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ABSTRACT

This document presents summaries of the 147 demonstration grant projects sponsored by the federal Pregnant and Postpartum Women and Their Infants initiative, which is jointly funded by the Center for Substance Abuse Prevention and the Maternal and Child Health Bureau. This substance abuse prevention grant program, the largest federally funded program of its kind to date, focuses on the development of innovative, community-based models of drug prevention, education, and/or treatment targeting pregnant and postpartum women and their infants. Services include prenatal, postpartum, and/or infant services. Most of the projects also provide direct services such as case management, parenting classes, and referrals to drug and alcohol programs. Many of the projects have developed outreach strategies and community networks of providers. Numerous projects are also involved in training providers and offering prevention education at the community level. The projects are carried out by a variety of agencies, with health departments and community-based organizations administering more than half of them. The projects reach a high number of low-income African American and Hispanic families. Crack/Cocaine is the drug most frequently addressed by these projects, followed by alcohol and polydrugs. The project summaries provide information about the projects' goals and objectives, methodology, evaluation, and experience to date, as well as names, telephone numbers, and office addresses of contact persons and directors. (JDD)

Prevention of Perinatal Substance Use

Pregnant and Postpartum Women and Their Infants Demonstration Grant Program

Abstracts of Active Projects FY 1993

National Center for Education in Maternal and Child Health
in conjunction with
MCHB
Maternal and Child Health Bureau

Prevention of Perinatal Substance Use

Pregnant and Postpartum Women and Their Infants
Demonstration Grant Program

Abstracts of Active Projects FY 1993

Maternal and Child Health Bureau

National Center for Education in Maternal and Child Health
Arlington, VA

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NCEMCH provides information services, educational materials, and technical assistance to organizations, agencies, and individuals with maternal and child health interests. NCEMCH was established in 1982 at Georgetown University, within the Department of Obstetrics and Gynecology. NCEMCH is funded primarily by the U.S. Department of Health and Human Services, through its Maternal and Child Health Bureau.

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FOREWORD

Agencies across the country are struggling to address the numerous health, drug prevention/treatment, and child welfare needs of pregnant and postpartum substance-using women and their children. It has become clear that no single agency can provide all of the services needed to effectively serve this population. This holds true in developing programs for pregnant and postpartum women and their infants on local, State, and Federal levels.

In 1989, the Center for Substance Abuse Prevention (CSAP) of the Substance Abuse and Mental Health Services Administration, with support from the Maternal and Child Health Bureau (MCHB) of the Health Resources and Services Administration, began funding demonstration grant projects under the Pregnant and Postpartum Women and Their Infants (PPWI) initiative. The two Federal agencies have collaborated in planning and implementing this joint initiative since the inception of the program. The Maternal and Child Health Bureau has a broad responsibility for improving the health of mothers and children. Historically, MCHB has demonstrated this commitment by taking a leadership role in developing State and local capacity to deliver services to all mothers and children, especially underserved populations. Collaboration between the Center for Substance Abuse Prevention and the Maternal and Child Health Bureau has combined MCHB's expertise in high-risk pregnancies, primary care, and outreach to underserved populations with CSAP's experience in community education and prevention/treatment of substance abuse, resulting in a much more comprehensive program.

We are pleased to present summaries of the 147 demonstration grant projects funded under the PPWI initiative. These summaries provide useful information about the diverse types of interventions being carried out by programs serving pregnant and postpartum substance-using women and their children.

We believe this document will be a useful tool for both local and State programs as they plan additional services for this population. Our ultimate goal is to improve the health of women at risk for alcohol and other drug use during pregnancy by improving the availability and quality of services such as prenatal care, drug treatment, and prevention education.

VIVIAN L. SMITH, M.S.W.
Acting Director, Center for
Substance Abuse Prevention

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PREFACE

The Center for Substance Abuse Prevention of the Substance Abuse and Mental Health Services Administration, with support from the Maternal and Child Health Bureau of the Health Resources and Services Administration, has jointly funded 147 demonstration grant projects under the Pregnant and Postpartum Women and Their Infants initiative. This program was authorized by the Anti-Drug Abuse Act, Public Law 100-690, passed by Congress in October 1988.

This substance abuse prevention grant program focuses on the development of innovative, community-based models of drug prevention, education, and/or treatment targeting pregnant and postpartum women and their infants. Services include prenatal, postpartum, and/or infant services. Most of the projects also provide direct services such as case management, parenting classes, and referrals to drug and alcohol programs. Many of these demonstration projects have developed outreach strategies and community networks of providers. Numerous projects are also involved in training providers and offering prevention education at the community level.

These projects are carried out by a variety of agencies, with health departments and community-based organizations administering more than half of them. Through the grant initiative, projects have successfully forged linkages between numerous types of organizations, including public health departments, alcohol and other drug prevention and treatment programs, and child welfare agencies. The projects reach a high number of low-income African-American and Hispanic families. Crack/cocaine is the drug most frequently addressed by these projects, followed by alcohol and polydrugs.

The timing of this publication provides a unique opportunity to include all projects funded under this joint initiative. This is the largest federally funded grant program to date targeting prevention of substance use during the pregnant/postpartum period. This document offers a valuable summary of the strategies that local communities are implementing to address this public health problem.

We hope that this publication will be used as a resource by persons interested in learning more about services for substance-using women and their children, and that it encourages networking among the projects offering these services. For further information, please contact Ellen Hutchins of the Maternal and Child Health Bureau at (301) 443-5720.

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CSAP/MCHB
SP-03803
09/30/91–09/29/96
Project Director(s):
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Gretchen Ehrsam

PROBLEM: According to the 1990 population census, there are 317 communities in the State of Alaska; the Yukon-Kuskokwim Health Corporation provides service to 48 villages within their mandated service area, the Yukon-Kuskokwim (YK) Delta. Alaska's recognized fetal alcohol syndrome (FAS) incidence rate is 4.2 per 1,000 live births, compared to the national rate of 1.7 per 1,000 live births. The YK Delta has an even higher rate of 4.5 per 1,000 live births, which is 2-1/2 times greater than the national rate. The Indian Health Service and the State of Alaska's Division of Alcohol and Drug Abuse have expressed concern that even these figures are not representative of the actual rates because so many births are unmonitored and postpartum care is sporadic. The State of Alaska is working to address these issues in a multifaceted effort.

Current levels of service to pregnant and postpartum women and their infants in the villages are limited to primary health care (provided by a community health aide) that excludes screening and risk assessment, support services that are minimal to nonexistent, and education and training that are offered infrequently. Prior to funding this project, travel costs and time limitations had prevented a comprehensive and viable response.

GOALS AND OBJECTIVES: This project has four primary goals:

1. Promote the involvement and coordinated participation of multiple organizations in the delivery of integrated, comprehensive services for pregnant and postpartum women using alcohol and other drugs, and for their infants;
2. Decrease the incidence and prevalence of drug and alcohol use among pregnant and postpartum women;
3. Reduce the incidence of abuse and neglect among children of alcohol and drug-using mothers; and
4. Improve birth outcomes and reduce infant mortality among women who use alcohol and other drugs during pregnancy, and decrease the incidence of infants affected by maternal substance use.

The project objectives are to achieve the following:

1. Identify 20 villages over the life of the project with which Celebration of Life will work intensively to promote traditional values in order to create a circle of caring around pregnant and postpartum women and their infants;
2. Facilitate development of a network of individuals who will promote traditional values and culturally appropriate interdependent roles and activities in the 20 villages;
3. Increase village-based support for clients by working in 20 villages with Community Intervention Team members who volunteer to assist Celebration of Life clients to work toward maintenance of sobriety;
4. Identify and recruit 144 women to participate in Celebration of Life throughout the project period;
5. Increase clients' knowledge of the risks of alcohol and drug use during pregnancy;
6. Increase clients' motivation to reduce or eliminate use of substances during pregnancy and in the postpartum period;
7. Increase knowledge of, enrollment in, and completion of substance abuse treatment programs for women who use substances during pregnancy;

8. Improve parent-child interactions among pregnant and parenting women who use substances;
9. Improve knowledge of traditional Native American parenting practices among pregnant and parenting women who use substances;
10. Increase rates of early registration for prenatal care and adequate prenatal care for women who use substances or are at high risk for using substances; and
11. Reduce complications of pregnancy and delivery (i.e., low birthweight, premature gestational age, congenital anomalies, fetal alcohol syndrome, fetal alcohol effects, neonatal intensive care).

METHODOLOGY: The project uses a model of community intervention and support to provide the impetus for pregnant and postpartum women to achieve and maintain a substance-free, health-enhancing lifestyle. A volunteer community intervention team (CIT) is the key service component of this project and serves as an outreach team. The team maintains weekly contact with clients, arranges support services, monitors client progress, supports clients in achieving sobriety, spearheads training and education dissemination, and provides counseling on traditional Native American principles and values. The project uses a variety of approaches, including early intervention and screening, intensive community involvement, patient and professional education, and appropriate intervention and referral delivered in a culturally sensitive manner. This project combines a unique and innovative blend of Native American principles with current medical and service delivery protocols.

EVALUATION: The success of this project depends largely on integrating traditional village-based support systems with professional services delivery systems within and beyond the village sites. Evaluation of this integrated model will incorporate process measures of individual perceptions, experiences, and interactions as well as outcomes and service utilization patterns. Formalizing traditional support networks as a part of the fetal alcohol syndrome service delivery innovations is likely to be affected by established relational networks, interrelations shaped by village histories and events, and individual responsiveness and receptivity to traditional knowledge and interventions.

The need to document both compliance with project objectives and the context within which the objectives are met will require quantitative and qualitative data collection approaches. Quantitative data with confidential numeric identifiers will allow merging of data sets over time. Qualitative data approaches will include participant observations and structured interviews.

EXPERIENCE TO DATE: The Celebration of Life project has targeted five villages to receive services during this fiscal year. Project staff have received and followed up on 63 referrals of substance-abusing pregnant and parenting women to the program. Coordination of services has been undertaken between Celebration of Life and key organizations in the YK Delta, such as the Community Health Aide Program, MCH/Family Planning Clinic, and the Regional Substance Abuse Program.

Case Management of Substance-Abusing Pregnant and Postpartum Women and Infants

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CSAP/MCHB
SP-02287
07/01/90–04/30/95
Project Director(s):
Jorge Luis Garcia, M.S.W.

PROBLEM: The Pascua Yaqui Tribe is a community of 6,000 people. Our birthrate is 160–170 births per year. Last year, there were 1,000 fertile females between the ages of 14 and 44 years. As in any impoverished area, chemical dependency has been and continues to be an entrenched problem. For the Pascua Yaqui community, chemical dependency is a problem for 15–20 percent of the pregnant women, resulting in fetal alcohol syndrome and other sequelae of substance abuse in pregnancy. In addition, we have identified 10 handicapped children who require case management secondary to substance abuse gestation.

GOALS AND OBJECTIVES: The Pascua Yaqui Tribe will implement a case management project whose goal is to make available and accessible coordinated prevention, early intervention, and treatment services to Pascua Yaqui Indian women who have a dysfunctional and destructive use of alcohol and/or drugs prior to, during, or after pregnancy.

The project objectives are to:

1. Promote the coordinated participation of multiple health providers;
2. Instruct and provide educational materials on medical risks of substance use during pregnancy to all pregnant Pascua Yaqui Indian women during the project period;
3. Provide case management to 30 pregnant or postpartum Pascua Yaqui Indian women who report dysfunctional/destructive use of substances during the project period;
4. Develop a service plan with the project participants that identifies problems, goals, tasks, and responsibilities in abstaining from the use of substances during pregnancy;
5. Support project participants in obtaining and attending to regular and routine prenatal care;
6. Identify women who need to obtain treatment and support and assist their entry into a program that meets their treatment needs; and
7. Provide medical case management to high-risk children (birth to 36 months of age) to reduce or ameliorate the impact of maternal substance abuse.

METHODOLOGY: The case management approach is a collaborative effort between the maternal and child health component of the Tribal Health Department, Indian Health Service, and Tribal Social Services, with support from the medical and behavioral health providers. The role of the nurse case manager is not to provide medical care, but to facilitate, encourage, and support pregnant and postpartum women to (a) abstain from or decrease the use of substances during pregnancy, (b) obtain and attend to regular and routine prenatal care, (c) obtain and enter treatment including support groups, (d) obtain and attend to regular and specialized well-baby care, and (e) facilitate a user-friendly system of comprehensive care. The nurse case manager is not a referral agent but a proactive participant in teaching the patient to use the service system available to her and to advocate with system providers to become user friendly.

To reach our program goals, we will:

1. Develop clearly defined modes of interaction with medical and human service agencies to strengthen linkages, avoid duplication, and meet patient needs;

2. Identify and enroll both postpartum substance-abusing patients and pregnant substance abusers in the community who are not receiving prenatal care;
3. Provide, directly or through referral, a range of well-coordinated maternity and drug treatment services, including intensive case management;
4. Increase the use of early and continuous prenatal care by the target population;
5. Decrease and/or eliminate the use of substances during pregnancy by the target population;
6. Provide postpartum home visits, escort services, parenting education, and other supportive followup interventions to assist patients in obtaining and using existing community services; and
7. Directly arrange for the comprehensive care of the infants and provide close followup of referrals.

EVALUATION: The process evaluation of the case management project will focus on the structural implementation of the project and a quantitative and qualitative description of the target population, clients served, services offered, and services provided (including names of providers and locations of services).

The outcome evaluation will attempt to use a static group comparison of those clients who chose to participate, those identified in the target population who were not selected or chose not to participate in the project, and outcome data on any other comparable baseline group not receiving special prenatal/postpartum services. The validity of these comparisons will be limited by the nonequivalency of the comparison groups and the limited demographic match of the baseline group.

EXPERIENCE TO DATE: The project has been well received by the medical and behavioral health providers working with the target population.

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CSAP/MCHB
SP-01530
07/01/90-04/30/95
Project Director(s):
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PROBLEM: Pregnant and postpartum women who abuse drugs endanger the lives of their children. By disregarding substance abuse problems, these women increase the likelihood that their children will suffer from addiction withdrawal, developmental problems, physical and mental abuse, neglect, and AIDS. All pregnant women need to be aware of the harmful effects that drugs and alcohol can have on their children. Those at highest risk—low-income, young minority women of childbearing age—are the most difficult population to impact. They are least likely to obtain treatment for substance abuse problems, receive prenatal or postpartum care, or seek out special services to deal with their children's problems. Early medical and educational intervention can minimize the negative effects of maternal substance abuse in these children's lives.

GOALS AND OBJECTIVES: *Las Madres* is a program for mothers and children which seeks to achieve four goals:

1. Decrease or eliminate substance abuse among pregnant and postpartum women;
2. Increase the ability of women to establish and maintain healthy lifestyles for themselves and their families;
3. Minimize the negative impact of pregnant and postpartum maternal substance abuse on children; and
4. Increase the amount of services available to women and children who suffer from substance abuse-related problems.

The project objectives to help meet these goals are to:

1. Establish a referral network to significantly increase women's access to existing support services for substance abuse, medical, and other problems, resulting in subsequent decreases in substance use;
2. Establish a day treatment center which will provide intensive substance abuse education/counseling onsite to significantly reduce substance use in pregnant/postpartum women;
3. Establish a case management system and referral system to provide all needed support services to pregnant/postpartum women;
4. Assist mothers in acquiring skills needed to provide a healthy environment and lifestyle for their children;
5. Establish a therapeutic learning center for children of pregnant and postpartum substance-abusing women to help minimize the effects of maternal substance abuse;
6. Provide advocacy at the local, State, and national levels for needed programs for the target population; and
7. Disseminate findings of this demonstration project at the local, State, and national levels.

METHODOLOGY: A day treatment center, *Las Madres* has been established for substance-abusing pregnant and postpartum women and their children. This center is used for a variety of services, including

case management and referral, outreach, counseling and education, physical resources (e.g., food and clothing), and a therapeutic learning center.

The following is a description of each of the major components provided by *Las Madres* to approximately 50 women annually:

1. Case management and referral: The needs of each woman are determined by administering a complete biopsychosocial assessment. A treatment plan is developed for each woman, incorporating the findings of the initial assessment. Short- and long-term goals are established to meet the needs identified. Referrals are made to other community agencies to address specific needs (e.g., health care, housing, residential substance abuse treatment, and prenatal and postnatal care). A plan for counseling and education through the center is outlined for each client, including the waiting period before acceptance into a residential treatment program, if appropriate. Visits to the client's home are made at least monthly to ensure continued contact and participation.
2. Counseling and education: For all women who participate in the day treatment program (excluding those who immediately enter other treatment or who require only case management and support), the following types of counseling and education are provided:
   a. Support groups: A variety of groups are provided to all participants. At least 8 hours of group sessions each week are expected from all participants.
   b. Seminars: Participants are provided with a variety of educational experiences covering such topics as family dynamics, nutrition, community resources, budgeting, and many others. Participants are expected to attend at least one seminar each week. In addition, retreats offered approximately every 3 months provide extended educational and therapeutic experiences.
   c. Parenting education: A 16-week parenting curriculum is taught which addresses both child development and specific parenting skills. Mothers also participate weekly in hands-on activities with their children in the therapeutic learning center.
3. Physical resources: Through community donations, *Las Madres* assists in providing clothing, food, and a variety of other goods needed by the women and their children. By participating in the day treatment center, the women earn the privilege of using these resources. Additionally, a resource library at the center contains information on areas of interest for the participants (e.g., immunizations, nutrition).
4. Therapeutic learning center: A licensed therapeutic learning center for 32 children (ages birth to 5 years) is provided in the day treatment center facility. A certified teacher provides needed screening, testing, and referrals to meet the specific developmental needs of each child. Family service plans developed for each child include both educational goals at the center and goals for the family within the home. A structured program is provided to all children 6 hours per day, 4 days per week. This program provides developmentally appropriate mental, physical, social, and emotional stimulation for all children in the program. One day a week, the learning center also serves as a hands-on classroom for mothers to learn how to appropriately interact with and work with their children.

EVALUATION: Three levels of evaluation are being conducted: Process, outcome, and impact. The process evaluation documents the development and implementation procedures throughout the project. The outcome evaluation measures the effectiveness of the program in meeting the goals and objectives. The impact evaluation measures the extent to which *Las Madres* effects changes in local, State, and/or national policies.

EXPERIENCE TO DATE: The program has been providing services for 2 years. Approximately 25 women and 30 children participate on a regular basis in the day treatment center. Many linkages with the community have been established, and *Las Madres* staff provide information regarding maternal/child addiction and the program to many groups on a monthly basis.

Long-Term Comprehensive Services to Mothers and Infants

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CSAP/MCHB
SP-01638
07/01/90–04/30/95
Project Director(s):
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PROBLEM: Substance abuse negatively impacts both mother and child. It affects the mother's health and life expectancy, as well as her emotional well-being. It increases the risk of spontaneous abortion, prematurity, and stillbirth during pregnancy, and it may affect the neurodevelopment of the infant after birth. Intervention to reduce drug and alcohol use, improve coping, and provide the information and skills necessary for effective parenting is crucial. At the same time, several barriers to effective intervention exist. Pregnant women who are substance abusers may avoid contact with or be overlooked by care providers. They may have a range of pressing therapeutic, financial, social, legal, and medical needs, and are likely to be difficult to engage in treatment. Services are likely to be fragmented and difficult to access.

GOALS AND OBJECTIVES: This project has four primary goals: (1) To increase the availability and accessibility of prevention, early intervention, and treatment services; (2) to decrease the incidence and prevalence of drug and alcohol use among pregnant and postpartum women; (3) to improve birth outcomes and decrease the incidence of infants affected by maternal substance use; and (4) to reduce the severity of impairment among children born to substance-using women.

The project objectives are to:

1. Increase community awareness of dangers posed by drug use during pregnancy and publicize the availability of program services;
2. Identify pregnant drug users requiring services of this project at an earlier stage of pregnancy than is currently occurring;
3. Maximize the percentage of women receiving program services following identification and referral;
4. Access the full range of available financial assistance, medical care, and social services required by each pregnant drug user;
5. Reduce the level and frequency of drug use during pregnancy and after delivery, and increase the women's general level of emotional functioning;
6. Increase the client's knowledge of the impact of prenatal behaviors on birth outcomes;
7. Increase the stability of the social/home environments of pregnant and postpartum drug users;
8. Improve the knowledge of mothers and foster mothers regarding the special needs of and most appropriate interactions with drug-exposed infants;
9. Increase clients' self-confidence in and satisfaction with the maternal role; and
10. Provide increased educational opportunities for medical residents, nursing students, counseling students, and other appropriate professional groups.

METHODOLOGY: This program is a joint effort of three organizations: The University of Arizona Department of Pediatrics; CODAC Behavioral Health Services, Inc.; and La Frontera Center, Inc. It establishes a comprehensive, case-managed continuum of services to address the multiple needs of substance-using pregnant and postpartum women and their infants. Services will begin as early in the pregnancy as possible and will extend for up to 1 year after delivery.

To accomplish the program objectives, a six-pronged approach will be employed:

1. Educational programs, public information campaigns, and specifically targeted outreach efforts will be used to heighten public awareness, alert potential referral sources to the importance of early identification and intervention, provide information on program services, and provide prepregnancy education to high-risk women;
2. A mobile intake team will be used to provide immediate response to referrals from a variety of sources;
3. Intensive outpatient therapy will focus on reducing drug use and improving self-esteem and general coping skills;
4. Case management will ensure that ancillary needs are met;
5. An infant center/therapeutic nursery will provide ongoing evaluation, monitoring, and individual care plans for drug-exposed infants while training parents in their infants' special needs; and
6. Training programs will be developed to enhance the ability of professionals and paraprofessionals to recognize and provide services to pregnant drug users and their infants.

EVALUATION: Both program processes and program outcomes will be assessed. The process evaluation will be conducted from two perspectives: Evaluation of program activities and evaluation of client experience. The evaluation of program activities will provide information regarding the actual conduct of each individual component of the program. Client experience in the program will be tracked through the use of individual logs.

Several different strategies will be used to assess program outcomes. Time-series analysis (e.g., asking clients to complete self-esteem and social support measures at periodic intervals) will be used to evaluate changes in the women as a result of participation in the program. The impact of time of enrollment in the program will be evaluated by comparing the birth outcomes and developmental indices of infants whose mothers were enrolled early in pregnancy to those of infants whose mothers were enrolled at delivery. Finally, correlations between selected program and client characteristics and selected outcomes will be examined.

EXPERIENCE TO DATE: The program has maintained a steady client caseload since its inception. Many clients have completed the program successfully; some, however, have discontinued services prematurely. A current focus for both program planning and program evaluation is to analyze which factors are most closely associated with client success and to modify intervention procedures based on this analysis. Preliminary evidence suggests that enrollment early in pregnancy, pressure from protective services personnel and probation officers, and early rapport with a specific staff member contribute to success. We are also experimenting with tangible incentives for program participants. Most infants in the program have scored within normal limits on tests of early development. What appear to be higher than expected numbers of visual and motor problems are being identified in the earliest months, and treatment plans have been developed.

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CSAP/MCHB
SP-04670
05/01/92–04/30/97
Project Director(s):
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PROBLEM: In Arkansas, as elsewhere, substance abuse during pregnancy is the most frequently missed obstetric diagnosis. An anonymous urine screening by Enzyme Multiplied Immunoassay Technique (EMIT) assay of 613 consecutive patients presenting for prenatal care or delivery at The University Hospital of Arkansas showed that 11 percent of the women tested positive for illicit drugs. Even more women would have tested positive if they had been screened for the legal drugs of tobacco and alcohol.

The harmful effects of maternal substance abuse have been well documented. Risks for spontaneous abortion, abruptio placentae, infections, and premature labor are increased. Surviving infants are more likely to suffer from birth defects, growth retardation, life-threatening infections, and long-term neurobehavioral effects. These infants are at increased risk for sudden infant death syndrome, or they may live to face a life of abuse and neglect. The deleterious effects of in utero drug exposure are compounded by the inadequate parenting skills of a mother who continues her substance-abusing patterns. Substance abuse in pregnancy rarely stops without intensive, therapeutic intervention. Although there is need for comprehensive, coordinated specialty services for this at-risk population, there are no comprehensive treatment programs for this population in Arkansas.

GOALS AND OBJECTIVES: The Arkansas Center for Addiction Research, Education, and Services (AR CARES) has four primary goals:

1. Promote the involvement and coordinated participation of multiple organizations in the delivery of integrated, comprehensive services for alcohol- and drug-using pregnant and postpartum women and their infants;
2. Decrease the incidence and prevalence of drug and alcohol use among pregnant and postpartum women;
3. Improve the birth outcomes of women who use alcohol and other drugs during pregnancy and decrease infant mortality and the incidence of infants affected by maternal substance abuse; and
4. Reduce the severity of impairment among children born to substance-using mothers.

The project has established the following objectives:

1. Develop the AR CARES Advisory Board as an informed, influential, and active advocacy group that promotes effective and culturally appropriate treatment of pregnant and parenting substance-abusing women and their children;
2. Obtain formal commitments from at least 25 organizations to participate with AR CARES and/or other organizations delivering integrated, comprehensive services to substance-abusing pregnant and parenting women and their children;
3. Disseminate information about services for substance-abusing pregnant and parenting women and their children to those organizations serving as information clearinghouses for the target populations;
4. Design, develop, and implement an intensive outpatient treatment program;
5. Increase referrals of pregnant/postpartum substance-abusing women for substance abuse treatment;

6. During the first 2 project years, provide continuing education programs on recognition and referral for perinatal substance abuse to health care, drug treatment, and social services providers who are likely to encounter substance-abusing pregnant/postpartum women;
7. Each year, 36–48 substance-abusing pregnant/postpartum women will be admitted to the AR CARES model treatment and prevention program;
8. Women admitted to the AR CARES program and their infants will receive followup services for the duration of the project;
9. Sixty percent of women who complete the AR CARES intensive outpatient treatment program will be drug-free at 1 year postpartum, and 50 percent will be drug-free at 2 years postpartum;
10. Eighty percent of infants born to mothers enrolled in AR CARES will be born drug-free;
11. Eighty percent of infants born to mothers enrolled in AR CARES will be born with growth parameters of height, weight, and head circumference appropriate for gestational age;
12. Eighty-five percent of the infants whose mothers are enrolled in AR CARES will be born after 37 completed weeks of gestation;
13. One hundred percent of live-born infants whose mothers are enrolled in AR CARES at the time of delivery will receive a complete physical assessment within the first 2 days of life; and
14. Eighty percent of infants born to mothers admitted to AR CARES will receive appropriate health and developmental assessments during the first 2 years of life.

METHODOLOGY: Through an established perinatal outreach program (the Arkansas High Risk Pregnancy Program), Arkansas CARES will meet its goals through (1) continuing education of health care, drug treatment, and social support providers designed to increase identification, intervention, and referral of pregnant women in need of specialty services; (2) coordination of existing services available to pregnant and parenting substance-abusing women and their children; and (3) implementation of a model intensive outpatient treatment program designed to fill a void in currently available services. The intensive outpatient treatment program will be provided by a multidisciplinary team and will be based on self-in-relation theory. As much as possible, a one-stop shopping approach will be used in coordinating women's and children's health care, drug treatment, and social support services. Certified service coordinators will work with families to identify their strengths and establish individual family service plans. Enhancement of parenting skills will be given special priority. Supportive extended care services will enhance relapse prevention. The project also provides for piloting an automated AR CARES data base.

EVALUATION: Process and outcome evaluations will assess extensive data on the major project activities, including provider education, collaboration of at least 25 agencies in delivering needed services to the target population, and effectiveness of the AR CARES intensive outpatient treatment program in effecting the mothers' drug abuse recovery and in promoting optimal birth and children's health outcomes. Comparison data from substance-abusing pregnant women who did not participate in the AR CARES intensive outpatient treatment program will be available from the University Hospital's Perinatal Data Base. An experienced senior research analyst from Arkansas Advocates for Children and Families will conduct the project evaluation.

EXPERIENCE TO DATE: The multidisciplinary staff of AR CARES has been hired. The project director is a master's level certified nurse practitioner. Other full-time staff members include a master's level clinical social worker, a master's level certified perinatal nurse practitioner, a certified substance abuse counselor, a certified targeted case manager, and an administrative assistant. Additionally, a number of professional consultants have been active with the project. A site has been leased and staff members have developed the program curriculum and records. A computer data base is being designed. Several articles have been written and staff have participated in 22 continuing education programs for providers. The advisory board has been selected and work is under way to formalize commitments made by community service providers. The intensive outpatient treatment program is scheduled to admit patients in mid-November.

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CSAP/MCHB
SP-03015
03/01/91-02/28/96
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PROBLEM: The Alliance for Infants and Mothers (AIM) program addresses the problems resulting from maternal drug use. Drug-exposed infants account for an average of 15 percent of all births at San Joaquin General Hospital. Drug-exposed infants face countless medical and developmental problems resulting in high costs in terms of both dollars and human suffering.

Without effective intervention, it can be anticipated that the already overburdened juvenile justice, education, social welfare, and health systems will be impacted significantly as these young individuals grow up. Intervention, however, is difficult for even the most motivated clients. Women seeking treatment face barriers such as cost, lack of transportation and child care, guilt, fear of reprisal, and the seductiveness of the drug itself. A comprehensive program is needed that will coordinate and integrate all necessary services in one location with child care and transportation provided.

The project has identified the following goals:

1. Promote the involvement and coordinated participation of multiple organizations in the delivery of comprehensive services for substance-abusing pregnant and postpartum women and their infants;
2. Decrease the incidence of substance abuse by pregnant women;
3. Improve birth outcomes of women who used alcohol/drugs during pregnancy, and decrease the incidence of infants affected by maternal substance use; and
4. Reduce the severity of impairment and improve the health and well-being of children born to women who use alcohol/drugs during pregnancy.

The following objectives have been identified throughout the project period:

1. Demonstrate that 80 percent of participating agencies report improvement in service delivery to the target population resulting from integrating and coordinating services of at least six agencies at the AIM program site;
2. After identification/assessment, enroll a minimum of 150 women into the AIM program through a comprehensive outreach strategy including primary and secondary prevention activities;
3. Decrease the incidence of substance use among a minimum of 100 women by 50 percent, by implementing a comprehensive substance abuse day treatment program;
4. Using comparative baseline data from clinical records of infants born to nonparticipating mothers, improve (by a percentage to be determined after analysis of baseline) the birth outcomes of a maximum of 100 infants within the target population by providing comprehensive case management, intensive substance abuse day treatment, onsite prenatal care, and individualized guidance; and
5. After establishing a baseline with a comparison group of nonparticipants and assessing developmental status, increase (by a percentage to be determined following analysis of baseline data) the social, gross motor, fine motor, and personal/social functioning for a maximum of 60 infants during the project period by providing health care, parenting skills training and guidance, and individualized developmental interventions.

METHODOLOGY: Under the leadership of the San Joaquin County Office of Substance Abuse, Perinatal Services, the AIM project coordinates the services of a variety of public and private agencies in a center-based collaboration. The project provides a full range of services which empower clients to develop a drug-free lifestyle and to provide a safe, nurturing home for their children and themselves.

The project demonstrates a philosophy of treatment designed to reduce fear and encourage client motivation. A protocol being implemented by San Joaquin County Health Care Services staff is designed to develop client trust and willingness to seek treatment by offering consistent, comprehensive care; establishing a supportive, nonthreatening environment; and using a unique incentive plan.

Staff members work with each client to develop an individualized treatment and recovery plan. A similar plan will be developed to address their children's health, social, and developmental needs. Services are provided which offer clients opportunities to work toward their goals. Clients also engage in activities with their infants and children to gain experience in positive parenting while surrounded by helpful, supportive staff. An important element of the program is the role modeling offered through interaction with staff and program alumni.

EVALUATION: The evaluation for this proposal provides a comprehensive review of the entire project. Highlights of the plan include the following:

1. Process evaluation, which provides a comprehensive description of project activities and analyzes each project component as it occurs, with followup activities as appropriate;
2. Outcome evaluation, which measures the impact of project activities on the behavior of clients and their immediate families;
3. Accountability evaluation, which focuses on the implementation and the success of project goals and objectives;
4. Quasi-experimental evaluation, which provides for the comparison of project participants with a nonparticipating comparison group;
5. An experienced evaluator with a team that can relate to the client population to be selected; and
6. A focus on replication as an integral part of the evaluation process.

EXPERIENCE TO DATE: The program has been serving clients for just over 1 year, with the following accomplishments. The project has:

1. Formalized the intake and assessment process; and developed forms for documentation of essential information and a process for developing individual treatment plans for clients and their children;
2. Implemented a case management system using multidisciplinary staff to process information and develop/revise the treatment approach;
3. Formed a policy committee to provide guidance, set direction, and ensure that the program is meeting goals and objectives;
4. Developed and implemented pediatric medical and high-risk assessment process and referral linkages;
5. Established a network for program interconnections with various service agencies and medical providers;
6. Expanded and improved the incentive system for program participation and retention;
7. Established an aftercare program; and
8. Developed a strategic outreach plan for recruitment, retention and followup.

Specific outcomes to date include the following: One hundred percent of women in the program received comprehensive, enhanced prenatal care; 100 percent of the children in the program received regular pediatric care, shots, developmental assessments, and assurance of developmental treatment, if necessary. Of 22 infants born to participants, 18 (82 percent) were toxicology negative, 20 (91 percent) are in the mother's custody, and 18 were of normal birthweight. Of the 42 women who entered the program, only 12 dropped out (and 10 of the dropouts still maintain some contact with the program).

Born Free: Perinatal Substance Abuse Intervention and Recovery Model

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CSAP/MCHB
SP-01151
09/01/89–08/31/94
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PROBLEM: Substance abuse among pregnant women is a growing national and statewide problem. In California, the State Department of Alcohol and Drug Programs estimates that 12,000 women use drugs and alcohol during pregnancy each year. A recent national survey (which included Contra Costa County) indicated that 1 in 5 babies is exposed to drugs prenatally and approximately 1 in 10 has drugs in the urine at birth (Chasnoff, 1989). These data are reflected in studies conducted at Contra Costa County's Merrithew Hospital (the county facility) in which 20 percent of women who delivered at the hospital were identified by the perinatal unit protocol as substance abusers. Half of the women identified by the protocol had newborns with positive urine toxicologies indicating maternal drug use within 48 hours of delivery.

The concept of substance abuse as a commonly occurring, treatable disease has created the need for health care providers to screen, diagnose, and refer affected patients and their families to appropriate recovery resources.

GOALS AND OBJECTIVES: The primary goals of the Born Free Project are to:

1. Increase the availability and accessibility of prevention, early intervention, and treatment services for women abusing alcohol and other drugs;
2. Decrease the incidence and prevalence of drug and alcohol use among pregnant and postpartum women;
3. Improve the birth outcomes of women who use alcohol and other drugs during pregnancy; and
4. Promote the involvement and coordinated participation of multiple organizations in the delivery of comprehensive services for substance-using pregnant and postpartum women and their families.

The primary objectives of the Born Free project are to:

1. Increase the number of women at risk for prenatal alcohol and drug use who enter prenatal care before the end of their second trimester;
2. Increase the number of accessible comprehensive alcohol and other drug services for pregnant and postpartum women by adding a substance abuse treatment component to the county's existing perinatal health care system;
3. Retain women recruited from prenatal clinics and labor and delivery units in Born Free's intensive outpatient treatment program for at least 6 months; and
4. Improve the integration of delivery of services among the key divisions within the Health Services Department to ensure that all pregnant and postpartum women who have substance abuse problems receive adequate perinatal care, screening, and referral to treatment.

METHODOLOGY: The Born Free project seeks to demonstrate the viability of integrating substance abuse intervention and outpatient recovery services with an existing comprehensive public perinatal health care system. This will be accomplished by adding alcohol and drug recovery services to prenatal clinics and hospital labor and delivery services, and by providing intensive perinatal addiction training to hospital and clinic staff and human services providers serving this population.

Born Free introduces a new prenatal substance abuse screening tool called the "4Ps" which is based on concepts of chemical dependence as a chronic relapsing family disease. The tool screens for substance use (1) during pregnancy, (2) during the client's past, (3) in a partner with a drug or alcohol problem, and (4) in a parent who is addicted to drugs or alcohol. The tool is administered to all 2,000 women who enroll annually in the county's comprehensive prenatal program and the 1,700 women who deliver at the county hospital. Appropriate women are referred to Born Free for indepth substance abuse assessments and nonresidential recovery services. Born Free substance abuse counselors are located in the county's three largest prenatal clinics, the local jails, and in the labor and delivery unit, and they collaborate closely with the nurses, social workers, nutritionists, and physicians who comprise the other members of the perinatal team. Born Free services also include a parenting component and onsite child care during recovery group sessions.

Born Free has also developed a joint intervention process with the county's Child Protective Services. Born Free counselors participate in developing a family recovery plan which is part of the client's reunification plan. This helps provide additional impetus for the mother and her entire family to participate in recovery activities.

Essential to the success of this perinatal substance abuse intervention and recovery model is its integration with a network of service providers. Born Free provides leadership in coordinating perinatal substance abuse efforts and promotes and implements intensive professional training.

EVALUATION: The evaluation of this project includes: (1) A process evaluation which describes in detail the project's services, including an analysis of the collaborative efforts; (2) analyses of patient records to measure the project's success in recruiting and retaining clients in recovery services, as well as birth outcomes for babies to Born Free clients; and (3) interviews to identify women's reasons for participating (or not participating) in the Born Free program, both initially and on an ongoing basis.

EXPERIENCE TO DATE: Today, the Born Free project is an integral part of the County's Comprehensive Perinatal Care System and works closely with other county departments such as Social Services and Drug and Alcohol Programs. The project employs seven full-time and two part-time staff members, and several interns and volunteers.

Project achievements to date include the following:

1. Receipt of the top honor award for innovative public hospital programs in California by the California Association of Public Hospitals in 1990;
2. Consultation and intervention with more than 600 addicts and alcoholics in prenatal clinics and in the hospital labor and delivery unit each year;
3. Weekly recovery groups facilitated by professional substance abuse counselors in all county prenatal clinics;
4. Development of a new substance abuse screening instrument specifically designed for prenatal clinics and administered to 2,000 prenatal patients each year and used by other perinatal providers throughout the State of California;
5. Participation in regional, statewide, and national forums on the development of perinatal substance abuse policies, including the California Select Committee on Children and Families, the University of California Family Welfare Research Task Force on Perinatal Substance Abuse and AIDS, and the Federal Center for Substance Abuse Prevention; and
6. Training in perinatal addiction for more than 500 professionals in the Bay Area and throughout California.

***Casa Rosa:* Residential Treatment for Women and Children**

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CSAP/MCHB
SP-02950
09/30/90–05/31/95
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PROBLEM: Providing substance abuse treatment for pregnant and postpartum women has become a critical national need. In addition to adult needs for sobriety, substance abuse presents significant risks for the fetus and infant, both chemically and environmentally; infants intoxicated in utero often have poor birth outcomes, and living in a home where substances are abused may affect the infant's subsequent development. In order to attain sobriety, a woman needs to be able to focus on her recovery with supports available from counselors and peers. For pregnant or postpartum women, attempting to become sober often means separation from their infant. This, too, may have deleterious effects, both on the infant's development (resource limitations often result in infants having multiple placements during a time when stable caregiving is important) and on mother-infant bonding, which cannot occur unless mother and infant have time together.

Casa Rosa differs from other residential drug treatment programs because it offers mothers an opportunity to attain sobriety while staying with their infants. The program is designed to increase positive birth outcomes by allowing women to enter the program during their pregnancies, and to facilitate mother-infant attachment and development after the infant is born.

GOALS AND OBJECTIVES: The goals of the project are to:

1. Promote the involvement and coordinated participation of multiple organizations in the delivery of comprehensive services for substance-using pregnant and postpartum women and their infants;
2. Decrease substance use by pregnant and postpartum women who are abusing drugs and alcohol;
3. Improve the birth outcomes of infants born to women using drugs and/or alcohol during pregnancy, and decrease the incidence of infants affected by maternal substance abuse;
4. Improve the self-sufficiency of recovering women and their families; and
5. Promote healthy family functioning for program participants.

The related project objectives are to:

1. Increase involvement and coordination of activities with community agencies through participation in community task forces and involvement of community agencies in Casa Rosa on a regular basis;
2. Decrease the use of drugs and alcohol among women entering Casa Rosa through residential treatment and a variety of intensive counseling services;
3. Improve the birth outcomes of infants born to women using drugs and/or alcohol during pregnancy, and decrease the incidence of infants affected by maternal substance abuse;
4. Facilitate client achievement of aftercare goals by providing advice and support both before and during aftercare transitions; and
5. Improve parent confidence and mother-infant bonding through parent participation in parenting classes, self-esteem programs, and family support groups.

METHODOLOGY: Through the collaborative efforts of drug and alcohol agencies throughout the county, a residential treatment facility has been established for women who are pregnant or postpartum. This facility

allows pregnant and postpartum women to receive state-of-the-art drug and alcohol services, including individual counseling, group counseling, acupuncture, drug testing, 12-step meetings, and peer counseling. Women receive medical care and parent education both prenatally and after delivery. Women remain with their infants postpartum while receiving support services, including parent education, lactation education, and respite care, and infants receive medical and developmental assessments and interventions. Women transition into three-quarter-way houses and finally into the community. They are aided in developing and pursuing a plan for independent living while continuing to receive support services for themselves and their infants.

EVALUATION: The project has been designed with a process-product evaluation. Process measures will include client use of different treatment components (e.g., group therapy, individual therapy, and infant development program) as well as evaluation of the level of client participation in each activity. Outcomes will include measures of sobriety, infant development, and mother-infant interactions. The evaluation procedures will be used for formative purposes (i.e., to provide ongoing feedback regarding the effectiveness of the clinical services) as well as for summative evaluation of the project as a whole. Given the small number of individuals entering the program, a qualitative description of individual cases will also be used.

EXPERIENCE TO DATE: The program provides state-of-the-art drug and/or alcohol treatment and prenatal and postpartum care for 15–20 women each year, and a structured therapeutic program for infants and children, including developmental assessments and medical care. Mothers spend several hours each day in the Infant Center with their children, receiving ongoing interventions designed both to improve the quality of their attachment with their infants and to improve confidence in caring for their children.

Treatment is being administered in three phases. Phase I is a highly structured residential treatment facility. Women and children are admitted as early as possible in the mothers' pregnancies, and live in the facility and receive treatment until at least 3 months postpartum. Phase II is a three-quarter-way house in the same neighborhood, shared by five of the women and their children. During phase II (approximately 6 months), families continue to receive treatment at the phase I house. They also begin vocational training or education and receive extensive assistance in finding permanent housing. Phase III is the aftercare component. Families live in the community and receive community-based outpatient services. They remain connected to Casa Rosa through weekly parenting support groups and the First Steps caseworkers, who follow all clients from recruitment through aftercare.

Case Management for Low-Income Cocaine-Using Women

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CSAP/MCHB
SP-02520
09/30/90-07/31/95
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PROBLEM: There is a great need for effective, comprehensive drug treatment and prevention efforts among cocaine-using pregnant and postpartum women in the Los Angeles area. As in many urban areas, the use of crack cocaine in Los Angeles is reaching epidemic proportions, especially among black women of childbearing age. The Case Management for Low-Income, Cocaine-Using Women project will be located in the southwest region of Los Angeles County, which in 1988 ranked first in the number of babies born to drug-addicted mothers. Although one of five regions in the county, it accounted for 31 percent of the county's total.

The research literature indicates that cocaine-using pregnant and postpartum women need multiple services that typically cannot be provided at one setting. In addition, they need to acquire parenting and life-coping skills. The case management project attempts to provide more comprehensive and coordinated treatment for this population.

GOALS AND OBJECTIVES: The goals of the case management project are to: (1) Develop a comprehensive, collaborative, case-managed drug abuse treatment system for cocaine-using pregnant and postpartum women; and (2) assess the extent to which case-managed drug abuse treatment, client characteristics, and their interaction predict success on selected outcome measures such as reduced drug usage, increased parenting knowledge, improved parenting behavior, increased self-sufficiency, and reduced criminal behavior.

The project objectives are to:

1. Establish a coordinated system of agencies to provide services to cocaine-using pregnant and postpartum women to meet their essential needs, including medical services, counseling, drug-free support system, social services, and vocational training;
2. Document the history of the coordinated system so that it can be replicated in other communities, including a description of the needs assessment for the target population, agreements between cooperating agencies, problems and difficulties of implementation, and strategies and resolutions for implementation problems;
3. Provide to 150 women treatment modalities that incorporate components that have been shown to be effective or promising in other programs, including:
   a. Individualized, personalized case management;
   b. Residential treatment of mothers involving their infants/children;
   c. Structured, intensive day treatment;
   d. Criteria-based treatment; and
   e. Didactic and experiential training in parenting and life coping skills;
4. Collect client, program, and community information of sufficient depth and coverage, and over a sufficient period of time, to assess the relative contribution of many factors, including treatment, in effecting success on outcome measures; and

5. Provide case management and followup services to all clients for 18 months following admission to the program.

METHODOLOGY: The case management project will build upon the existing women's residential and outpatient drug treatment program at Tarzana Treatment Center's Long Beach, California, site. The project will target low-income, cocaine-using pregnant and postpartum women.

Up to 50 participants per year will enter the project. Out of the 150 admissions, we expect to have a retained sample of at least 90 women who complete at least 2 months of treatment. Half of the retained women will be in residence in the drug-free therapeutic community women's program, and half will be outpatients in a structured, intensive day treatment program at the Long Beach facility. Women in residence will live at the center with their infants/children from 6 to 12 months, with exceptions staying as long as 18 months. Day treatment clients will participate in a similar program, including interaction with their infants and children in our therapeutic nursery. Women will be provided with approximately 6 months of case management services after they complete treatment. Clients who drop out of treatment or relapse after treatment will be encouraged to reenter treatment.

Upon acceptance into the project, each woman will be assigned to a case manager who will assess need, coordinate services, monitor progress, and provide support. Information on the women and their infants/children, and on the services they receive, will be collected during their treatment and 3 months posttreatment. The women's use of drugs, and their self-sufficiency, criminal behavior, and parenting knowledge and behavior, will be analyzed at various stages of participation in the project to determine how knowledge and behavior have changed.

EVALUATION: The process evaluation will document the development, as well as the implementation, of the case management system and interagency collaboration. Data will be collected on what services were provided to clients, who provided the services, and how these services related to client outcome.

Clients and their infants will be assessed on a number of psychological, behavioral, and health measures upon admission, during treatment, and following treatment to evaluate the impact of various services on outcome measures such as parenting knowledge and behavior, drug use, criminal behavior, and self-sufficiency (e.g., employment and housing).

Treatment modalities such as intensive outpatient treatment, residential treatment, and no treatment will also be compared with one another.

EXPERIENCE TO DATE: The project became operational during its first year, with classes and groups in life skills, addiction education, parenting, and family issues offered to participants. All clients participated in the therapeutic nursery and received case management services. The staff completed assessments on both mothers and infants. As of December 1992, 46 residential and 36 day treatment clients had received treatment.

The evaluation plan is being implemented, and clients are assessed during treatment and 3 months posttreatment. Some of the instruments used include the Addiction Severity Index (ASI), the Culture-Free Self-Esteem Inventory, the Basic Personality Inventory, the Nursing Child Assessment Satellite Training (NCAST) instrument, and the Denver Developmental Screening Test. Staff members have received a 2-day training on administering the ASI.

Difficulties experienced during the first year included recruitment of day treatment clients, staff turnover, and the reluctance of some social service agencies to provide written memorandums of understanding. All staff positions are filled and the program has stabilized during its second year.

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CSAP/MCHB
SP-01171
09/30/90–08/31/93
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PROBLEM: The tragic consequences of in utero drug exposure are increasing for infants and families. In addition to prenatal and perinatal complications, drug- and alcohol-exposed infants may experience neurological disorders, developmental disorders, and a range of behavioral abnormalities. They also may be at risk for fetal alcohol syndrome and less severe but still debilitating alcohol-related birth defects. Many of these children are also at high risk for perinatal HIV infection.

Furthermore, chemical dependency may compromise the abilities of mother and infant to interact in ways essential for healthy child development. Without a significant intervention to improve the woman's ability to protect and care for herself and her infant, many of these children are placed in foster care and experience frequent changes in caretakers. The experience of foster care placement may have long-term deleterious consequences. Drug-exposed infants have special needs that make it difficult to find appropriate foster care homes, so that many of these babies remain boarding in hospitals awaiting foster care placement.

GOALS AND OBJECTIVES: The goals and objectives of the project are to:

Goal 1: Promote the health, mental health, and development of drug-exposed infants.

Objectives:

a. Identify and treat problem areas in children's health, mental health, and development by conducting comprehensive assessments of children;

b. Improve achievement of medical, emotional, and developmental milestones by children; and

c. Increase access to coordinated obstetric, pediatric, psychosocial support, and drug/alcohol services for clients.

Goal 2: Encourage healthy mother-infant attachment from pregnancy through the first 3 years of life.

Objectives:

a. Improve the attendance rate for prenatal care visits by chemically dependent women;

b. Achieve positive mother-infant interaction;

c. Prevent foster care placement for drug-exposed children; and

d. Increase access to coordinated obstetric, pediatric, psychosocial support, and drug/alcohol services for clients.

Goal 3: Improve the chances for chemically dependent pregnant and postpartum women to develop a clean and sober life.

Objectives:

a. Reduce or eliminate drug/alcohol use by women;

b. Maintain regular participation in drug/alcohol recovery and support groups; and

c. Provide preventive education about substance use in pregnancy.

METHODOLOGY: The CARE program is based upon a continuum of care, case management model. This model provides one-stop, family-centered, comprehensive services for families. The case management model provides health, mental health, and developmental assessments; social service needs evaluations; monitoring and followup; and service referrals and onsite interventions. Specific activities include:

1. Client identification and recruitment;
2. Comprehensive assessments of medical, psychological, developmental, and social needs of drug-exposed infants and their families;
3. Prenatal counseling and referrals;
4. Comprehensive pediatric care (including medical, mental health, and developmental services) and case-managed referrals;
5. Comprehensive drug/alcohol treatment and recovery services and referrals;
6. Parenting education and support groups;
7. A therapeutic nursery program;
8. Community outreach and interagency coordination; and
9. Ancillary services, including drop-in services, hot lunches and snacks, emergency supplies of infant formula and diapers, transportation vouchers, and onsite child care.

EVALUATION: The process evaluation assesses project implementation. A product of the process evaluation will be a manual that delineates the protocol for potential replication of the program. Monitoring by case management tracking forms is the primary activity for this component of the evaluation.

The outcome evaluation assesses whether or not program outcomes meet predetermined objectives. The outcome evaluation uses standard instruments and observations, and investigator-designed questionnaires and case management forms, to measure physical growth and health and nutritional status of infants, mental health and development of infants, client satisfaction with access to services, barriers to accessing services, service agreements in the community, mother-infant attachment, foster care placement, sobriety rate and use rate by mothers, social and behavioral indicators of relapse, and attendance at recovery and support groups.

EXPERIENCE TO DATE: The Center of CARE was begun in 1987 as a primary pediatric clinic for drug-exposed children. The program has now served 200 clients. CARE clients are predominantly African American (84 percent) and live below the Federal poverty level (89 percent). All current clients are chemically dependent and pregnant or have a drug-exposed infant. The average number of children per family is 2.6 and the majority of women (75 percent) live alone with their children. The drug used most during pregnancy is cocaine (69 percent). Over half of the women come from single parent families, experienced child abuse or neglect, and had parents with substance abuse problems. Most continue to live in environments of substance use. More than 70 percent of clients are experiencing serious to severe family stress at entry to the CARE Program at the Center for the Vulnerable Child.

After at least 6 months in the program, outcome data on our clients show that:

1. Infants' height and weight ratios for age have improved;
2. Pediatrician-rated global health status has improved, with 100 percent of babies rated "Excellent" or "Good" after 1 year in the CARE Program;
3. Compliance with appointments has improved;
4. Immunization compliance has improved (to 100 percent of the children); and
5. Scores on the Bayley Scales of Infant Development show that the majority of our infants fall in the normal range at intake and are maintained or improved 6 months later.

The project director and project evaluator have presented Center of CARE data in papers at Center for Substance Abuse Evaluation Workshops on pregnant and postpartum women and their infants (PPWI) in 1992 and 1993. Publications have appeared in the journals *Child Welfare* and *Social Work in Health Care.* The project codirector has presented the project through national public speaking engagements.

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CSAP/MCHB
SP-02258
08/01/90–04/30/95
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PROBLEM: Pregnant and parenting Latina adolescents living in low-income public housing are at high-risk for substance abuse. Comadres is a 5-year program aimed at preventing substance abuse and providing early intervention services for pregnant or parenting Latina adolescents and their extended family members. Children born to these adolescents are at risk for various health problems, developmental delays, and child abuse.

There is a notable lack of research which focuses on Latina adolescents and substance abuse. Most studies have investigated drug use within the adult or male Latino population. The Comadres Project looks at substance abuse as it relates to adolescent Latinas and their families. Among various problems impacting this group is the lack of coordinated and comprehensive services for this population. Further problems include the inaccessibility of health and other social services, loss of cultural values within the family unit, and excessive substance abuse by peers and extended family members. Additionally, these high-risk youth also suffer from low self-esteem, feelings of powerlessness, and culturally related stressors. This program is unique in that it focuses exclusively on the adolescents living in a public housing project in the east Los Angeles community.

GOALS AND OBJECTIVES: The Comadres Project will be housed in the Nueva Maravilla Housing Development Project in the east Los Angeles area. The program has seven dynamic dimensions:

1. The development of a task force coalition focusing on the lack of coordinated services between agencies;
2. A mentoring component where identified Latina women in the community become 'comadres' to adolescents, resulting in increased social support;
3. An 8-week early intervention and prevention program for adolescent Latinas;
4. Development of a referral system through outreach and case management;
5. Reduction of family and personal stress and enhanced coping skills through participation in Comadres groups and activities;
6. Provision of substance abuse information, education, and referrals for extended family members of program participants; and
7. Development of a manual which discusses program development and outreach, the curriculum used in both adolescent and mentor groups, and research findings as a means to facilitate replication of this program in similar communities.

EVALUATION: A process evaluation will include extensive information regarding the implementation of this program. This will include discussions of identified barriers to service implementation and methods for breaking through barriers. The process evaluation includes outreach and recruitment data, curriculum development, and demographic profiles of program participants.

An outcome evaluation will also be conducted through various methods. Adolescent groups will have measurements before and after program implementation in order to evaluate the core sessions in the

curriculum. There will be a followup evaluation for 25 percent of the participants. The outcome evaluation will also look at the effectiveness of the mentor training program by evaluating the training.

EXPERIENCE TO DATE: Progress of the Comadres Project thus far includes:

1. Program outreach;
2. Implementation of a mentor training program;
3. Implementation of an adolescent pilot group;
4. Data collection and initial evaluation tasks; and
5. Initial draft of a curriculum for adolescent and mentor groups.

Community Clinic Prevention, Early Intervention, and Treatment Project for Pregnant and Postpartum Women

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CSAP/MCHB
SP-01923
07/15/91–04/30/95
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PROBLEM: The San Francisco Community Clinic Consortium (SFCCC) serves approximately 8,700 family planning clients and 650 pregnant patients each year. These women are Chinese, Native American, white, black, and Hispanic. Many do not speak English. All are poor. A significant number have substance use problems. No prevention programs targeting these women are available to them in San Francisco. Treatment agencies uniformly report long waiting lists, discouraging women from enrolling.

Many recent studies of provider behavior in primary care settings indicate that health care providers do not routinely address substance use issues during the course of routine visits, even when they suspect their patients are suffering from substance abuse (McLean, Ford). Other studies indicate a need for attitudinal education in the training of health professionals regarding substance abuse (Moodley-Kunnie, Chasnoff). The training of primary health care providers in issues related to substance abuse has been identified as an important goal by the National Institute of Alcohol and Alcohol Abuse and the U.S. Public Health Service.

GOALS AND OBJECTIVES: The goal of this project is to reduce substance use among pregnant and contracepting patients in community clinics through prevention, early intervention, and treatment intervention. The project objectives are to:

1. Conduct interactive training workshops for SFCCC clinicians to build/reinforce skills in conducting substance use assessments during routine family planning, prenatal, and postpartum visits;
2. Administer self-assessment instruments for substance use and minimal counseling to 4,000 women at 6 community clinic sites regarding the health risks of tobacco, alcohol, and other drugs to themselves and their infants as a routine part of family planning and pregnancy-related visits;
3. Recruit/refer 500 women into groups offering social support before, during, and after pregnancy in an effort to improve family dynamics, patient self-image, and birth outcomes among participants;
4. Provide multidisciplinary case management services to 180 pregnant and postpartum women and their infants; and
5. Provide treatment services to 190 women in the second, third, and fourth years of the project. Fifty-five women will receive individual, group, or family psychotherapy for substance abuse issues each year. Fifty women will participate in Alcoholics Anonymous groups, 25 women in Narcotics Anonymous groups, and 100 women in smoking cessation groups each year.

METHODOLOGY: SFCCC, as a consortium of nonprofit, community-based health clinics, represents a coordinated effort on the part of the clinics to address the specific needs of their patients as they relate to tobacco, alcohol, and drug use. To this end, the San Francisco Community Clinic Consortium will provide project leadership through employing a project director, training coordinator, evaluation team, and administrative support person. SFCCC will assume responsibility for program planning, assisting in the recruitment and hiring of project staff, technical assistance, and project monitoring and evaluation.

The clinics will hire and supervise project staff who will be engaged in providing direct services to clients. Medical providers who currently work in the clinics will receive clinical training in substance use assessment with the objective of incorporating this activity into their practices.

EVALUATION: The evaluation design employed for this project consists of both process and outcome indicators. The process indicators include: A monthly reporting system that documents project accomplishments and difficulties; memorandums of understanding/interagency agreements; minutes from monthly meetings of the clinic staff; documentation of staff qualifications (i.e., resumes and staff evaluations); and tracking systems at each clinic site to document the number of program participants, their demographic characteristics, and their attendance at program events/activities. The outcome evaluation will include a chart audit to measure changes in documentation practices within the medical chart as it relates to substance abuse screening and counseling among medical providers. In addition, exit interviews will be conducted with patients to measure client awareness of the assessment and brief counseling intervention being offered by the medical practitioner and the level of satisfaction with the intervention. The evaluation design will also include a self-assessment tool that measures the reduction in substance use, and will be administered to participants before and after the support group intervention. Lastly, a system measure will be included for evaluating the process of integrating a substance abuse program into a primary care system.

CSAP Demonstration Grant for Pregnant and Postpartum Substance-Abusing Women and Infants

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CSAP/MCHB
SP-01493
02/01/90–01/31/94
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PROBLEM: Drug and alcohol addiction in women is a complex problem that incorporates major social and medical concerns. The increase in women who are addicted to drugs and/or alcohol and the subsequent effects on their infants and children represent a heavy human and economic burden for society. The negative consequences of perinatal substance abuse can be modified through early identification and intervention. Comprehensive and coordinated services are needed to meet the more extensive needs of women and their infants and children. New models for treatment need to be developed that are not based on drug and alcohol treatment models for males. These models must address the economic and family issues that are relevant for women in recovery. In addition, these models must attempt to deal with the infants and children who are at increased risk for prematurity, growth retardation, perceptual and behavioral disorders, developmental delays, AIDS, and a variety of other medical and developmental complications. Interventions with infants prenatally exposed to drugs can make a difference in their development, interactions with others, and health status. Pregnant and postpartum women are acutely sensitive to the impact their use has had on their infant/child. Pregnancy, therefore, presents a unique opportunity for intervention.

Given limited resources, current economic concerns, and the often overwhelming needs of substance-abusing women and their children, it is crucial that linkages are formed between treatment programs, social service agencies, medical care providers, and community programs that address the multiple needs of substance-abusing women and children in a comprehensive manner. Models for prevention and treatment need to incorporate early identification, coordination for comprehensive service delivery, and the ability to address not only the needs of women in recovery, but also the health, development, and growth needs of the infants and children.

It is essential that program development include a strong evaluation component that will identify effective practices and interventions.

GOALS AND OBJECTIVES: The goals are to establish a Family Recovery Program that will:

1. Promote the involvement and coordinated participation of multiple organizations in the delivery of comprehensive services for substance-abusing pregnant and postpartum women and their infants;
2. Decrease the incidence and prevalence of drug and alcohol use among pregnant and postpartum substance-abusing women;
3. Reduce the severity of impairments among children born to substance-abusing women; and
4. Evaluate the effectiveness of the model, using a comparison group of substance-abusing women who are being followed in a project on high-risk infants that does not incorporate comprehensive service delivery and treatment.

The program objectives are to:

1. Participate in existing coordinating councils of community agencies, medical service providers, and drug treatment programs to provide for joint case management and coordination of services for pregnant and postpartum substance-abusing women and their infants;
2. Assess community resources and establish a referral network for comprehensive service delivery to pregnant and postpartum substance-abusing women and their infants;

3. Identify 60 substance-abusing pregnant and postpartum women for referral (30 to be assigned to the recovery program and 30 to the comparison group);
4. Establish and maintain a program and service delivery system for 30 pregnant and postpartum women, consisting of long-term followup, in-home visits, individualized therapy, support groups, children's groups, referrals, and coordination with community services to promote recovery from drug and/or alcohol addiction;
5. Develop parent support groups to promote parenting skills and to facilitate parent-child interactions; and
6. Promote the health, growth, and development of 30 infants and siblings whose mothers are participating in the recovery program through in-home visits and the infant/children's groups, and compare their outcomes with 30 infants/children in the comparison group.

METHODOLOGY: The Family Recovery Program uses the collaborative efforts of two community agencies (the California State University at Los Angeles and Options-The Family Center) and incorporates components of their individual programs into a comprehensive family approach to facilitating recovery. The program consists of four components: (1) Initial referrals by community hospitals, (2) intensive treatment and intervention, (3) ongoing participation and maintenance of effort, and (4) monitoring and evaluation.

Referrals are received through a newborn followup program already established at the university and include area hospitals, Department of Children's Services, private physicians, and self-referrals. As a condition of entry into the program, the infant must be available to the mother and able to participate with the mother in the various program activities. The university offers a model for parenting and children's groups and in-home visits. Options-The Family Center provides individual and family counseling, support groups, and other supportive services. Both agencies bring a wealth of community resources and linkages.

The program provides intensive outpatient services. All phases of intervention include regular in-home visits; tracking; individualized and group therapy; parent and children's support groups; 24-hour access; case conferences; coordination with treatment providers, community councils, the justice system, and social services; and referrals to the Special Supplemental Food Program for Women, Infants and Children (WIC), Crippled Children's Services, Medi-Cal, Supplemental Security Income, medical care providers, respite care, child care, and job training. The program has a defined schedule of assessment and evaluation and closely monitors the health, growth, and development of the infants and children in the program. Support groups meet two times per week and staff from both agencies conduct case conferences following each group meeting and on a weekly basis. The program provides transportation to group meetings and social activities for the participants.

EVALUATION: Evaluation efforts consist of both process and outcome evaluation and have incorporated quantitative and qualitative measurements. Assessments are performed quarterly for the women in recovery and their infants. Similar assessments are being performed on women and their infants in a followup program that does not incorporate treatment components, therapy, and groups. Evaluation efforts will address recruitment, retention, parenting skills, recovery, self-esteem and self-help skills, and ability to care appropriately for infants and children. Women in recovery and their children will be compared against substance-abusing women who are receiving a more limited intervention approach. An additional comparison group of high-risk infants for whom substance abuse is not an issue is available.

Qualitative analysis of interviews of women in the program will also be used to highlight principles relevant in intervention. In addition, process evaluation will document program development, analyze the evolution of the model, and describe the development of the program guidelines and curriculum.

EXPERIENCE TO DATE: The Family Recovery Program has been implemented as designed. Modifications of the model have been primarily in areas of accessing additional services for the clients, attempting to incorporate more family members, and trying to address extensive sibling needs. Interagency collaboration has been achieved primarily by intensive coordination and by communication between staff members that takes place several times per week. This coordination effort has led to the development of a

team approach that is truly interagency and interdisciplinary in nature. Issues that needed to be resolved included conflicts between disciplines and philosophy related to women, children, and treatment. Staff are currently developing an overview of that process, the evolving philosophy, and a curriculum for parent and children's groups based on the experiences of the past years.

In developing the evaluation approach, it became clear that no instruments currently available were appropriate for this population. Instruments were developed for assessing the women and children and were field tested repeatedly on a variety of populations. The current assessments and schedule of assessments evolved out of the earlier efforts and are now being statistically analyzed.

The program has received multiple inquiries for both its interdisciplinary focus and its evaluation model. It has provided workshops, educational packets, technical assistance, and evaluation consultation to other programs in California, to hospitals for developing referral systems, and to local providers. The program developed a Community Seminar series, supported jointly by the Perinatal Substance Abuse Council and the County Office of Drug and Alcohol Programs, to allow local agencies to participate in networking and information sharing. The project director has written several articles which are currently being reviewed for publication.

Healthy Start Program
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CSAP/MCHB
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PROBLEM: Increasing numbers of women in the Oakland area are abusing crack cocaine, and the impact is being felt by families and the entire community. Pregnant women who abuse drugs and alcohol are at increased risk for abruptio placentae, premature delivery, and HIV infection. Infants exposed to drugs in utero are at much greater risk for morbidity and mortality. Because drug addiction is a chronic relapsing disease, pregnant substance users should be identified early and referred to a comprehensive range of health and recovery services.

GOALS AND OBJECTIVES: The goals of the Healthy Start Program are to:

1. Improve health outcomes for drug-using pregnant women and their children by early identification and entry into prenatal/pediatric care and recovery services; and
2. Promote successful alcohol and drug recovery and improve the quality of life for participating pregnant and postpartum women and their families.

The project objectives are to:

1. Provide comprehensive case management services to 200 women and their families;
2. Reduce the number of drug-using women delivering at Highland Hospital with late or no prenatal care;
3. Provide an intensive nonresidential drug counseling program for project participants;
4. Increase participants' compliance with well-child pediatric screening and followup medical care; and
5. Provide residential recovery services to 75 program participants.

METHODOLOGY: After an initial intake and substance abuse assessment, all eligible clients are assigned a primary case manager. The case manager serves as a coordinator, advocate, and monitor of services. The case manager conducts a comprehensive assessment of the client's needs and participates in a multidisciplinary case conference to develop an individual service/recovery plan for the client. The case manager then maintains frequent contact with the clients through home visits, clinic contacts, recovery center contacts, and telephone contact.

Recovery services: Healthy Start's recovery program is an intensive nonresidential recovery program which runs 3-1/2 days per week for 6–12 months. Women participating in the program attend daily relapse prevention groups and a variety of classes on parenting, personal growth and development, and drug education. Each participant is assigned a primary substance abuse counselor who will work with the client individually, developing treatment plans and working with other providers on the client's behalf.

Residential services: Clients needing residential services are enrolled at one of two residential programs supported by State drug and alcohol treatment programs. The residential programs house 20–25 women and children for 6–12 months. The residential component provides structured recovery services and therapeutic child care services onsite.

Housing: The Oakland Homeless Families Program has made available to the Healthy Start Program a limited number of Section 8 vouchers to enable clients in recovery to stabilize their housing situation.

High-Risk Infant/Postpartum Clinic: The High-Risk Infant Clinic will follow drug-exposed infants, providing periodic medical appointments according to Highland's protocol for drug-exposed infants. The clinic will be staffed by a neonatologist, a public health nurse, and a clinical psychologist. The public health nurse will serve as case manager and clinic coordinator. The clinical psychologist will conduct developmental assessments on all of the infants and children. A certified nurse-midwife will also provide followup and family planning services to mothers when they bring their infants in for care.

Healthy Start works very closely with other providers in the community through a Perinatal Substance Abuse Coordinating Counsel to develop a network of resources for the client population. Healthy Start is a comprehensive program with acupuncture, vocational services, psychiatric assessments, therapy groups, child care, and organized recreational activities. Our approach is a one-stop shopping model, assessing client's needs and addressing as many of their needs as possible at one site.

EVALUATION: The evaluation for the Healthy Start Program will include both formative and summative outcomes. The project will develop a profile of program users, assess the frequency of participant utilization, and study the types and amounts of services received by different clients. Evaluation will include a quantitative process evaluation based on data collected from participants. The summative outcome evaluation will compare actual program outcomes with desired program outcomes. The summative evaluation will include two components. The first will analyze the direct impact of the comprehensive case management program on program participants and provide intra-study group analyses. The second will aim at identifying a comparison group and making comparisons on as many outcome variables as possible.

EXPERIENCE TO DATE: The Healthy Start Program began at Highland General Hospital in August 1990. The project was fully staffed by February 1991. The Healthy Start staff have worked very closely with the hospital and community agencies to provide orientation regarding program services. The project has served over 300 women during the last 17 months, providing case management, recovery services, referral for recovery services, and a variety of supportive services. The case managers have been trained to perform three client assessments: The Denver II, the Home Observation Measurement of the Environment (HOME), and the Parent Child Observation Guide. Program staff have received a variety of training sessions, including topics such as case management strategies, understanding addiction, dual diagnosis, stress management, and the impact of drugs on pregnancy and the newborn.

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CSAP/MCHB
SP-01500
02/01/90–06/30/94
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PROBLEM: In San Mateo County, there are few specific alcohol and drug services available for pregnant or postpartum women and their infants. Services that are available are fragmented, frequently understaffed, and have long waiting lists. This often leads to duplication of already scarce resources.

The 1990 census recorded the population of San Mateo County as 649,623, with the minority population comprising 39.6 percent of the total. The racial composition is 60.5 percent white, 17.6 percent Hispanic, 16.2 percent Asian, 5.2 percent African American, 0.4 percent Native American, and 0.1 percent other ethnic origin. An estimated 10,600 births occurred in San Mateo County in 1991, according to San Mateo County Department of Vital Statistics. Several "anonymous" urine screening studies performed across the country estimate that the incidence of substance exposure in newborns is approximately 11 percent. A 1990 study performed at Seton Hospital, San Mateo County, confirmed that 11 percent of infants born were substance exposed. Applying this percentage, there were an estimated 1,166 substance-exposed infants born in San Mateo County in 1990.

Cocaine-exposed infants constitute the majority of drug-exposed infants being identified and reported in San Mateo County. Of 85 infants placed in foster care by Children's Protective Services during 1988–89, 94 percent tested positive for cocaine at birth. Heroin, along with cocaine, was found in 9 of the infants.

Case management and coordination of services are the main tasks needed to assist these families and their substance-exposed infants. Several factors contribute to the problem: Denial of a drug problem, lack of multicultural and multilingual staffed services, inadequate outreach, judicial preference for incarcerating drug offenders, and lack of services to address the needs of substance-exposed children.

GOALS AND OBJECTIVES: The project has identified the following goals and related objectives:

Goal 1: Develop an interagency perinatal substance abuse team (IPSAT) for substance-using pregnant and postpartum women and their infants. This team will coordinate and integrate existing county community services under the Prevention and Early Intervention Division, San Mateo County Human Services Agency.

Objectives:

a. Establish and staff an interagency perinatal substance abuse team (IPSAT) under the auspices of the Prevention and Early Intervention Division;

b. Conduct interagency and staff cross-trainings on pregnancy and alcohol/drug abuse issues; and

c. Develop additional resources through the Prevention and Early Intervention Division.

Goal 2: Develop a single-point assessment process that increases the availability of prevention, intervention, and treatment services for pregnant and postpartum women and their infants.

Objectives:

a. Develop a multidisciplinary assessment procedure;

b. Develop an outreach plan that enables IPSAT to assess and refer 225 women;

c. Develop individual treatment agreements with 150 women; and

d. Assess 75 drug-exposed infants and refer 20 of them to appropriate treatment services.

Goal 3: Initiate and evaluate case management services that decrease alcohol and drug abuse among pregnant and postpartum women.

Objectives:

a. Provide public health nursing services to 125 women;

b. Advocate/broker appropriate social service for 125 women;

c. Provide chemical dependency service to 100 women;

d. Provide mental health services to 60 women; and

e. Provide criminal justice counseling and support services to 50 women.

METHODOLOGY: The direct services provided under this grant will be delivered in two related phases. The first phase is a single-entry assessment point for clients. Assessments will be conducted by the five-member IPSAT that will be managed by the senior public health nurse/project coordinator. Assessments will result in a care plan which will determine whether clients will be referred to other appropriate programs. Because all five IPSAT members will be involved in assessments, there will be maximum coordination of the five respective county systems. The intake process will help eliminate the duplication and lack of information that currently characterize most of the assessments completed for these clients.

The second phase is the treatment and case management component. Case management by IPSAT will be provided to those clients who, throughout the assessment process, meet the project definitions of chemically dependent pregnant women at risk for delivering a substance-exposed infant and who voluntarily agree to a treatment plan. Case management will be provided regardless of the site where the women receive alcohol and drug treatment, medical care, or social services interventions.

The skills of the public health nurse will help build the initial trust needed for client participation and motivation. The public health nurse will ensure that prenatal clients receive medical care and prenatal education. Assessment tools for infants at risk will be used by the public health nurse for the infants born to the client families. These tools include home environment, feeding, teaching, motor development, language development, and sleep-wake scales.

As team leader, the senior public health nurse will facilitate team building and take the lead in developing policy and procedures for this program.

The chemical dependency counselor will train the other IPSAT members to work with substance-abusing families. This team member will also assess degree of abuse in client families, develop treatment and aftercare plans for clients, facilitate support groups, and carry an individual caseload.

The mental health worker will assess any mental disorder, develop service plans for clients with primary mental health problems, and also refer clients to existing mental health programs, such as parenting groups. Women's support groups in English and Spanish will be provided, addressing self-esteem, mental health, and parenting issues.

The social worker from Children's Protective Services will be the primary link between the client and various social services. The social worker will be vital to this process. The social worker, by assisting with services such as transportation, child care, food stamps, utility payments, housing, and related services, will help ensure initial and ongoing client participation.

The probation officer will monitor the progress of probation clients who are case managed by the team. The officer will meet with individual clients monthly to assure ongoing compliance with the treatment agreement. There will be more individualized client attention and followup than is possible with a probation caseload of normal size.

EVALUATION: The evaluation component will consist of both process and outcome measures. Initially, the evaluator will meet with the Coalition for Chemically Dependent Women and Their Infants coordinator to review the IPSAT design, discuss it, and reach a consensus on specific evaluation components.

Possible areas of process evaluation include:

1. Review of the number of individuals served;
2. Specific services received by each family member;
3. Evidence of collaboration among the five disciplines represented on the IPSAT;
4. Review of the depth and scope of participation by each of the five agencies; and
5. Review of written policies.

Possible areas of outcome evaluation include:

1. Case matching of IPSAT clients with those seen at the county hospital prenatal clinic (matched by number of infants testing positive for a controlled substance at birth, number of newborns discharged to their homes rather than to foster care, and percentage of women in treatment programs);
2. Month of gestation when case is referred to IPSAT to measure success of outreach;
3. Month in which prenatal care began;
4. Number of women in diversion program to measure success of nonpunitive approach; and
5. Mental health status at beginning of intervention and at completion of case management.

EXPERIENCE TO DATE: Developing a cohesive team composed of staff members from five different agencies has been the most challenging aspect of the project to date. Presently, with 2 years of experience, we have served 386 families. We presently case manage 195 families and 75 infants and children. Our evaluator is an active member in the team process and has been analyzing our team development throughout this period. Data collection and analysis is being computerized and outcome measures will be identified. Now that this program is housed within the Human Services Agency, our initial goals and objectives need to be realigned with county guidelines. Our division has acquired new grant money, and our team will be expanding to include one full-time perinatal addiction specialist and two public health nurses (one full time and one half time).

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CSAP/MCHB
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07/01/90–04/30/95
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PROBLEM: Drug-dependent pregnant and postpartum women and their children are currently overwhelming San Francisco Health and Human Services. The multiple needs of this population are not being met through existing resources. In particular, drug treatment services are inaccessible to pregnant addicted women, especially to women requiring residential treatment. The San Francisco Jelani House is a model residential treatment program which provides comprehensive medical and therapeutic services for pregnant crack-addicted women and their children. Jelani House is a communitywide public/private partnership, coordinating with existing services for referrals and support, to address the problem of crack-addicted pregnant and postpartum women.

GOALS AND OBJECTIVES: The primary goals of the project are to (1) improve the likelihood of healthy birth outcomes among low-income, pregnant, chemically dependent women in San Francisco; (2) decrease these women's dependence on drugs and alcohol; and (3) improve their ability to successfully parent their newborns and their other children.

The project objectives are to:

1. Maintain a comprehensive 24–30 bed residential drug treatment program serving 14 pregnant women, their newborns, and 10–16 of their other children up to the age of 5 years;
2. Screen and refer and/or accept as residents or outpatients 75–100 chemically dependent pregnant or postpartum women into treatment annually;
3. Improve birth outcomes of drug-addicted pregnant women and improve the health and psychosocial development of their infants and children as a result of participation in the Jelani House program;
4. Prevent drug and alcohol use by pregnant and postpartum women involved in the Jelani House program;
5. Increase the quality of parenting skills available to chemically dependent women as a result of participation in Jelani House, and improve their functioning (i.e., life skills) in preparation for reentering and living in the community;
6. Coordinate into one comprehensive program the various social, health, support, recovery, and educational services required of and available to drug-addicted pregnant women, their infants, and their children;
7. Establish and maintain linkages with one hospital for delivery of medical services, including obstetrics, pediatrics, child development, and high-risk clinics; and
8. Document the process of developing and implementing a comprehensive multidisciplinary residential treatment program for chemically dependent women and their children.

METHODOLOGY: The evaluation methodology adopts both a preintervention and postintervention design and a comparison of key outcomes with groups of clients who are either receiving outpatient intervention or no treatment intervention at all. For the preevaluation and postevaluation design, information is collected as each woman and her children enter the program, during treatment and recovery, at exit from the program, and during periodic followup calls or visits (for up to 5 years). An estimated 75–100 pregnant women will be

referred each year to Jelani House. These referrals will come from a variety of sources, including outpatient clinics (e.g., Haight-Ashbury, Facet, Hospital/Public Health Center #3, and Southeast Health Center); detoxification facilities (e.g., Smith House); the Department of Social Services (e.g., Child Protective Services); the Department of Public Health; and other residential programs (e.g., Walden House, Delancey Street, and Glide's). All women who do not qualify for this program are referred to other services in the city. Qualified applicants who are on the waiting list receive outpatient treatment including comprehensive case management.

To reach our program goal, project activities are designed to:

1. Provide a combination of individual and group counseling sessions and 12-step meetings;
2. Provide basic life skills training in preparation for reentering the community;
3. Develop and write treatment plans which include repeated evaluations of the client's progress throughout the program;
4. Provide comprehensive care of the infants and close medical followup; and
5. Reduce complications of pregnancy by offering early prenatal care.

EVALUATION: The evaluation of the Jelani House program is being conducted by the Center for Reproductive Health Policy Research, a part of the Institute for Health Policy Studies, University of California at San Francisco. The institute, established in 1972, has pioneered in policy and services research and evaluation, postdoctoral training, and technical assistance to policymakers at the national, State, and local levels. The program in reproductive health policy was established in 1981, and the program received its center designation in 1983. The center represents a collaborative effort involving the institute and the Department of Obstetrics, Gynecology, and Reproductive Sciences, School of Medicine, University of California, San Francisco, and the School of Public Health, University of California, Berkeley. The center also has close linkages with the Center for the Vulnerable Child at Oakland Children's Hospital.

Living Free Program
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CSAP/MCHB
SP-02954
09/30/90–07/31/95
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PROBLEM: Living Free, a model demonstration project funded by the Center for Substance Abuse Prevention, is a center-based comprehensive and intensive day treatment program. The program was created by the Children's Bureau of the Department of Social Services, with the collaborative assistance of six other agencies, to serve the recovery needs of chemically dependent women, their drug-exposed infants, and their families in Contra Costa County. Living Free is based on a family-centered model which considers each child individually within the context of the family. The safety of the children in the context of their nuclear family is of primary concern in this family-centered approach and complies with legal mandates assuring the safety of minors whenever possible.

In Contra Costa County, few treatment and intervention services have existed for chemically dependent women and their infants who have been drug exposed. Frequently, services have been either nonexistent or fragmented, and/or in some cases barriers have existed which posed difficulties for clients seeking treatment. Living Free has met the current need for intervention and treatment in that it provides a range of services that promote health and well-being at one accessible location. Understanding the roles of all family members and participating agencies has become critical to the resolution of problems presented with substance abuse.

GOALS AND OBJECTIVES: The Living Free Project has four primary goals:

1. Increase the availability and accessibility of intervention and treatment services for drug-exposed infants and their families;
2. Strengthen the mother/infant bond and the family unit in order to enhance the infants' developmental potential and, when possible, to enable children to remain within the home;
3. Integrate and coordinate the various medical, psychological, and community resources into a program that promotes recovery, healing, and growth; and
4. Reduce the severity of impairment among children born to chemically dependent women.

Program objectives are to:

1. Serve 20–30 women, their infants, and families per year;
2. Coordinate interagency services;
3. Develop linkages with Child Protective Services, the juvenile courts, and various community groups;
4. Decrease out-of-home placements by 50 percent;
5. Improve clients' parenting education and life skills;
6. Ensure adequate medical care for chemically dependent mothers and their infants; and
7. Provide recovery treatment and aftercare placement.

METHODOLOGY: The project director is responsible for overall coordination and day-to-day operations and activities of the program. Living Free has evolved through the efforts of community support, in-kind donations, and participating agencies. The program operates Monday through Friday, 8:30 a.m. to 5:00 p.m. Project staff and clients are culturally diverse and representative of the community. The program curriculum

reflects a multidisciplinary approach encompassing the following components: Infant development, "hands on" parenting education and life skills training, mother/infant bonding, drug and alcohol substance abuse treatment, detoxification, residential referral and aftercare placement, medical/nursing services, employment information, training and referral services, and social and ancillary services such as transportation, meal plans, Aid to Families with Dependent Children, MediCal, general assistance, and application assistance for the Special Supplemental Food Program for Women, Infants and Children (WIC). All services occur onsite within a classroom setting.

Clients are referred by Child Protective Services, and infants born with a positive toxicology screen are routinely referred to Child Protective Services. Once the drug-exposed infant has been identified, the social worker from Child Protective Services interviews the mother and simultaneously makes a direct referral to the Living Free Program. Mothers who are enrolled in the project are mandated by the court to participate in treatment and may retain custody of their children as long as they actively participate in the program. The Director of Living Free functions as a liaison between the judicial system and Child Protective Services. Consistent with the project's family-centered approach, biological fathers, siblings, relatives, and extended family members are also eligible to receive limited services.

EVALUATION: The evaluation process is currently under the direction of the Center for Applied Local Research (CAL Research). The evaluation plan has five distinct but interlinked components related to: (1) Development of the program; (2) program description; (3) recruitment, selection, and retention of program participants; (4) client participation in the program; and (5) service delivery outcome, followup, and long-term impact.

The analysis of the outcome data will consist of a statistical description of the outcome in numbers and percentages; trend analyses for assessing changes of the outcome variables over time; and correlations among the measures for examining how the various outcomes of the project relate, as well as identifying factors that lead to positive infant development.

EXPERIENCE TO DATE: Living Free recently celebrated its 1-year anniversary with a celebration theme entitled "One Day At A Time." There were 25 clients and their families in attendance. The highlight of the program was a "Shadow Show" performed by the Living Free staff and clients. The show's message depicted the trauma experienced by mothers following the detention of their children by Child Protective Services.

The daily curriculum for Living Free consists of individual sessions, group participation, and didactic instruction. The adjunct curriculum includes additional outside meetings in 12-step programs such as Narcotics Anonymous, Alcoholics Anonymous, and Cocaine Anonymous. These meetings are mandatory for all clients and focus specifically on issues of concern to substance-abusing women.

As an external support, outside sponsors have been paired with respective Living Free clients who have accomplished a significant amount of sobriety or "clean time." This supportive and individualized sponsorship appears to have increased the length of sobriety for those clients who have successfully stopped using drugs.

Evaluation assessment instruments have been developed and/or identified for use in the project. Reductions in out-of-home placements have occurred as more juvenile court cases are vacated by Child Protective Services and returned to the custody of the biological mother as a result of client participation in the Living Free Program.

Model Projects for Pregnant and Postpartum Women and Infants (Center Point LifeStart Program)

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CSAP/MCHB
SP-03042
03/01/91–02/28/96
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PROBLEM: In late 1989, the Marin County Alcohol and Drug Program completed a study to determine (1) the incidence of drug- and alcohol-exposed pregnant women and infants residing in Marin County, (2) services as well as gaps in services for this population, and (3) recommendations for future services. The study concluded that an estimated 325 drug- and alcohol-exposed births occur annually in Marin County, and that 55 percent of identified drug- and alcohol-exposed women had inadequate or no prenatal care. Recommendations for future services in Marin County included the following: (1) Residential chemical dependency treatment, (2) day treatment services that provide onsite child care, (3) parenting education, and (4) vocational training. The Center Point LifeStart Program seeks to address the needs of low-income pregnant and parenting women and their infants by providing comprehensive residential and day treatment services with onsite child care in coordination with Marin Community Resources and Pregnancy to Parenthood Family Services. Medical assessment and detoxification planning are available through referral.

GOALS AND OBJECTIVES: This program has three primary goals and related objectives:

Goal 1: Promote the involvement and/or coordinated participation of multiple organizations in the delivery of comprehensive services for low-income substance-abusing pregnant and parenting women and their infants.

Objectives:

a. Strengthen referral linkages between LifeStart and agencies serving low-income substance-abusing pregnant and parenting women;

b. Coordinate services to clients in order to eliminate duplication and to bridge service gaps; and

c. Maintain regular contact with the staffs and clients of agencies that serve low-income pregnant and parenting women.

Goal 2: Increase the availability and accessibility of prevention, early intervention, and treatment services for low-income substance-abusing pregnant and parenting women and their infants.

Objective: Conduct outreach to low-income pregnant and parenting women to engage them in prenatal care, drop-in counseling, treatment, or other appropriate interventions.

Goal 3: Decrease the incidence and prevalence of drug and alcohol use among pregnant and parenting women served by the program.

Objectives:

a. Provide a consistent "no alcohol or drug use" message to all pregnant and parenting women and agencies contacted by LifeStart;

b. Link women who do not enter drug treatment to health care, perinatal, and pediatric care for themselves and their children, as well as to other counseling services, human services, and economic support services;

c. Provide drop-in supportive counseling to pregnant and parenting women seeking treatment and other services;

d. Provide day and residential drug treatment to women and their infants; and

e. Develop transition and aftercare services for women completing treatment to ensure that they have employment and are involved in 12-step meetings, peer and other support activities, and outpatient counseling services.

Women in the Center Point LifeStart Program will receive drug treatment services along with parenting education and support. Treatment and education will aid in the healing process of the mother-infant dyad for postpartum women and will aid in the delivery of infants with fewer risk factors to women who enter the program early in their pregnancies.

METHODOLOGY: The Center Point LifeStart Program is a coordinated substance abuse project designed to identify and serve low-income pregnant and postpartum women and their infants in Marin County. Center Point works in cooperation with Marin Community Resources to provide outreach and education to service providers and clients in the county and works with Pregnancy to Parenthood Family Services to provide onsite education about pregnancy and child development. Infant and child development testing will also be provided by Pregnancy to Parenthood. Center Point has 22 years of experience providing drug treatment and will be providing residential and day treatment for women and their infants. Pregnant women entering the program will be linked immediately to Marin Maternity Services for prenatal care, and parenting women will be linked with Marin Community Clinic for health and pediatric care.

Women in day and residential drug treatment will participate in more than 20 hours of weekly counseling, consisting of (1) individual and group substance abuse counseling; (2) personal issues counseling on issues such as physical and sexual abuse, rape/incest, identity and self-esteem issues, health education, and nutrition; and (3) practical life skills counseling and training. A certified family therapist provides individual and family therapy twice weekly. Clients will identify personal issues through written assignments ranging from autobiographies and family histories to awareness of trust, honesty, and integrity and the role these concepts play in determining the client's behavior. Participants will also receive more than 5 hours of weekly parenting/child development education designed specifically for parents of drug-exposed infants, including clinical observation of mother-child interaction and periodic assessment of infant development.

The Center Point Program is unique in Marin County because it is the only project that works with postpartum mothers and their infants at both the residential and day treatment levels. It is also unique in that it is the only project coordinated with community agencies in Marin County that offers a breadth of services at a centralized location.

The Center Point program is divided into three distinct phases while mothers are in treatment with their children. Each phase is approximately 3–4 months long. The phases consist of:

1. Intensive treatment phase. Mothers participate in group work and individual counseling sessions. There is an emphasis on clients learning specific concepts that are integral to leading a productive, sober lifestyle. These concepts include areas of trust, empathy, honesty, integrity, support, and open channel, which clients are asked to incorporate in their daily living. Clients who have not graduated from high school must study for and receive their G.E.D. in the intensive phase of treatment. The intensive phase is also a time for clients to master appropriate parenting skills, and to train in specific interventions provided by the child development specialist for their drug-exposed children.
2. Reentry treatment phase. Clients work directly with a vocational counselor to find full-time employment. The vocational counselor aids mothers in (a) identifying job skills and interests, (b) developing a resume, (c) increasing interviewing skills, (d) developing job leads, and (e) establishing links to job training centers or higher education. The reentry phase is also a time in which mothers are required to find full-time, subsidized child care that will complement their work schedule. During reentry, clients can explore further support in the community through 12-step meetings, parent support groups, and related groups. Any court issues pending or community service required should be resolved by the mother before completing the reentry phase.
3. Transitional phase. Once a mother has settled in her job and has found child care, she is ready for the transitional or third phase of treatment. The transitional phase addresses the full integration of the client into the community; it is a time for the client to find clean and sober housing for herself and her child. It is also a time when further reunification plans for a mother's other children can be fully addressed and implemented. Before a mother may graduate, she must develop a full aftercare plan with her counselor, covering a 6-month period following graduation. Aftercare counseling includes group

sessions and individual counseling when appropriate. The transition phase is also a time for each mother to begin "giving back" 4 hours of volunteer service to the Center Point Community.

The Center Point LifeStart Program is unique in Marin County—it is the only project that works with postpartum mothers and their infants at both the residential and day treatment levels. It is also unique in that it is the only coordinated project with community agencies in Marin that offers a breadth of services at a centralized location.

EVALUATION: The Center Point LifeStart Program is being evaluated independently through CAL Research and will involve qualitative data collection through agency staff interviews, document reviews, client interviews and client tracking, and referral monitoring. Child development assessment is provided by Pregnancy to Parenthood Family Services using the Bayley Scales of Infant Development and Brazelton's Neonatal Behavioral Assessment Scale. A quasi-experimental pretest/posttest evaluation design will be employed. Clients in residential treatment will serve as one experimental group, and clients in day treatment and drop-in counseling will serve as comparative experimental groups. Clients are tested at entry into treatment, after 90 days, and at graduation. Tests employed are the Substance Abuse Checklist, the Symptoms Checklist (SCL-90-R), the California Personality Inventory, the Tennessee Self-Concept Test, and the Millon Clinical Multiaxial Inventory II. Additional tests at the pretest phase include the Addiction Severity Index and the Shipley Institute for Living Scale.

Quantitative data collection on mothers will focus on five principal outcome measures: (1) Retention rates (calculated from admission and discharge dates), (2) discharge status, (3) length of abstinence after entry into the LifeStart Program, (4) social adjustment/quality of life and health symptoms as measured by the pretest and posttests listed above, and (5) parent-child bonding. Measures on children include developmental sequence scores (measured by scores on the Bayley and Brazelton assessments), as well as toxicology screen results, Apgar scores, gestational age, and birthweight for infants of mothers who deliver after entering the LifeStart Program.

EXPERIENCE TO DATE: The project has been fully staffed and has been providing services since August 1991. Because the residential treatment site contains only 10 beds (5 for mothers and 5 for infants), the waiting list for mothers seeking residential treatment is triple the residential treatment capacity. To meet this need, Center Point has been able to provide some transitional housing for mothers and children when mothers reach the third phase of treatment, thereby increasing available space by four beds. When possible, others who wish to enter day treatment while still waiting for a residential bed may do so or may enter drop-in services. Marin Community Resources has contacted every service provider in the community via letter and brochure and has completed its second phase of contacts with face-to-face meetings and service provider staff education to more than 50 identified agencies. Steering committee meetings are held monthly with the heads of the coordinating agencies to track progress in terms of outreach, treatment, and parent education components and to troubleshoot areas where there may be gaps in service. A battery of tests for mothers has been identified and implemented at entry into treatment, at 90 days, and at graduation.

To date, the Center Point LifeStart Program has graduated four mothers who are holding full-time jobs and have obtained full-time subsidized child care. All four continue to participate in aftercare counseling and are living clean, sober, and productive lifestyles. Residential treatment appears to be the preferred modality for clients inquiring about treatment, and the waiting list for residential treatment continues to be substantial for Marin County clients as well as for clients from all surrounding counties.

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CSAP/MCHB
SP-01904
07/15/90–06/30/95
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PROBLEM: The Moms and Kids Recovery Center (M&KRC) addresses perinatal substance abuse in Ventura County by working with pregnant and postpartum women involved with alcohol and other drugs, and by working with their infants and children through 5 years of age. Women who abuse alcohol and other drugs, especially when pregnant, are at greater risk for medical problems. They also place their unborn and young children at greater risk for medical and psychological problems.

In Ventura, approximately 16 percent of all infants born in 1989 were exposed to alcohol and other drugs. Until the opening of the Mom and Kids Recovery Center, there was no comprehensive treatment program for these women and their young children.

GOALS AND OBJECTIVES: The principal goals of the project are to:

1. Promote the involvement and coordinated participation of multiple organizations in the delivery of comprehensive services for substance-using pregnant and postpartum women and their children;
2. Increase the availability and accessibility of prevention, early intervention, and treatment services for the target population;
3. Decrease the incidence and prevalence of drug and alcohol use among pregnant and postpartum women in Ventura County;
4. Improve birth outcomes of women who used alcohol and other drugs during pregnancy, and decrease the incidence of infants affected by maternal substance use; and
5. Reduce the impairment of children exposed to parental substance abuse.

The project objectives are to:

1. Establish working, cooperative relationships with at least five other agencies and groups in Ventura County;
2. Provide alcohol and other drug abuse treatment and routine perinatal health care to 50 pregnant and postpartum women and their infants annually;
3. Provide instruction to mothers in the basic care of infants and children;
4. Observe an 80 percent improvement in clients' affect;
5. Observe an 80 percent decrease in the use of alcohol and other drugs among clients enrolled in the program;
6. Make available a safe, supportive, and secure residence for mothers motivated to stop abusing alcohol and other drugs;
7. Observe significant reductions in the incidence of poor birth outcomes among M&KRC women, especially compared with the incidence among women who are not M&KRC clients but are delivering infants with positive toxicology screens. These reductions include a 20 percent reduction in preterm births, a 20 percent reduction in low birthweight births, an 80 percent reduction in positive toxicology screens for infants born to M&KRC clients, and a 20 percent reduction in postnatal toxicology screens for M&KRC mothers;

8. Ensure that every child in the program who needs help with impairment receives that help, either through the program or by referral; and
9. Promote and support development of positive parent-child relationships through specifically designed program activities.

METHODOLOGY: Mental health and substance abuse treatment will rely on individual and group therapy modalities pertaining to issues of recovery and individual psychodynamics. A clinical social worker and an alcohol and drug treatment specialist will conduct these therapy sessions. Trained child care workers will supervise activities in the child care center adjacent to the program offices. Child care workers will also provide transportation for program participants whose involvement in treatment can be supported in this way. A public health nurse will perform basic health assessments on the children (up to 3 years of age). The public health nurse will also perform well-child and infant development assessments and will conduct parenting education. A nurse practitioner will perform basic health assessments for the adults. The coordinating staff team will make referrals for further health care and other special needs as necessary.

EVALUATION: Data collected over the first 2 project years are being collated and summarized. The following are the initial findings of entry characteristics: 22 percent of the women were pregnant; 60 percent were postpartum; their mean age was 28 years; 20 percent were homeless or in transitional housing; 44 percent of the children treated were under 1 year of age; 26 percent were between 1 and 3 years of age; 22 percent of the women had children out of their custody; 22 percent of the women were mandated to treatment; 64 percent of the women were non-Caucasian (48 percent Hispanic nonwhite and 14 percent African American); the principal drugs of choice were alcohol and cocaine.

Three treatment groups have been identified in terms of length of treatment: 1–5 weeks (39 percent); 5–12 weeks (31 percent); and more than 12 weeks (30 percent).

The program has developed its own intake and psychosocial instrument, adapted in large part from the Addiction Severity Index. Other instruments being used include the Nursing Child Assessment Satellite Training (NCAST), the Basic Personality Inventory (BPI), the Developmental Profile II (DP II), and the Profile of Mood States (POMS).

EXPERIENCE TO DATE: As of January 1, 1993, this project is in the middle of its third year. There were some significant changes in the second year, but all positions were filled again by the end of the second year (June 1992). Attendance and participation remain strong overall, with a decline experienced during the 1992 holiday/flu season.

Between January 1991 and December 1992, 71 women entered the treatment program and 78 of their children were provided child care and assessment services.

A "sober living" home, which is a component of the program, is now open and serving clients who need a sober living environment.

All staff have participated in increased training opportunities, especially in the area of cross-cultural competency.

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CSAP/MCHB
SP-02431
07/15/90–04/30/95
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PROBLEM: Although it seems logical to target programs for use within specific populations, there are few well-documented qualitative reports of the service components that contribute to successful treatment. This program evaluation will compare two residential treatment facilities for pregnant and postpartum women and their infants, differing specifically in the theoretical models for services. MIA House focuses on African-American women and their infants. It is hoped that this evaluative process can contribute significantly to the literature on this topic by delineating factors that lead to treatment outcome.

The concept of women becoming addicted to dangerous substances is one that many people in the country find distasteful or hard to believe. As a result of this kind of socialization process, many women developed addictions in a social environment that did not acknowledge or understand them. Women do abuse drugs; they do have addictions. The availability of inexpensive drugs such as crack created an avenue of drug access for women.

This project's target population is comprised of African-American women who are pregnant and addicted to drugs. The program is designed to intervene early in a woman's pregnancy in order to reduce fetal drug exposure and to allow women time to absorb information on recovery and parenting. Within the supportive African-American cultural treatment environment, women will stay with their infants up to 18 months to establish good bonding skills and to make a smooth transition into the community.

GOALS AND OBJECTIVES: The project has established the following five goals:

Goal 1: Promote the involvement and coordinated participation of multiple organizations;

Goal 2: Increase the availability and accessibility of prevention, early intervention, and treatment service for pregnant and postpartum women and their infants;

Goal 3: Decrease the incidence and prevalence of alcohol and other drug use among pregnant and postpartum women;

Goal 4: Improve the birth outcomes of women who used alcohol and other drugs during pregnancy, and decrease the incidence of infants affected by maternal substance use; and

Goal 5: Reduce the severity of impairment among children born to substance-using mothers.

METHODOLOGY: The main geographic target is the City and County of San Francisco. The new primary focus of our program is substance-addicted African-American women who are pregnant or postpartum (no more than 6 weeks or 42 days). Statistics on drug addiction in women have shown that, as a group, the target population has a poor history of receiving prenatal care. Our goal is to provide culturally specific treatment to this population in a variety of ways. The new design is structured to build self-esteem and self-worth by providing positive programmatic activities and materials. Both the staff and the evaluation team are representative of the African-American culture. The composition of the evaluation team has been modified to reflect the target population.

The staff of MIA House provide clients with culturally specific treatment through the following program activities:

1. Parenting classes that discuss what it means to be a black female and dispel myths about black families;
2. Mother and daughter groups, which will also incorporate aunts, grandmothers, and other older female relatives;
3. Family support groups open to family members of program participants, including parents of infants;
4. Foster grandparent support (two African-American volunteer grandparents who assist with the care of the women and infants 4 hours daily, and serve as role models); and
5. Introduction to spirituality, in which the spiritual beliefs and mores of diversified cultures are introduced.

EVALUATION: As a result of the increased number of women who required residential recovery services, the Women's Alcoholism Center began plans for MIA House, a facility where pregnant women or mothers of newborns could live and recover in a supportive program adapted to meet their needs both as women and as persons of color.

Women's Alcoholism Center's Aviva and MIA programs will be evaluated during this project. They will each house six women and their six children and will provide the same variety of program components, but they will differ in their treatment models. Aviva House provides a peer support model; MIA House provides a clinical model of treatment and culturally specific services. The evaluation of the Women's Alcoholism Center programs is designed with detailed knowledge of the factors that contribute to female addiction and the risk factors created by those addictions. Selected assessment measures have been chosen to provide information about the variety of environmental, personal, and community factors that can lead to and exacerbate addictions among women.

The following are some of the measurement tools that will be used:

1. Child measures: Achenback Child Behavior Checklist, Affected Interaction Rating Scales, Developmental Profile II, Mullen Scales of Early Learning (MSEL), Rothbart Infant Temperament Questionnaire, Perez Early Neurobehavioral Screen (PENS), and Vineland Adaptive Behavior Scales.
2. Maternal measures: Center for Epidemiological Studies of Depression Scale (CES-D); Crnic and Greenberg's Social Support Scale, Cultural Competence Assessment, Culture Free Self-Esteem Inventories, Dutweiller Internal Control Scale, Emotional Trauma Questionnaire, Family Environment Scale, Needs Assessment, Parenting Stress Inventory, and Test of Non-Verbal Intelligence.
3. Staff measures: Staff Demographic and Background Survey, and St. ^ Cultural Competency Intervie w.

EXPERIENCE TO DATE: After surviving many roadblocks, MIA House, the newest perinatal residential program of the Women's Alcoholism Center, has become a reality. Liaisons were established with many community agencies including local police, neighbors, the county hospital, and the health center. Our residents receive primary health care from a neighborhood health clinic that provides prenatal and postpartum care. An African-American woman physician and a team of public health nurses provide a continuum of care. The new attitude of acceptance by our neighbors is remarkable, since they opposed the program before it opened. Members of the Holyoke Advisory Committee, which convenes monthly, have taken ownership of MIA House, and offered suggestions. While they continue to voice concerns about parking and recycling, they are amazed at just how unobtrusive MIA House and its staff and residents are within the neighborhood.

In addition to staff, we have two foster grandmothers who were placed with us by the Family Service Agency of San Francisco. They work 4 hours a day and are "a gift from God."

Four women and two infants gratefully celebrated the holiday season in a beautiful new home, and we were able to solicit donations from various community organizations for these women and the babies.

Another significant accomplishment is the evaluation team we have assembled, with Dr. Lora-Ellen McKinney and doctoral candidate Lanette Brown as coprincipal investigators.

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SP-02387
07/15/90–04/30/95
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PROBLEM: Currently in San Francisco, between 35 and 50 cocaine-exposed babies are delivered each month. Approximately half of the stimulant-abusing women who are pregnant and living in San Francisco County receive no prenatal care. The statistics on birth outcomes for drug-addicted women are quite poor, reflecting inadequate prenatal care, little if any drug detoxification or treatment, and generally inadequate preparation for parenthood. A recent San Francisco General Hospital survey revealed that 51 percent of cocaine-abusing pregnant women receive no prenatal care whatsoever. Forty-two percent of cocaine-affected births are premature, compared with 10 percent of noncocaine-affected births. Thirty-seven percent of cocaine-affected births are small for gestational age, compared with 6 percent of births not associated with cocaine. The estimated cost of intensive neonatal care for one cocaine-exposed neonate is between $60,000 and $100,000. There has been a concomitant increase of 30 percent in the number of infants requiring foster home placement.

We believe that, by equipping the addict with self-help principles, we can empower her to recognize her own responsibility for engaging in the process of rec very and, consequently, improve her ability to use available services. Services do exist; however, it takes a talented and well-organized person to access all of them. To promote recovery from addiction to the stimulant drugs, cocaine and methamphetamine, the project offers immediate access to a unified health and social services program for pregnant/parenting addicts. Services are provided through the community-based Moving Addicted Mothers Ahead (MAMA) Consortium. The literature indicates that outpatient treatment is successful for 30–90 percent of all cocaine addicts. All participating women, largely from minority communities in San Francisco with high rates of preterm birth and widespread crack cocaine addiction, will receive the coordinated services program and intensive recovery-oriented drug treatment using daily counseling, case management, and small support groups.

GOALS AND OBJECTIVES: This project has three primary goals:

1. Provide services to pregnant addicts enrolled in this project, using a consortium of community-based programs for drug treatment, obstetric/pediatric care, parent education/counseling, and social welfare assistance;
2. Engage pregnant addicts in recovery-oriented activities and a social support for sobriety, using a variety of formats, including small groups, drop-ins, individual sessions, and home visits; and
3. Determine the effectiveness of MAMA Consortium services by monitoring maternal drug use patterns, pregnancy outcomes, and neonatal outcomes.

The project objectives are to:

1. Provide immediate access (within 24 hours) to services;
2. Educate the pregnant/parenting addict about addiction, drug use, and drug abuse, as well as alternatives for coping with life stressors;
3. Provide the pregnant/parenting addict with drug detoxification and drug treatment, and offer support to family members through group therapy and appropriate referrals;
4. Provide the pregnant/parenting addict with enhanced prenatal care services;

5. Assist the pregnant/parenting addict in learning recovery and self-care skills, and parenting skills that foster bonding of the maternal-infant dyad; and
6. Provide optimal pediatric care for children at high risk for child abuse and offer support for older siblings in these families by giving them referral information.

METHODOLOGY: The MAMA Consortium renders special services to substance-abusing women. The target population includes women who are on crack, cocaine, or other stimulants, and who are pregnant or postpartum with an infant under 1 year of age. Services include: Case management, drop-in for clients and their significant male partners, coordination of detoxification treatment through the Haight Ashbury Free Clinic detoxification clinic, individual and group treatment, grandparents and parents groups, onsite parenting classes, and onsite child care during attendance at onsite groups and classes.

EVALUATION: Steps have been initiated to firmly establish the evaluation component of our program, which will be performed by Evaluation Management Training Associates, Inc. (EMT). The information/evaluation component will be conducted during various stages of program implementation and will include data collection instruments, forms, service participation logs, referral logs, and pretests and posttests for parenting classes. EMT staff will provide technical assistance for implementation of the data system to include onsite training for MAMA Consortium and core agency staff. This training will include: Administration of data collection instruments and forms, management of data systems, and data quality control. EMT staff will also conduct spot checks on completeness and accuracy of data being collected through this system. A developmental pediatrician will conduct assessments of high-risk infants, which will be used to determine pregnancy outcome as well as to generate information on longitudinal development of children who were drug exposed.

The project focus is to develop research questions which highlight the difference in treatment needs between the target population of pregnant and parenting addicted women and other substance-abusing populations. Our evaluation methodology will assist us in examining the research questions and generating some interesting implications for treatment.

EXPERIENCE TO DATE: The project is fully staffed, including a program director, a case manager, two substance abuse counselors, an outstationed substance abuse counselor at the Family Center (a program of the Department of Social Services), a principal investigator, and an office manager. We hope to expand services to include vocational and educational rehabilitation for women in recovery.

The MAMA program has developed detoxification protocols for pregnant women in collaboration with obstetricians and has established a working relationship with San Francisco General Hospital in order to provide women with inpatient detoxification and fetal monitoring if needed.

The MAMA program and staff continue to be actively involved in the perinatal substance abuse community, networking with the following organizations: Hamilton Family Shelter for homeless parents, the San Francisco Perinatal Substance Abuse Coordinating Council, the Perinatal Forum, the Early Parenting Project of San Francisco General Hospital, the Emergency Response Unit of the Department of Social Services, the Epiphany Center, Save Our Sisters project, the Florence Crittenton Reunification Program, the court system, Narcotics Anonymous groups, Grandparents Who Care, Edgewood Children's Center, Women's Needs Center, the Perinatal HIV Reduction and Education Demonstration Activity (PHREDA) project, and the IRIS project.

Multi-FACET: Comprehensive Perinatal Services

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CSAP/MCHB
SP-01671
07/01/90–06/30/95
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PROBLEM: Pregnant and postpartum substance-abusing women who have low incomes and/or belong to minority groups have relatively little access to health care, social services, or educational services needed for recovery. These factors, combined with the consequences of polysubstance use/addiction and personality characteristics frequently associated with addiction, make it imperative to provide comprehensive case management to meet the needs of women in a perinatal substance abuse treatment program.

The treatment of perinatal substance abuse requires a focus on the infant-mother dyad along with the individual needs of the mothers and babies. Identification of possible developmental and/or psychological sequelae in infants exposed prenatally to drugs requires ongoing assessment and intervention.

GOALS AND OBJECTIVES: This project has three primary goals:

1. Decrease the incidence and prevalence of drug and alcohol use among pregnant and postpartum women;
2. Improve the birth outcomes of women who used alcohol and other drugs during pregnancy and decrease the incidence of infants affected by maternal substance use; and
3. Reduce the severity of impairment among children born to substance-using women.

The project has established the following objectives:

1. Enroll 50 percent of contacted women in Phase I (early intervention) and 50 percent in Phase II (more intensive treatment) by implementing extensive outreach and case management;
2. Demonstrate an abstinence rate of 30 percent for clients enrolled in Phase II by implementing a comprehensive substance abuse treatment and case management program;
3. After establishing baseline data, improve birth outcomes by 10 percent for a maximum of one-half the total number of infants born to women in Phase II, by providing intense substance abuse treatment and referral sources; and
4. Provide child development and case management to maintain 75 percent of index children within the normal range of growth and development, and improve the growth and development for 50 percent of children who are below normal growth and development.

METHODOLOGY: Two sites in high drug use areas of San Francisco were chosen to facilitate easy client access to the Multi-FACET case management treatment program and to provide for culturally sensitive programming. The Multi-FACET program is based on extensive outreach which is paced to the client's individual needs.

Clients enter the program in gradual phases: Initial contact; phase 1 (gradually increasing commitment and participation); phase 2 (consistent commitment and participation in the program). In phase 2, counselor and client develop an individual treatment program. These programs include individual counseling; case management of health care needs, with an emphasis on prenatal and pediatric care; social and educational services for the women and children; acupuncture; and groups such as prenatal education, parenting, relapse prevention, HIV education, 12-step Alcoholics Anonymous/Narcotics Anonymous programs, and women's

self-esteem. The early intervention component is a unique aspect of the Multi-FACET program. This includes assessment of all index children, along with therapeutic child care, and individual developmental and parenting sessions and referrals for identified concerns (if needed).

EVALUATION: Evaluation data will be used to assess progress in meeting stated goals and objectives as well as to provide feedback to the project director and staff for use in planning future project activities. Data will be collected (1) during the pretreatment phase, (2) at intake, (3) during treatment and recovery, (4) at completion of the program, and (5) at periodic followup contacts. For outcome measures, this evaluation adopts a pretest and posttest intervention design with comparison groups for key outcomes. Sources of comparative data include: Within-group comparisons (i.e., comparisons with women who do not move from the pretreatment to the treatment phase); birth outcomes of drug-exposed infants from the county hospital; data on well-child visits and immunization status from an Alameda County study of infants exposed to drugs in utero; and current literature on outcomes (for which we cannot locate an original comparison group).

Process data will include client demographics, therapeutic services made available to clients, client participation in available services (e.g., prenatal class, parenting education class, child care, support groups, one-to-one counseling, acupuncture), referrals made for clients, and other support services provided.

Outcome measures include enrollment rates at the pretreatment and treatment phases; psychosocial status (measured by the Beck Depression Inventory and Curry's Prenatal Psychosocial Profile which combines a shortened version of Brown's Support Behaviors Inventory, Rosenberg's Self-Esteem Scale, and a stress inventory); drug use, measured by self report and urinalysis; living situation (i.e., safety, stability, supportiveness); number of prenatal care visits; birth outcomes; results of child development assessments (Mullen Scales of Early Learning); periodicity of well-child visits and immunizations obtained; height and weight percentiles of children; Comprehensive Perinatal Services (CPS) involvement; and custody and living arrangements of the children.

EXPERIENCE TO DATE: In 1992, efforts have been directed toward establishing a treatment site in a predominantly African-American community known to have a high incidence of crack cocaine and polysubstance use. All funded staff positions have been filled and ongoing staff orientation and training are in process, with an emphasis on culturally specific issues. Programs targeting the African-American community are being implemented. Extensive client outreach and community liaison efforts are an ongoing component of the program.

The evaluation instruments have been identified and the tracking forms are being developed. These include the Beck Depression Inventory, Curry's Parental Psychosocial Profile, the Bayley Scales of Infant Development, and the Mullen Scales of Early Learning.

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CSAP/MCHB
SP-02957
09/30/90–08/31/95
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PROBLEM: This demonstration project was developed by a rural four-county consortium (Butte, Shasta, Siskiyou, and Tehama) in response to the increasing incidence of infants born exposed to drugs, primarily methamphetamines. Maternity clinics serving low-income women report a 25 percent positive drug screening rate, while the State average for infants born drug exposed is 11 percent. The rural nature of the area and lack of services present special barriers to the identification and treatment of substance-abusing families.

GOALS AND OBJECTIVES: This project will impact at least 500 pregnant and postpartum drug and alcohol users and their infants over the 5-year grant period. The following goals and objectives will be implemented:

Goal 1: Identify 100 substance-using pregnant and postpartum women per year who want to have positive pregnancy outcomes, maintain custody of their newborns, and assist their infants in reaching normal developmental milestones through a referral system comprised of specially trained physicians, clinic staff, hospital staff, and county agencies.

Objectives:

a. By September 30, 1993, and throughout the project period, medical providers will identify and refer at least 20 substance-using pregnant women per year; and

b. Throughout the project period, project staff will monitor referrals to determine utilization of the referral linkages. The primary referral sources, including Public Health Service, Child Protective Services, and Alcohol and Drug Services, will result in at least 70 referrals per year.

Goal 2: Coordinate the delivery of community-based services for up to 100 drug-using and recovering pregnant and postpartum women and their infants per year through a case management system.

Objectives:

a. Throughout the project period, participating agencies will refine interagency team case conferencing procedures and conduct monthly case conferencing meetings; and

b. Throughout the project period, each client will be linked by the case manager to services from a minimum of two community agencies appropriate to the unique needs of that client.

Goal 3: Assist at least 40 pregnant or postpartum substance-abusing women per year to get appropriate residential treatment to meet their unique needs.

Objectives:

a. Throughout the project period, at least 15 infants/toddlers per year will be allowed to remain with their mothers at the regional residential facility, thus enhancing the mother-infant relationship; and

b. The project will provide a discharge plan for 100 percent of the residential clients who complete treatment. This discharge plan will link the client to the case manager in her home county.

Goal 4: Assist all project clients in obtaining appropriate comprehensive day treatment and outpatient services to maintain their recovery.

Objectives:

a. Beginning in February 1992, and throughout the project period, case managers will link clients to a comprehensive day treatment program in their home county; and

b. Beginning January 1, 1992, the project will develop and implement a 6-month followup period for women who have successfully completed the program.

Goal 5: Provide a drug-free living environment for at least 25 recovering women and their children.

Objectives:

a. By August 1, 1995, at least two new sober living sites will be developed; and

b. Throughout the project period, staff will assist clients in obtaining housing which is recovery-conducive.

METHODOLOGY: Far Northern Regional Center, an agency with a multicounty focus, provides the administration and coordination for the Northern California Drug-Free Perinatal Project. All direct services are subcontracted to local service agencies within the four target counties. This unique model is comprised of regional administration and coordination, partnered with community-based direct services. The project also provides for a strong linkage between a regional residential treatment facility and local case management agencies, so that, as women return to their home communities after treatment, a service system is in place to provide aftercare and recovery services. The direct service components are:

1. Tehama Recovery Center, a residential treatment facility providing a 30- to 90-day perinatal treatment program where mothers may bring their infants (discharge planning and parent education components are supported by this project);
2. Parent Education Network, which provides case management and in-home parenting to the perinatal population in Butte and Tehama Counties;
3. Enloe Hospital, which provides case management and a day treatment center for the target population in Butte County;
4. Shasta County Substance Abuse Services, which provides case management and a day treatment program in Shasta County;
5. Tehama County Health Department, which provides case management services in Tehama County;
6. Siskiyou Child Care Council, which provides case management and parent education services in Siskiyou County; and
7. Karuk Tribal Health Program, which provides case management services, primarily to Native American women in Siskiyou County.

EVALUATION: The project is contracting with an outside evaluation firm, EMT of Sacramento, to conduct the evaluation. Annual case histories developed through field research and quantitative data collection will form the basis of the process analysis that will determine programmatic adjustments in years 2–5. Outcome evaluation will depend upon a multimethod evaluation design that analyzes issues of maternal drug use, improved birth outcomes, improved life skills, infant health status, and improved parenting. Results will be compared across groups of participants receiving different services (e.g., those who participate in residential programs compared to those who do not).

Patterns
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CSAP/MCHB
SP-01947
07/01/90–04/30/95
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PROBLEM: Pregnant women who use alcohol and other drugs typically seek prenatal care late in pregnancy, if at all. There are many obstacles that keep substance-using pregnant women away from both prenatal clinics and alcohol and other drug abuse recovery programs. First, denial, which is common in chemically dependent individuals, creates a situation in which users fail to recognize the seriousness of their chemical dependency. Second, the compulsion to use drugs is very strong and a habitual user will continue to use drugs in spite of the negative consequences associated with the behavior. Third, many users fear reprisals such as legal interventions and loss of child custody if they do seek treatment and care. Women who have had previous pregnancies may have had negative experiences with "helping professionals" and do not see them as advocates. This is particularly true for minority women in Monterey County, many of whom are undocumented farmworkers of Mexican descent who do not seek assistance for fear of problems with immigration. Fourth, a woman's own feelings of guilt and regret about her drug use become a significant barrier. Often these feelings are overwhelming and lead to depression during pregnancy and, after the birth of the child, may contribute to poor bonding with the infant, inability or unwillingness to care for the infant, abandonment, neglect, or abuse .

GOALS AND OBJECTIVES: The project's two primary goals are to (1) promote the involvement and coordinated participation of multiple organizations in the delivery of comprehensive services for pregnant and postpartum women and their infants; and (2) improve the birth outcome of women who use alcohol and other drugs during pregnancy and decrease the number of infants affected by maternal alcohol and other drug use.

Objectives:

1. Monterey County Health Department, Alcohol and Drug Programs Division, will establish and maintain by June 1991 an intensive early intervention day treatment/case management program for substance-using pregnant and postpartum women, and coordinate the services of multiple agencies over a 5-year period ending June 1995.
2. Clients of the project will receive required referrals and transportation to providers who serve pregnant and postpartum women and their infants, and to support agencies within Monterey County.
3. The project will promote the involvement of multiple organizations in initiating and continuing a referral system by providing 50 hours of outreach and inservice education by June 1993 to a minimum of 150 professionals within Monterey County who serve pregnant and postpartum women and their infants.
4. Patterns will provide intensive early intervention day treatment/case management services to 50 women by June 30, 1993. The program will serve 120 clients by June 30, 1995.
5. Project activities will facilitate a decrease in alcohol and drug use during pregnancy.
6. The project will determine that infants born to women receiving early intervention services, compared to late or no intervention, will have better birth outcomes.

METHODOLOGY: The Patterns project will provide comprehensive and coordinated early intervention day treatment/case management for pregnant women who are using alcohol and other drugs. The program will

fill current gaps in services, and provide the link between pregnant women and available services in the community. Furthermore, alcohol and drug recovery services will be an essential element of the program. The program will increase the accessibility of existing services by providing a central location for the provision of services and will bring existing services onsite through negotiating working agreements and contractual arrangements with the respective community agencies, and will act as a lead agency in meeting the needs of the target population. In addition, Patterns staff will provide outreach and inservice training to service providers and the general community.

Involvement of the family will be an important element in the Patterns program. Special groups for families and family counseling will be offered weekly. Family involvement will be a condition of admission to the program on a case-by-case basis, depending on the availability of significant and/or other immediate family members.

EVALUATION: The evaluation will conduct both process and outcome analysis. The evaluation plan will attempt to answer the following primary questions:

1. Is the program providing referrals and transportation when needed to service providers for substance-using pregnant women?
2. Can early intervention, compared to late or no intervention, result in better birth outcomes?
3. Can participation in a prenatal program result in a decrease in drug and alcohol use during pregnancy?

The outcome evaluation will include collection of the following data: Client demographics, number and types of services provided, number of prenatal visits, case manager and counselor notes, number and types of referrals made by the program, monthly summaries of progress, intake assessment, discharge summary, followup reports, number of referrals made to the program, number and types of services received by clients, results of the client satisfaction questionnaire, results of the referring agency satisfaction questionnaire, urinalysis results, and birth data outcomes.

Patterns will compare the birth data outcome of program infants with the same data for infants born in Monterey County whose mothers participated in a variety of other treatment modalities during their pregnancies.

EXPERIENCE TO DATE: The project is fully staffed and implemented, and has provided services to 43 women as of January 1993. The project has established interagency agreements to enhance accessibility and coordination of services for its clients.

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CSAP/MCHB
SP-01621
09/30/89–08/31/93
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PROBLEM: Located in densely populated southeast San Diego, the Logan Heights Family Health Center (LHFHC) serves a predominantly Hispanic, low-income population. A recent study conducted on the extent of AIDS in the user population addressed the prevalence of intravenous (IV) drug use in the service area. Estimates obtained from the San Diego Police Department indicate that one-third of the county's 25,000 IV drug users reside in the Logan Heights area, and that 80 percent of all IV drugs sold in the county come through Logan Heights. Police estimates are supported by the finding that 5.3 percent of all clients in the county drug treatment centers come from the Logan Heights zip code area, while that area accounts for only 1.9 percent of the county population. These figures do not address the issue of nonintravenous drug use (i.e., cocaine and other drugs), of alcohol use and abuse, and of those users who do not seek treatment.

The need for service is further supported by the results of a house-to-house survey conducted by the LHFHC Health Promotion Department. The survey found that a large majority of those contacted have someone in their family with an alcohol or drug abuse problem.

Lack of bilingual services is a critical problem in providing much needed assistance to the Hispanic population. The increasing number of monolingual Spanish speakers further compounds the problems of locating treatment, medical care, and intervention services.

GOALS AND OBJECTIVES: The overall goal of the project is to decrease the incidence and prevalence of alcohol and drug abuse among pregnant and postpartum women within the health center service area, thereby improving birth outcomes and reducing the incidence of infants affected by maternal substance abuse.

The project objectives include the following:

1. Increase educational outreach activities on the risks of substance use during pregnancy (including knowledge of the services available at LHFHC), reaching 4,500 women of childbearing age annually;
2. Maintain enrollment for 3 months by 33 percent of the women using project services each year;
3. Maintain the percentage of substance-using or at-risk pregnant and postpartum women enrolled in the project at 40 percent of program enrollment by August 31, 1993;
4. Decrease the overall risk status score (or reduce by 10 percent the individual risk factors) of women who enroll in and complete the Prevention of Substance Abuse (PSA) program;
5. Decrease the incidence of poor birth outcomes for 20–30 substance-using or at-risk pregnant and postpartum women enrolled in the project in each project year;
6. Maintain formal linkage agreements with 12–18 community-based organizations and/or LHFHC departments annually; and
7. Conduct inservice training for providers and support staff from participating departments within the health center and from other agencies in order to enhance staff capability to identify, intervene, and assist in the recovery of substance-using women.

METHODOLOGY: Program objectives fall under five major categories of activities:

1. Outreach and education: Information about the risks associated with substance use and pregnancy, as well as about the availability of culturally sensitive, bilingual, medically based services, is disseminated through activities targeting women of childbearing age, social service and community-based agencies, and churches.

   Program education is disseminated via fliers and informational sheets throughout the health center and the local community and neighborhood. Local Hispanic publications and radio stations are used to enhance community knowledge of program availability and to disseminate prevention information. Local agencies are kept apprised of program activities.

   Staff outreach has developed strong relationships with other social service agencies, resulting in multiple referrals of clients. Establishment by project staff of a monthly networking meeting called the "Brown Bagger's Lunch" for community agencies and local organizations has further strengthened linkages and cooperative service provision. Project-sponsored luncheons for service providers facilitate increased knowledge of available community resources, help eliminate duplication, and assist in easy access to services. More than 45 organizations have attended the luncheons, and both interest and participation increase monthly.

2. Screening and identification: Three major testing instruments are administered to clients at intake, at 3-month intervals, and at discharge. A risk assessment questionnaire has been developed to determine the level of risk of substance use, based on a composite of different life factors. An Interpersonal Checklist (a standardized psychological testing instrument) measures clients' self-esteem (ideal and actual). A comprehensive educational exam replaced group-specific pretests and posttests. This exam covers all project components and provides a measure for overall knowledge gained by clients participating in the program. All assessment tools are administered by staff who are trained in overcoming resistance. Staff review all these factors and involve the women in developing their individual care plan.

3. Case management: Using a staff team approach, women identified as users or at high risk are assisted in developing intervention/care plans. Difficult issues such as individual problem resolution, specific behavior change, followup, and long-term support are addressed regularly by case managers.

   Case managers are responsible for maintaining eligibility and community resource information, instructing clients in appropriate use of services, implementing referrals, and planning for discharge and continuity of care. Other linkages have been developed as appropriate, and may include recovery support services (residential and nonresidential), peer group meetings, respite and foster care, transportation, and shelter.

4. Counseling and support: Based on screening assessments and care plans developed through the case managers, women are enrolled in onsite services that address issues of concern appropriately. Emphasis is placed on facilitating individual behavioral changes and assisting individuals to reduce social/environmental factors that influence inappropriate drinking and/or substance-using behaviors. Services are sensitive to cultural values and beliefs.

5. Training: Inservice training, provided for in-house staff and as support for outside agencies, includes topics such as review of drugs in popular use, neonatal effects of perinatal drug use, diagnosis, myths and denial patterns, and development of intervention techniques, referral sources, and child protective services policies and procedures.

EVALUATION: An evaluation plan has been developed in conjunction with San Diego State University/ June Burnett Institute. The evaluation includes pretests and posttests of all educational sessions, staff chart notes and logs, a computerized data base, a tracking and referral system, compilation and analysis of patient demographic data, anecdotal reporting where appropriate, and biannual narrative reports.

EXPERIENCE TO DATE: In the last fiscal year, despite replacement of four staff members and the project director, the program reached a high level of stability and growth. The project provided services for 181 women at least one time. Several graduation ceremonies were held for women who had successfully completed the program.

The project provides a full complement of case management, educational classes, support groups, and counseling services. These include Substance Abuse Education, Relapse Prevention, and People in Transition (codependency and social skills) support groups; and Community Baby Shower (outreach/education for pregnant women).

In addition, the project is able to access other clinic resources for parenting classes, infant development assessments, and stimulation classes; HIV education and testing; prenatal education; and other health promotion opportunities.

An important objective of this project is to educate the community about problems of alcohol and other drug use. Therefore, a major media campaign was conducted in Spanish during January 1993. Posters located in buses and at transit stops showed a pregnant woman and the following slogan: *Pide ayuda contra el aicohol y las drogas. Tú no estás sola.* (Get help against alcohol and drugs. You are not alone.) A message explaining the importance of not using substances during pregnancy, assuring pregnant women that they are not alone and that help is available, was broadcast more than 600 times on radio and more than 400 times on television during January. A local Spanish station interviewed project staff once a week for 4 weeks on various subjects related to the campaign. (This campaign has not yet been completed, so evaluative results are not available.)

To increase client retention, an incentive program was developed and implemented during the last fiscal year. Gifts of personal care items, journals, and coffee mugs serve as incentives for participants to complete various components of the program. Gifts presented after posttests helped to ensure that clients would cooperate in postevaluation measures. This has successfully resolved the former difficulty in getting clients to schedule time for these tests.

Project New Beginnings: A Model Perinatal Substance Abuse/Child Welfare Program

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CSAP/MCHB
SP-02291
08/08/90–04/30/95
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PROBLEM: Since the mid-1980s, there has been marked escalation in the numbers of children from communities throughout the United States identified at birth as prenatally exposed to alcohol or drugs. Los Angeles County has been particularly hard struck, as evidenced by an almost 100 percent increase in referrals to child protective services for prenatal drug exposure from 1987 to 1989. Drug-exposed children face a range of medical, neurodevelopmental, behavioral, and environmental obstacles that can interfere with their optimal development. Often these children will need out-of-home placement.

Pregnant and postpartum women who are dependent on alcohol and other drugs must also overcome formidable barriers if attempts at family preservation or reunification are to be successful. Not only must they curtail their substance use, but they typically must also address a range of socioeconomic, interpersonal, psychological, medical, and parenting problems. Service delivery is often fragmented, with needed services rarely available at one site.

GOALS AND OBJECTIVES: Project New Beginnings was developed at Children's Institute International (CII) to improve developmental outcomes for children of substance-using parents. By providing intensive drug treatment, parenting training, counseling, and practical support to pregnant and postpartum women and early intervention services to children, the project endeavors to promote children's well-being and preserve and/or reunify families beset with alcohol and drug problems.

The project's primary objectives are to:

1. Identify pregnant women who are dependent on alcohol or other drugs and engage them in treatment services;
2. Improve birth outcomes for children by providing alcohol- and drug-dependent pregnant women with drug treatment, referrals to prenatal care, and active followup;
3. Reduce the alcohol and drug use of pregnant and postpartum women;
4. Promote family preservation/reunification when children are identified as drug or alcohol exposed;
5. Improve the parenting knowledge and skills of alcohol- or drug-dependent parents;
6. Reduce the risk of child abuse or neglect in alcohol- or drug-involved families;
7. Enhance the coping skills, self-esteem, and independent functioning of alcohol- and drug-dependent women;
8. Identify the specific developmental and psychosocial needs of alcohol- and drug-exposed children in the program and address those needs through early intervention services; and
9. Increase public and professional awareness of the risks associated with perinatal substance abuse.

METHODOLOGY: Specialized services for substance-involved pregnant and postpartum women and their children will be integrated into Children's Institute International's continuum of care for families in the child abuse and neglect system. Collaborating with CII in developing these services will be the University Affiliated Program at Children's Hospital, Los Angeles, which will provide developmental evaluations of the children, and the Exceptional Children's Foundation, which will provide occupational therapy services.

Pregnant and postpartum women will be referred by child protective services, the Los Angeles County Jail for Women, and other community agencies.

Services will include:

1. Family day treatment for parents and children;
2. Three 12-step groups and one relapse prevention group each week;
3. Drug counseling and testing;
4. Parent education (hands-on and in support groups);
5. A life skills class;
6. A support group for relatives;
7. Developmental evaluations of children and early intervention services;
8. Cross-referral, liaison, and followup with other agencies; and
9. Home visits.

To reach our program goals, we will:

1. Develop and maintain linkages with the network of social services and medical agencies serving this population in Los Angeles;
2. Develop and implement outreach strategies to identify and engage substance-involved pregnant and postpartum women, including written and videotaped material and the use of recovering parents as outreach workers;
3. Provide comprehensive drug treatment and parent education services;
4. Provide referrals and followup for prenatal care;
5. Develop and implement a transportation system to ensure that families can access services;
6. Develop and implement a training curriculum for professionals serving this population;
7. Provide community presentations on perinatal substance abuse; and
8. Develop an advisory board of community experts and an advisory council of recovering parents to provide consultation on a range of programmatic, clinical, and research issues.

EVALUATION: Process evaluation will include computerized tracking of all services provided to parents and children. In addition to their monitoring functions, these process data will permit investigation of the impact of the various program components on mother and child outcomes. The outcome evaluation will focus upon parental alcohol and drug use, birth outcomes for children, developmental outcomes for children, child abuse and neglect reports, and placement outcomes for children. Outcome will be assessed in terms of the level of services received. Outcome comparisons will focus on factors such as whether the child had been removed from the home and the type of substance used by the parent.

EXPERIENCE TO DATE: Thus far, approximately 200 alcohol- and drug-involved mothers and their children have been served by the project. The majority have been referred postpartum following positive toxicology screens. Of the pregnant women who have enrolled in the project, most have had other children already under child protective services supervision.

Of the mothers whose children were in their care at the time of referral to the project, approximately 5 percent have subsequently had their children removed from their care. Of the mothers whose children were placed out of the home when they began the program, approximately one-half have successfully reunited and many of the remaining families are still working toward this goal. Thus far, there have been no serious reports of children abused by their parents during or after participation in the program. Project staff have been actively involved in training professionals from other agencies, including more than 200 child protective service workers. Additionally, project staff have presented the project model at conferences throughout the country.

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SP-02129
07/01/90–06/30/95
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PROBLEM: Drug-exposed children enter the world with two problems: (1) The neurological effects of the drug exposure, and (2) the prospect of inadequate nurturing by a drug-using mother. Addressing either of these problems in isolation will not help drug-exposed children reach their full potential.

Traditional intervention strategies for young families affected by substance use have been fragmented and uncoordinated. Furthermore, the agencies providing the services have been viewed by the mothers as separate from and uncommitted to the community in which the mothers live.

GOALS AND OBJECTIVES: This project's two main goals are to: (1) Reduce the severity of impairment among children born to substance-abusing women through a therapeutic day care program for the children, coupled with a coordinated parenting program for the mothers; and (2) extend the impact of the direct services to the children through a comprehensive program of counseling, parenting, support, and medical care for the mothers.

The project objectives are to:

1. Provide a long-term, therapeutic day care program for substance-exposed infants, following the infants from birth to 60 months of age;
2. Provide a comprehensive set of health care, counseling, and training services to mothers focused through and organized around the services to children;
3. Provide pediatric services to infants; and
4. Complete enrollment of at least 45 infants and young children by January 1991 and 60 children by June 1991, and provide an ongoing program thereafter for 75 infants and young children.

METHODOLOGY: Under the leadership of the Ravenswood City School District, a coalition of public agencies will use coordinated resources to provide a unified approach to mitigate the adverse effects on children of their prenatal exposure to drugs, particularly crack cocaine. The county's Child Protective Services provides referrals of mothers and their infants, as well as followup counseling services for mothers. The county's Public Health Department provides medical screening and care to mothers and infants, substance abuse counseling to mothers, and some parenting training. It also provides funding for the center's infant specialist. The school district provides therapeutic day care, parenting skills training, and overall coordination of the program. It also extends the length of parent services beyond the time parents are normally under the guidance of Child Protective Services.

The program is based on the hypothesis that, by providing a sense of community for the mothers near their residences and by focusing the assistance on the care of their infants, both the treated infants and their earlier and later born siblings will benefit. The infants will benefit from the direct care they receive and from the fact that their mothers will learn to care for them more effectively. Their siblings will benefit because the mothers' lifestyles will become more structured and organized, and the mothers will free themselves from dependence on drugs

The center is open from 7:00 a.m. to 6:00 p.m. to provide support for mothers as they return to or enter the work force. A comprehensive, age-appropriate child development component is provided by district staff.

Supportives children's services are provided by child psychologists, a public heath nurse, a pediatrician, social workers, and language and speech therapists.

EVALUATION: Program evaluation has included data collection through questionnaires, observations, interviews, and videotapes. Focused evaluation on establishing a system for collecting and maintaining the information needed for a summative evaluation and on providing management guidance to the program director and the superintendent of schools has continued during the project's second year. In addition, evaluations were conducted to assess the benefits to the children. Subsequent evaluations will address the long-term effects of the early interventions as the children are mainstreamed in the General Child Development Program, and will look at the program's long-term effects on the mothers recovery.

EXPERIENCE TO DATE: The project continues to serve 45 infants and young children and their parents. During the second year, 15 children were mainstreamed with nonidentified drug-exposed preschoolers. The project has developed a curriculum and program guideline manual, has provided written and oral testimony for Congress and the U.S. Department of Education, and has drafted a position paper for a publication by the Center for Substance Abuse Prevention.

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CSAP/MCHB
SP-01498
02/01/90–01/31/95
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PROBLEM: Drug and alcohol use during pregnancy is a growing problem both nationally and in Santa Clara County (San Jose, California). The number of infants born with drug- and alcohol-related birth defects has increased dramatically over the past several years. For example, in the San Francisco Bay area, there has been a five- to ten-fold increase in the number of babies born addicted to drugs such as heroin, cocaine/crack, amphetamines, and PCP.

In Santa Clara County, a county with approximately 27,000 live births annually, the State of California's Department of Alcohol and Drug Programs estimates that about 4,860 (15–18 percent) of these newborns have been exposed prenatally to alcohol or drugs. Statistics from Santa Clara Valley Medical Center obstetric services indicate a rise in the number of women self-reporting substance abuse during pregnancy (from 3.8 percent in 1986 to between 7 and 8 percent in 1988). Since these figures are based on self-report only, they most likely represent an underestimate of the true incidence of substance abuse in this population.

The Santa Clara County Perinatal Substance Abuse Program (PSAP) is one of two programs in the county providing substance abuse treatment and recovery services specific to pregnant substance abusers. The two programs, which serve approximately 100 women at a time, can provide services to only a small fraction of those women in the county who could benefit from early intervention and treatment.

Current challenges in addressing the problem of perinatal substance abuse are: (1) Lack of education, outreach, and treatment services to the professional community and target population; (2) lack of early intervention services in prenatal clinics; (3) poor collaboration among perinatal health service providers and fragmentation of services; and (4) lack of an extended network in the community for women leaving treatment.

GOALS AND OBJECTIVES: The overall goal of the 5-year project is to formalize, expand, and enhance the existing Perinatal Substance Abuse Program to improve service delivery designed to meet the needs of substance-abusing women/adolescents and their children in Santa Clara County.

Key objectives in attaining this project goal are to:

1. Expand outreach and education services to community agencies and county departments serving pregnant and postpartum women and their children to achieve the earliest possible identification and referral of substance-abusing women into the program. We know that the earlier the intervention, the more positive the birth outcome will be for both mother and infant.
2. Increase collaboration among community- and county-based service providers to provide more education, care, and support options at all phases of the program, not just at discharge. This will allow the program to offer more services in the most cost-effective, culturally relevant, and personalized way possible.
3. Reduce fragmentation through development of a centrally located one-stop, multidisciplinary, full-service perinatal substance abuse center in the first year of the grant. This will make the key multidisciplinary components accessible to the client and increase client identification with the program.

4. Extend postdischarge support services through development of networks of community-based agencies and informal caregivers. This extended "community care system" will foster a more supportive environment to help women maintain healthier behaviors long term after delivery and after treatment, and to identify and meet the needs of infants to reduce the severity of any lasting effects of prenatal substance exposure.

METHODOLOGY: The Perinatal Substance Abuse Program is operated by the Santa Clara County Health Department's Bureau of Alcohol and Drug Programs. This 5-year project will expand community education and outreach services by hiring a full-time master's level health educator to work in training and educating both the professional and lay communities about the critical issues surrounding perinatal substance abuse. Early intervention will be accomplished by employing a specialized early intervention substance abuse counselor who will be assigned to work onsite in the county hospital prenatal clinics.

A coordinated case management system within our program works with other agencies providing services to our clients. The one-stop center provides comprehensive substance abuse treatment and support services, parenting classes, nutrition counseling, prenatal care, and pediatric followup, 12-step recovery groups, onsite child care, infant developmental assessments, and literacy and GED training. The full-service one-stop site has been in operation since the end of year 2.

Program services have been designed specifically for pregnant adolescents. A full-time master's level specialist has been hired for this project component.

Development of an extended community care network will be accomplished through community education and advocacy activities coordinated by the local Perinatal Alcohol and Drug Use Coalition (an independent consortium of public and private agencies) and by other existing networks of providers.

EVALUATION: The private consulting firm of Nancy J. Frank and Associates has been contracted to conduct process and outcome evaluations for the full term of the project. Initial work has included design of appropriate data collection methods within the PSAP program and review of data collection and sharing of information between agencies. The consultant has recommended necessary revisions in the system to accomplish: (1) Smooth flow of data between agencies, and (2) collection of objective data elements for both short-term and long-term outcome studies.

Years 1 and 2 have focused mainly on development of the data collection system that will ultimately enhance coordination of both intraagency and interagency services. Specific maternal and pediatric outcome measures have been developed and are currently being entered into the Bureau's information management systems. Plans for year 4 include extension of the perinatal data base system to all treatment providers serving pregnant and parenting women in the county.

EXPERIENCE TO DATE: All aspects of the grant are now in operation. The early intervention/case management coordinator has established an effective liaison/referral relationship with the Santa Clara County Hospital which delivers most of the high-risk/low-income/substance-exposed infants in the county. The specialized adolescent program has been fully staffed and operational since late 1990. Innovative approaches have been modified to reach this challenging population. The health education specialist, who was hired in early 1991, has assessed both community and professional education and outreach needs and has begun to implement a variety of informational and educational programs for both community and professional groups. Child development assessment/referral services have been expanded, and significant expansion has occurred in the parenting education and support component of the program. Collaboration with community support groups offering services to clients and children leaving the program has been developed under the Continuing Care/Alumni Partnership program. The evaluation component developed by Nancy J. Frank and Associates has been finalized and was fully implemented in the third project year. The substance abuse treatment components of the program have been strengthened in year 4 by adding onsite individual and group literacy training designed specifically for mothers in early recovery.

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CSAP/MCHB
SP-01509
08/01/90–06/30/93
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PROBLEM: Alcohol and drug use among pregnant and parenting women has potentially devastating social, economic, and physical effects, not only on the abusers but also on their children and other family members. Pregnant and parenting substance abusers are at risk for poor pregnancy outcomes, poor general health, and major social problems such as domestic violence, joblessness, and homelessness. Their newborns seem more likely to be born premature, intrauterine growth retarded, sick, and at risk for both short-term and long-term developmental delays and abnormalities. Children in alcohol/drug-exposed homes are at risk for poor health care, poor developmental outcomes, and abuse and/or neglect. Many of these problems are directly related to the lack of health care and drug/alcohol treatment services targeted to meet their needs.

The SHIELDS for Families Project (formerly Sisters Helping Individuals Towards Empowerment, Love, Development, and Strength) is located on the campus of the King/Drew Medical Center and in various other community-based sites in South Central Los Angeles. The King/Drew Medical Center includes the Martin Luther King Jr. General Hospital, a county facility that provides most of the health care for the predominantly low-income African-American and Latina population of South Central Los Angeles. Approximately 9,000 infants are delivered each year at the King/Drew Medical Center, and a Federal General Accounting Office study in 1989 estimated that approximately 11 percent of all deliveries there were to mothers who abused illegal drugs and/or alcohol during pregnancy.

The SHIELDS for Families Project attempts to address the needs of substance-abusing women who either seek prenatal care or deliver a drug-exposed infant at the King/Drew Medical Center. The portion of SHIELDS funded by the Center for Substance Abuse Prevention (CSAP) focuses on developing an Intake, Outreach and Referral Unit (IOR Unit) within the Outreach and Followup Project, and a Latina outreach component that works with the hospital's prenatal and pediatric services to identify all pregnant and postpartum substance abusers and ensure that they access health care for themselves and their children. In addition, the program attempts to facilitate access to drug treatment by providing appropriate referrals within the SHIELDS program or community-based programs and by developing and implementing a model family-focused intensive outpatient drug treatment program, The EDEN Developmental Center. It also supports the operation of the SHIELDS Medical Unit which provides a Saturday clinic to exclusively serve this population of high-risk children.

Treatment programs typically have not addressed the parenting, habilitation, and special health needs of recovering women with children. The SHIELDS model treatment program, The EDEN Developmental Center, provides a family-focused intensive outpatient treatment program that includes drug and alcohol education, group and individual counseling, life skills building and vocational education, and therapeutic developmentally focused parenting sessions and child care.

GOALS AND OBJECTIVES: The project goals are to:

1. Increase the availability and accessibility of prevention, early intervention, and treatment services for pregnant and parenting substance abusers and their children;
2. Decrease the incidence and prevalence of drug and alcohol use among pregnant and postpartum women;

3. Improve the birth outcomes of women who used alcohol and other drugs during pregnancy and decrease the incidence of infants affected by maternal drug use; and
4. Reduce the severity of impairment among children born to substance-using women.

The project objectives are to:

1. Develop and implement an Intake, Outreach and Referral (IOR) Unit within the Outreach and Follow-Up Project that will work with the OB/GYN and Pediatric Departments at the King/Drew Medical Center to improve access to and utilization of health care services by pregnant and postpartum substance abusers and their children.
2. Improve the health and developmental outcomes of drug-exposed infants through the outreach and followup program's efforts to increase health care utilization of the High Risk Infant Follow-Up Program, the Outpatient Pediatric Clinic at the King/Drew Medical Center, and the SHIELDS Medical Unit, and through specific monitoring of growth, immunization status, pediatric developmental assessments, and appropriate referrals to developmental intervention programs.
3. Implement and fully utilize treatment slots developed at The EDEN Developmental Center and ensure that the treatment provided is family focused and designed to meet the specific needs of substance-abusing pregnant and parenting women, and includes comprehensive health care, education, and access, including prenatal care for subsequent pregnancies.
4. Develop a specific outreach program targeting the needs of Latina women through needs assessment activities at King/Drew Medical Center; develop, disseminate, and evaluate education materials targeted for this population; and improve internal mechanisms at SHIELDS and at King/Drew Medical Center.
5. Ensure that families participating in the portion of the SHIELDS for Families Project funded by CSAP will demonstrate improved outcomes through increased use of both health care and drug treatment services.

METHODOLOGY: The SHIELDS for Families Project works with the Obstetrics and Gynecology Department and the Department of Pediatrics at King/Drew Medical Center to develop a data-tracking system which includes demographic, medical, and drug/alcohol exposure data on every woman delivering a drug-exposed infant at the Medical Center. This information is maintained by the Outreach and Followup Project, which is then responsible for tracking these infants to ensure that they receive optimal well-child care, developmental screening, and referral to developmental intervention programs as needed. The IOR Unit within the Outreach and Followup Project provides referrals for prenatal care, family planning, and drug treatment to the mothers. Collaborative relationships have been developed with community-based medical and drug treatment providers and social service agencies including the Los Angeles County Department of Children's Services and the Juvenile Dependency Courts.

The EDEN Developmental Center, which initially provided support services to substance-abusing women through a grant from the Los Angeles Department of Children's Services, has been expanded (with CSAP funding) to include drug treatment and other services described above. EDEN will continue to be developed as a model to provide intensive outpatient drug treatment services for mothers, children, and other family members. As a model, it will serve a small number of families (in any given group) in which the mother is the primary child caregiver.

EVALUATION: A process evaluation is ongoing and includes collection of extensive data on the client population. An assessment of the effectiveness of the Outreach and Followup Project is being conducted by comparing health care utilization for the year prior to instituting the tracking process with present utilization. In addition, objective evaluations of the value of health screening and service delivery are being performed by comparing the growth and development of the children being tracked with growth and development statistics reported in the literature. The effectiveness of the treatment component at EDEN is being evaluated through monitoring the sobriety of women in the program and through developing tools to evaluate health and drug-use status during treatment and after graduation from the program.

EXPERIENCE TO DATE: The portion of the SHIELDS for Families Project that is funded by the Center for Substance Abuse Prevention has been operational since August 1990. The Outreach and Followup Project data base has been established and is being fully utilized at SHIELDS and within the King/Drew Medical Center. The IOR Unit is functioning smoothly and the Outreach Project tracking protocol has been developed and is being implemented. Collaborative relationships have been effectively established with more than 40 local agencies, including the King/Drew Medical Center OB/GYN and Pediatric Departments, the Department of Children's Services, and the local regional center. The primary problems encountered to date have been related to (1) the development of a user-friendly tracking system capable of following children who may be discharged to multiple placements and/or experience multiple placements during the 2-year followup period, and (2) the need to rely upon and work closely with hospital-based staff to generate accurate and timely data on the client population served by this project. County budget problems and other internal issues beyond the control of the project often reduce project efficiency, and remediation of these issues requires considerable staff time and attention. To resolve these matters, the project has developed sound relationships with the Department of Children's Services in Los Angeles County to help ensure followup of high-risk children, although the effectiveness of these efforts is hampered at times, due to high caseloads and staff turnover. We also work closely to provide technical assistance and any additional assistance to the hospital-based staff in pediatrics and obstetrics to help ensure their cooperation and to generate quality data.

The EDEN Center is fully operational and functioning at 90–110 percent capacity. An assessment of the drug knowledge needs of Latina women who use the medical center was conducted through interviews with 200 women. Analysis of the assessment revealed a dramatic increase in need among this population. A Hispanic services resource directory for the local community was therefore compiled and distributed to SHIELDS and King/Drew Medical Center staff to help improve referrals and staff awareness of the problems. The SHIELDS Medical Unit has been established and is already overutilized and is operating at nearly 200 percent of its originally planned capacity. Ongoing outreach is under way to improve patient utilization of services at the King/Drew Medical Center Pediatric Services and to ensure patient compliance and necessary pediatric referrals.

Solid Foundation Model Demonstration Project for Postpartum Women

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CSAP/MCHB
SP-04928
08/01/92–05/31/97
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PROBLEM: The number of residential beds and other treatment programs that serve pregnant and postpartum addicted women and their offspring in Oakland and Alameda County is far surpassed by the number of women who seek and need service or treatment. The limited number of treatment beds makes it imperative that programs currently serving this population provide the most coordinated and effective program possible. Currently, many women who enter the the residential recovery program have a host of other problems and issues that impede the immediate provision of drug treatment and recovery services. In addition, once women leave residential care after successfully completing the program, the supportive services and support networks are usually not developed enough to help them maintain a drug-free lifestyle and prevent relapse. Further, staff turnover and inadequate staff training can render a program less effective.

GOALS AND OBJECTIVES: The project has established the following goals and related objectives:

Goal 1: Increase the availability and accessibility of prevention, early intervention, and treatment services for alcohol- and other drug-using pregnant women and for their infants.

Objectives:

a. Expand the capability of Solid Foundation to provide early outreach and case management services to additional women by implementing a precare component to address the program's extensive waiting list, as a precursor to admission to one of the project's residential facilities or referral to another appropriate program or service;

b. Increase the rate of retention from 75 to 90 percent for Solid Foundation's residential treatment, especially in the early stages of treatment;

c. Implement a coordinated and expanded aftercare component that addresses the multifaceted needs of women and their infants; and

d. Reduce the average length of stay for Solid Foundation's residential program participants from 12–18 months to 6–12 months.

Goal 2: Promote and improve the coordinated participation and education of multiple organizations in the delivery of integrated, comprehensive services.

Objectives:

a. Develop and implement the capacity of Solid Foundation to serve as a resource model for regional, statewide, and national dissemination and replication;

b. Provide for continuity of overall operation in the development of the replicable Solid Foundation/Mandela House model program; and

c. Reduce the rate of project staff turnover to 20 percent or less per year and maintain staff continuity and commitment to program goals and objectives.

Goal 3: Demonstrate improvement in birth outcomes of women who enter the program, decrease the incidence of infants affected by maternal substance abuse, and reduce the severity of impairment among children born to substance-abusing women.

Objective: Conduct a 5-year retrospective/prospective evaluation of infants born to mothers in the residential program. The evaluation will also include retrospective information.

METHODOLOGY: Solid Foundation, Inc., plans to develop a replicable model of expanded and improved services, using an already proven model of residential service delivery for pregnant and postpartum alcohol- and other drug-abusing women and for their infants. The planned demonstration program intends to increase, enhance, and improve accessibility of services to this population by adding a precare component (providing services prior to admission to the residential program), an aftercare component, and increased networking and coordination with new and existing community agencies and organizations. In order to demonstrate effectiveness, the project will monitor and assess birth outcomes of the program's participant population by implementing an infant development/assessment component. This component will include retrospective information collected on babies and will follow the progress of the infants and mothers over the 5-year grant period. Overall, Solid Foundation intends to document and assess its program implementation through a rigorous evaluation protocol that will measure program processes and short-term and longer term program and participant outcomes. In addition, the program will address the issues of staff continuity and stabilization. Finally, Solid Foundation will develop the capacity to serve as a model program for dissemination regionally, statewide, and nationally.

This program intends to enhance the existing program based on the Mandela House model and to use existing structures, systems, and expertise to develop an improved and more efficient service delivery model that can effectively fill gaps, serve a larger number of women and babies, and ensure better outcomes for the women and their infants. The program also plans to coordinate efforts with new and existing provider networks through provider education and dissemination, in order to take full advantage of the experiences and expertise gained in working with this population and to adapt to the numerous demands of the community. This approach will have a positive impact on a much larger number of alcohol- and drug-dependent pregnant women and their infants.

EVALUATION: The two major goals of the evaluation are to (1) determine whether the precare and aftercare components of the project have accomplished the stated goals and objectives, and (2) describe in detail the design, implementation, and operation of the precare and aftercare components and their integration with the residential component. The first goal is outcome oriented and the second is process oriented.

A study of the implementation of the precare and aftercare components of the program is complementary to the outcome evaluation. The process evaluation will describe how these components were envisioned and whether they were implemented as planned. The process evaluation will also provide information about the types of services offered, the providers, the participants, and the time, place, and frequency of these services. Much of this information will come from archival data found in documents such as program plans and budgets, staff communications and memos, meeting agendas and minutes, program calendars, and participants' case files. Semistructured interviews will be conducted to provide the desired data not expected from existing documents as well as to gain the human perspective that written documents cannot provide.

The outcome evaluation will determine whether the goals and objectives of the project have been met. Additionally, it is designed to allow for the discovery of unintended outcomes of both the precare and aftercare components of the program. Much of the data for the outcome evaluation will come from the participants' case files. During intake, baseline demographic information will be collected, in addition to information such as a drug and alcohol profile, health history, financial status and family support, legal history, education, and job history. As part of the Solid Foundation/Mandela House program, participants are given the Adult Adolescent Parenting Inventory, administered to participants again after 6 months in the residential program and again at completion of the program. The results of this inventory will be available for use as an outcome measure of the participants' parenting knowledge and skills.

EXPERIENCE TO DATE: The residential programs, Mandela House and Keller House, are ongoing and already established, and the precare coordinator and aftercare coordinator are currently being recruited. The infant assessment component is in place and the evaluation is being implemented as planned.

Special Perinatal and Rehabilitation Clinic: A Project for Pregnant and Postpartum Women and Infants

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CSAP/MCHB
SP-01455
02/01/90–01/31/94
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PROBLEM: The problem of perinatal substance abuse has reached epidemic proportions and continues to increase exponentially. The majority of addicts are polysubstance abusers; at least half smoke cigarettes, a quarter abuse alcohol, and the majority use more than one illicit drug. Perinatal substance abusers have many common problems, which include the following: Low birthweight births, preterm labor and delivery, perinatal infections, intrauterine growth retardation, congenital anomalies, lower gestational age at delivery, and an increased proportion of infants who are small for gestational age. In 1986, Los Angeles County reported 915 cases of withdrawal among neonates, 61 percent of whom were delivered at 1 of the 3 medical centers operated by the Los Angeles County Department of Health Services. Seventy percent of the toxicology screens revealed cocaine. Neonatal withdrawal in 1987 doubled to 1,888, and estimates for 1988 approached 3,000.

GOALS AND OBJECTIVES: This project's two primary goals are to:

1. Increase the availability and accessibility of prevention, early intervention, and treatment services for the target population; and
2. Improve the birth outcome of women using alcohol and other drugs during pregnancy and decrease the number of infants affected by maternal substance abuse.

The project objectives are to:

1. Identify 100 obstetric substance-abusing mothers in South Central Los Angeles and maintain at least 75 in the Special Perinatal and Rehabilitation Clinic (SPARC) project through delivery;
2. Involve and maintain 50 percent of the 75 clients in continuing postpartum followup care for 1 year (including family planning services, sober living arrangements, participation in a 12-step program, and regular support groups as appropriate);
3. Reduce substance abuse, obstetric complications, and perinatal mortality among women and infants enrolled in the project;
4. Provide comprehensive perinatal, postpartum, family planning, and drug treatment services to all women enrolled in the project; and
5. Provide well-baby care, including developmental assessments, and referrals for special services for infants whose mothers have been enrolled in the special prenatal clinic for obstetric substance-abusing mothers.

METHODOLOGY: Under the leadership of the Public Health Foundation of Los Angeles County, Inc. (PHF), the County of Los Angeles Department of Health Services, the City of Compton, the SPARC project uses multiple agencies in the Compton/South Central Los Angeles area to provide services for the women enrolled in the program. Dollarhide Health Center is used for prenatal services, postpartum family planning, and well-baby care. Compton Special Services, an existing outpatient drug treatment program, is used for the drug treatment component of this project. King/Drew Medical Center provides special obstetric services, including ultrasound, fetal monitoring, high-risk obstetrics, and deliveries. The SPARC project also collaborates with the King/Drew Head Start and Medically Fragile Infant Project.

To reach our program goals, the project:

1. Provides medical care, health education, nutrition services, drug treatment, counseling, psychosocial services, special obstetrics and delivery services, pediatric/neonatal and postpartum/family planning services, and referrals for services for battered women, child care, and legal assistance;
2. Identifies pregnant substance abusers in the community who are not receiving prenatal care, and enrolls them in the project;
3. Provides prenatal and postpartum home visits, parenting education, and assistance to patients in utilizing community services;
4. Has developed a resource manual of services available to patients in the target area; and
5. Is reducing obstetric, perinatal, and pediatric complications through early intervention, comprehensive care, followup, referrals, and incentive programs.

EVALUATION: Methods include both process and outcome data. Process data include the ongoing assessment of the availability and acceptability of prenatal care, substance abuse counseling, and treatment for our clients. We also assess the effectiveness of our case management services to assure compliance with prenatal care, substance abuse treatment, and counseling. Descriptive statistics of demographic service delivery and pregnancy outcome are examples of the types of information to be identified. Data sources include patient registration and appointment logs, and medical records of prenatal care, drug treatment, and birth outcome.

EXPERIENCE TO DATE: SPARC continues to collaborate with the Los Angeles County Probation office, Department of Children's Services, and other Los Angeles County health clinics, and has established liaison with a local residential drug treatment facility and several houses of sober living. The project continues to provide prenatal and substance abuse education to SPARC clients and the community. Staff members make home visits and telephone calls to patients who break prenatal and drug counseling appointments. Newborn assessment takes place during home visits. The Comprehensive Prenatal Care and Child Development services are the most heavily utilized components of the project. The drug treatment component and substance abuse counseling have historically been problematic, because a consistent drug counseling and social work team has been difficult to maintain. However, progress has been made during the past year. The program is achieving its goal of retaining at least 75 percent of our clients through delivery.

Project outcomes and characteristics of the client population include the following:

1. The project provided perinatal medical and drug counseling services to substance-abusing women (260 pregnant women and 48 postpartum women) between February 1, 1990, and October 31, 1992;
2. The client population is composed of 257 African Americans (83 percent), 37 Latinos (11 percent), and 12 Caucasians (6 percent);
3. The mean age of our clients is 27.7 years, with a range of 13–43 years;
4. The mean number of years of education is 11.1, with a range of 1–16 years;
5. Eighty-three (80 percent) of our clients entered care during their first or second trimester;
6. Birth outcome are available for 137 obstetric substance-abusing mothers: 117 infants (85 percent) were born drug-free, and the mean birthweight was 2.911 grams, with an equal split in gender between boys and girls; and
7. Two neonatal deaths and one postnatal death have occurred among our clients; there have been no stillbirths.

Support, Outreach, and Services for Women and Infants

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CSAP/MCHB
SP-01172
02/01/90–01/31/95
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PROBLEM: Substance use among pregnant and parenting women and women of childbearing age causes catastrophic repercussions for the drug-exposed infant, the mother, her family, and the community. Studies conducted in 1989 suggested that drug-exposed infants represented 7 percent of all resident births and 12–15 percent of all births at San Francisco General Hospital. The average hospital costs associated with caring for a cocaine-affected infant until discharge were conservatively estimated at $28,000 in 1988, which is four times the national average for unexposed infants.

Pregnant and postpartum substance abusers present a multiplicity of needs and require an array of interventions to effectively address these needs, including education and prevention, medical care, drug treatment, and support services. Delivery of comprehensive services is impeded by the serious lack of coordination among providers and the general lack of community awareness of the needs of this population. Pregnant and postpartum women experience limited availability of and access to prenatal/postnatal care and drug treatment alternatives. Often, these women lack necessary social support networks, experience an increased incidence of medical and emotional problems, have a limited knowledge of parenting and basic life management skills, and exhibit poor dietary and nutritional practices.

GOALS AND OBJECTIVES: The San Francisco Department of Public Health has identified the following goals and objectives directly related to the national goals outlined by the U.S. Department of Health and Human Service's Center for Substance Abuse Prevention in Model Projects for Pregnant and Postpartum Women and Their Infants (PPWI):

Goal 1: Increase the availability and accessibility of prevention, early intervention, and treatment services for pregnant and postpartum women and their infants.

Objective: Based on identification of service gaps and system barriers, increase by 25 percent the availability and accessibility of comprehensive services to 500 pregnant and postpartum women and their infants through networking with community agencies, maintaining linkages with service providers, and implementing perinatal addiction awareness programs.

Goal 2: Decrease the incidence and prevalence of drug and alcohol use among pregnant and postpartum women.

Objectives:

a. Based on identification of substance abuse risk factors among the target population, increase by 20 percent the awareness of perinatal addiction issues through primary prevention services to 1,500 women at risk for pregnancy and addiction.

b. Based on initial assessment of the target population, increase by 50 percent the rate of pregnant and postpartum women who participate in substance abuse treatment through outreach and early intervention.

c. Following substance use assessment, reduce by 50 percent the incidence of drug use for up to 500 enrolled pregnant and postpartum women by providing alcohol/drug counseling, case management, relapse prevention, and related services.

Goal 3: Improve birth outcomes of women who used alcohol and other drugs during pregnancy and decrease the incidence of infants affected by maternal substance use.

Objective: Using as a comparison the clinical records or other data sources on infants born to nonparticipating substance-abusing mothers, assure minimum birthweights of 2,500 grams and negative toxicology at birth for at least 50 percent of the infants born to 50 women who participate in comprehensive case management and intensive substance abuse day treatment.

METHODOLOGY: The Support, Outreach, and Services (SOS) for Women and Infants project is a collaborative effort of Community Substance Abuse Services and community-based organizations in response to the need to develop a comprehensive program for substance-using pregnant and postpartum women and their infants. The SOS project aims to provide early intervention, treatment, and support services to low-income women of color addicted to crack/cocaine who reside in the Mission District and Bayview Hunter's Point areas of San Francisco. SOS is a drug-free outpatient model using a team approach to assure coordination of outreach, case management, substance abuse treatment, and prenatal services to promote the shared goal of recovery and an optimal outcome for mothers, infants, families, and communities.

The client and case manager develop an individual service plan. The case manager assists clients in recognizing their problems, and coordinates and monitors access to prenatal care, treatment services, health education and nutrition counseling, parenting and life skills training, child care, and transportation assistance.

Drug counseling assists clients by providing education, support, and motivation for women making the transition from addiction to abstinence. The drug counselor helps clients develop skills to reduce their dependence and establish a recovery lifestyle plan with emphasis on personal growth and family functioning. The case manager and drug counselor participate in case conferences to assure overall service delivery and continuity of care.

An important element of the project is the coordinated effort between staff and the Department of Social Services/Child Protective Services to maintain intact families and promote family reunification. In addition, the project provides outreach and education to individuals and communities on the issues of perinatal substance abuse and the availability of treatment alternatives and support services for substance-using pregnant and postpartum women.

EVALUATION: Conceptually, the SOS evaluation is divided into two plans: One attempts to measure impacts on the system; the second measures impacts on the target population. Within each plan, process measures and outcome measures are proposed. Process measures are designed to capture the quantity and quality of project staff activities. Outcome measures are designed to assess the change (positive or negative) in the program objectives and goals. Both measures are collected during a common time period. The aim of the evaluation design is to connect the program activities (in a cause and effect manner) to the program goals and objectives. A separate evaluation is currently in process to document and analyze the program implementation process. The objective of this evaluation is to learn from the experience of the first 2 years of operation and to avoid identified problems in designing future programs.

EXPERIENCE TO DATE: The project has accomplished the following measures to date:

1. Case management, drug treatment, psychosocial, and perinatal protocols have been developed.
2. Case management, drug treatment and support services have been provided to more than 278 women since the project began.
3. The San Francisco Perinatal Substance Abuse Coordinating Council was formally convened and voted to pursue nonprofit incorporation status.
4. Project staff participated in a variety of forums, festivals, health fairs, and other community activities presenting substance abuse awareness information and urging pregnant women to seek prenatal care. More than 7,000 pieces of literature have been distributed to hospitals, social services, and community-based agencies and through neighborhood canvassing.
5. The project has established satellite referral and an information station at the Department of Social Services and Health Center #3.

6. Staff have arranged to have SOS project materials distributed to each recipient of Aid to Families with Dependent Children (AFDC) with her bimonthly checks.
7. The project has recruited a community volunteer who works with clients in developing support networks and using self-help recovery groups.
8. The project has established weekly drop-in family support groups, has increased efforts to work with partners/significant others, and has improved attendance at monthly family night.
9. The project has revised the parenting curriculum to emphasize cultural aspects of childrearing techniques.

Women and Infants Needing Drug-Free Opportunities Project

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CSAP/MCHB
SP-02414
07/01/90–04/30/95
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PROBLEM: The problem of alcohol and other drug abuse among pregnant and postpartum women has long been a concern within Mendocino County. Mendocino County has become a major marijuana and methamphetamine production area. This, coupled with multigenerational norms for excessive alcohol consumption, has created a highly charged environment for pregnant and postpartum women at risk for alcohol and other drug problems.

The Women and Infants Needing Drug-Free Opportunities (WINDO) project is a comprehensive, multidisciplinary, community-based collaborative effort to prevent and intervene in the use and abuse of alcohol and other drugs by pregnant and postpartum women.

GOALS AND OBJECTIVES: This model project is designed to achieve the following goals:

1. Reduce the incidence and prevalence of alcohol and other drug use among pregnant and postpartum women residing in Lake and Mendocino Counties through the development of a comprehensive service delivery system;
2. Increase the availability, accessibility, and utilization of prevention, early intervention, and treatment services by the target population by building upon the existing health care and human service delivery systems in operation throughout the two-county area; and
3. Develop a cost-effective, replicable model for the coordinated participation of multiple organizations in the delivery of comprehensive services for substance-using pregnant or postpartum women and their infants in a rural area, or in urban and suburban areas where multiple agencies are involved in the delivery of related services.

The project objectives are to:

1. Decrease the number of women who are using alcohol and other drugs during pregnancy;
2. Decrease the incidence of infants affected by maternal substance use; and
3. Improve birth outcomes among women who have used alcohol and other drugs during pregnancy, and reduce the severity of impairment among children born to substance-abusing women.

METHODOLOGY: The WINDO Project is designed to serve as a comprehensive, community, collaborative model. Existing community services will be linked into a coherent system for early outreach, educ... identification, intervention, and substance abuse treatment for the target population.

The development of a comprehensive delivery system will include:

1. Substance abuse education/primary prevention services aimed at pregnant women and women of childbearing age;
2. Early identification, assessment, and referral of substance-abusing pregnant and postpartum women;
3. Alcohol and other drug abuse treatment and support services for pregnant and postpartum women and their children that are fully integrated into the existing systems of prenatal care;

4. An improved, expanded, and better coordinated system of prenatal care in the outlying areas of this rural region;
5. Parenting training, health education, emotional support, child care, assessment, and transportation for pregnant and postpartum women and their children;
6. Referral to and coordination with existing high-risk infant intervention services and child health services; and
7. Ongoing support of abstinence, parenting training, health education, and support services for parents and children.

EVALUATION: An outside evaluator has been contracted to develop and implement the WINDO Project evaluation. Following the basic plan provided, the evaluator has developed the evaluation design and the corresponding data collection instruments and system for data analysis.

The project evaluation includes both process and outcome evaluations. The process evaluation is based on the project workplan. This workplan includes quantifiable and time-specific process objectives, activities to be implemented to accomplish those objectives, and a description of the tasks involved in implementing each activity. The evaluation plan denotes each activity, the implementation or process questions to be evaluated for each, the measures and indicators for this evaluation, the data source for the measurement, and the data collection method to be used.

Forms have been created to track the activities accomplished for each process objective. Client participation in the program is being tracked using a different set of forms, and treatment outcome is being measured using comparisons of Addiction Severity Index (ASI) scores taken before and after participation in the project. The process and outcome evaluations are supported by interviews with WINDO staff and administration, participating clients and service providers, and staff of networking agencies.

These data are being collected monthly by the project evaluator and analyzed quarterly to ascertain the progress that has occurred in implementing the process objectives and to track the client outcomes to date. A quarterly analysis will be presented to the project staff for use in program modifications as appropriate. The end-of-year evaluation report will integrate this quarterly information into a yearly summary. A final report to the Center for Substance Abuse Prevention will summarize the yearly reports and report project outcomes.

EXPERIENCE TO DATE: The project was fully staffed as of September 30, 1991. More than 100 women and children have been enrolled in the project. Project staff have provided outreach to more than 70 pregnant/postpartum women. Over 300 women of childbearing age have been contacted and/or have received educational services. Work has begun to inform health and human services agencies of the services available and the referral system to be used, as well as to initiate collaborative efforts and to begin to develop memorandums of understanding.

The WINDO prevention/education training component has become operational. A perinatal substance abuse curriculum has been developed to meet agency/professional needs and concerns. Training for the Special Supplemental Food Program for Women, Infants and Children (WIC), Comprehensive Perinatal Services Program clinics, county schools, Head Start centers, and other health and human services professionals focuses on prevention of drug-exposed infants as well as identification, intervention, and referral for chemically dependent pregnant and parenting women.

Case Management for Pregnant and Postpartum Drug Abusers

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CSAP/MCHB
SP-01181
02/01/90–01/31/95
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PROBLEM: Alcohol and other drug use is a prevalent public health problem, affecting women of childbearing age. Women who are dependent on alcohol and other drugs frequently begin using substances prior to pregnancy. Many women are uninformed about the risks of cigarettes, alcohol, and other drug use to their own health and that of their future child. Therefore, universal prevention education is an essential component of comprehensive prenatal care. Many women will eliminate their substance use once they understand the risks. Education is an important and necessary intervention, but education alone is insufficient in assisting individuals who are dependent on alcohol or other drugs to change their behavior.

Prenatal service providers who are caring and nonjudgmental can assist the pregnant client by helping her to address her substance use. These clients and their children are medically and socially vulnerable. The multiple needs of these families can best be addressed by the supportive and comprehensive approach of case management staff who have been cross-trained to assist pregnant women and young mothers who are dependent on alcohol and other drugs.

GOALS AND OBJECTIVES: This project, known in the local community as Healthy Choices for Women and Children (HCWC), has three goals:

1. Promote the involvement and coordinated participation of multiple organizations in the delivery of comprehensive services for substance-using pregnant and postpartum women and their infants;
2. Increase the availability and accessibility of prevention, early intervention, and treatment services addressing the needs of pregnant and postpartum women and their infants who are current substance abusers or who are at risk for substance abuse; and
3. Improve the pregnancy outcomes of women who use alcohol and other drugs.

The project objectives are to:

1. Increase by 15 percent the awareness of Healthy Choices for Women and Children services by providers in the fields of health, social services, and substance abuse treatment through interdisciplinary education, training, and information;
2. Increase by at least 10 percent annually the interdisciplinary referral rate among providers in the fields of health, social services, and substance abuse treatment by providing interdisciplinary education and information;
3. Increase by 10 percent annually the number of pregnant and postpartum women and their infants who receive prevention, early intervention, counseling, and case management services from HCWC project staff;
4. Increase by 10 percent annually early intervention counseling and case management services provided through the project's colocation of services for pregnant and postpartum women at risk for substance abuse and for their infants;
5. Increase by 10 percent from baseline the annual number of substance-abusing pregnant and postpartum women who participate in prenatal health services, and by 25 percent from baseline the annual number who participate in postpartum health services; and

6. Increase by 10 percent annually the number of infants who receive comprehensive health, developmental, and social services.

METHODOLOGY:

The transdisciplinary case management staff of the Healthy Choices for Women and Children project is colocated at the four prenatal clinics in Waterbury (St. Mary's Hospital Clinic, Waterbury Hospital Clinic, Stay Well Health Center, and Early Pregnancy Resource Center–Waterbury Health Department). The case management team is cross-trained and is composed of a substance abuse counselor, social services counselor, and registered nurse.

Project staff onsite increase the availability and accessibility of prevention, early intervention, and case management services through the colocation model. The case manager is introduced to each new prenatal clinic client so that the client can become familiar with project staff and services. Project staff offer each client a HCWC brochure as well as written information (bilingual, as needed) about the risks of cigarettes, alcohol, and other drug use during pregnancy. At two of the four sites (St. Mary's Hospital–Adult Primary Care and Early Pregnancy Resource Center–Waterbury Health Department), prevention educational videotapes are shown to clients awaiting their appointments.

Clients are referred to the project case manager by nurses, nurse midwives/nurse practitioners, social workers, and doctors. Referrals are based predominantly on voluntary self-disclosure. Pregnant women who are presently using alcohol and other drugs, who have a history of substance use, or whose current partners are active users, are referred to the project by the provider. Project staff also provide considerable guidance, support, advocacy, and counseling in developing empowerment skills. Clients need and use these skills as parents, partners, tenants, workers, students, and finally, as consumers of health care, social services, and alcohol and drug treatment. Many clients receive support and encouragement to develop and use these skills (such as participating in a telephone intake with a treatment program or family support program.

The essence of the HCWC project strategy is to continue to provide support for the client's behavioral change by beginning where the client is and continually emphasizing the benefits of empowerment and recovery. This strategy has been so successful with Healthy Choices for Women and Children because it embodies a clear understanding that behavioral change is incremental.

The HCWC transdisciplinary case management team and coordinator expect to continue the colocation of services model at the four prenatal clinic sites in Waterbury. The colocation model allows the opportunity for project staff to provide a continuum of services from primary prevention to early intervention (from risk reduction to relapse prevention) through immediate access to the onsite HCWC case manager.

The philosophy of the HCWC program and staff, which is practiced daily with clients, is the empowerment of women through guidance and support for positive change. The project expects to continue this approach and to expand the emphasis to include the relationships that are central to the lives of women (especially their relationships with children, mother, and partner). This has been a project priority; however, the staffing level in the postpartum component of the project is inadequate to maintain frequent personal contact with clients, thus making it difficult to support women as they struggle to be better parents and to be more appropriately assertive with their partners and parents.

Many HCWC clients want to "get off" entitlement programs. Due to the target population of pregnant and postpartum clients, virtually all women have child care needs that must be addressed successfully so that mothers can return to work and school. HCWC assists women in identifying the supportive and safe family and friends with whom they can leave their children while pursuing education and employment goals.

EVALUATION: The Department of Behavioral Sciences and Community Health of The University of Connecticut Health Center is responsible for evaluating the Healthy Choices for Women and Children program. The evaluation design includes both process and outcome measures. The process measurement component consists of ongoing monitoring and data collection documenting time and effort in carrying out the intervention and delivery of the intervention as intended. Specific process measurement activities include (1) maintaining a computerized client data base containing demographic and substance abuse-related information, including client utilization of health, social services, and treatment programs; (2) surveying

clients' beliefs and attitudes about intervention strategies; and (3) evaluating provider workshops and seminars. Outcome measures will consist of assessment of change in the number of women and infants receiving services, services available to clients, successful referrals completed by clients, and changes in birth outcomes.

EXPERIENCE TO DATE: This 5-year demonstration project has been fully operational for 2 years. It provides case management services to 75 new pregnant women each year and followup to the women and their infants for 2 years. Thus far, good birth outcomes (including Apgar scores, gestational age at birth, and birthweight) have been achieved by 85 percent of the clients. The project monitors the health care compliance of pregnant and postpartum women and their infants. Generally, approximately 85 percent of women and infants participating in the project have been compliant with health care.

The former project evaluator conducted a perinatal prevalence study involving women who delivered at both city hospitals (St. Mary's Hospital and Waterbury Hospital). This study included an anonymous questionnaire administered to women on the postpartum unit who were willing to be interviewed by the evaluation staff.

Project staff developed a comprehensive directory for clients to encourage their empowerment and self-sufficiency. Additionally, the project coordinator and staff worked with the evaluator in developing the following forms: Data base record, which includes the client intake form; services summary form; client tracking tool and the health data form; citywide prevalence study including an anonymous questionnaire; provider survey form; and conference evaluation forms.

The project has convened 3 community provider conferences each year, reaching more than 100 professionals and community staff at each conference. The formal feedback from conference attendees on the evaluation forms has been overwhelmingly positive.

***Cuidate Mujer:* Prevention and Treatment of Substance Abuse Among High-Risk Hispanic Women in Hartford, Connecticut**

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CSAP/MCHB
SP-02047
09/30/91–07/31/96
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PROBLEM: Substance abuse during pregnancy represents a major threat to both women and their infants. Medical complications, including anemia, cardiac disease, cellulitis, edema, hepatitis, phlebitis, pneumonia, cystitis, urethritis, and pyelonephritis, are seen in nearly 50 percent of pregnant drug-dependent women. Major effects on the fetus include intrauterine death, overwhelming infection, chorioamnionitis, premature rupture of the membranes, poor fetal growth, and low birthweight with associated complications. Infants born to drug-abusing parents are at increased risk for physical abuse and neglect, learning disabilities, and behavioral problems. There is clear evidence that drug use during pregnancy is a widespread and growing problem in Hartford, especially among Hispanic women. Current estimates by substance abuse treatment counselors and neighborhood prenatal care providers indicate that, depending on the neighborhood, 7–50 percent of pregnant women in Hartford use teratogenic mind-altering substances. A recent study of 51 mothers of low birthweight babies who were Hartford Hospital OB/GYN clinic patients found that 65 percent reported substance use during pregnancy; 25 percent of the women in this sample reported use of cocaine, heroin, and marijuana. Among the 1,800 women at risk who have participated in the Hartford Action Plan on Infant Health's Preterm Birth Prevention Project, 20 percent report substance abuse. Of the 150 women who delivered babies at the Charter Oak Clinic in 1988, 42 percent reported use of cocaine or heroin during pregnancy; 80 percent of these women were IV drug users or the sexual partners of IV drug users. Of babies born in the clinic in January 1990, half were under 3.5 pounds, largely due to maternal cocaine use. Finally, a recent report by the city of Hartford indicates that 20 percent of women seeking prenatal care in community-based clinics are chemically dependent, 40 percent of low-income pregnant women are drug users, and 57 percent of the AIDS population in Hartford are IV drug users. To date, there are no comprehensive prevention or treatment initiatives specifically geared to the social, cultural, and logistical needs of substance-using Hispanic women of childbearing age in Hartford.

GOALS AND OBJECTIVES: *Cuidate Mujer* has identified the following goals and related objectives:

Goal 1: Increase the availability and accessibility of prevention, early intervention, and treatment services for pregnant and postpartum Latina women of childbearing age.

Objectives:

a. Establish a culture/gender-appropriate environment which can offer program participants increased access to services and foster their willingness to seek help and disclose intimate information.

b. Through casefinding and outreach by bilingual, bicultural community-based outreach workers, establish a presence in the community and identify 55 women in year 1 and 40 women per year in years 2–4 (20 new participants and 20 carried over from the prior year) who are either pregnant, postpartum, or of childbearing age and who are currently substance users/abusers or at high risk for becoming users/abusers.

c. Integrate substance abuse treatment with other health and social services by facilitating linkages between these services and the needs of the women participating in the project.

Goal 2: Decrease the incidence and prevalence of drug and alcohol use among pregnant and postpartum women.

Objectives:

a. Initiate a comprehensive program that includes three new culture/gender-appropriate support groups for women (at different stages of involvement with drugs) which are oriented toward prevention/education, ambulatory treatment, and followup, respectively. The three groups will provide services to an estimated 40 Latina substance-using women each year who are either pregnant, postpartum, or of childbearing age, and 15 women per year who are at risk for substance use and abuse.

b. Through their involvement in case management procedures and one or more of the support groups offered by the project, participants will report higher levels of self-esteem and greater mastery over their environment.

c. Facilitate the establishment of a bilingual/bicultural community-centered ambulatory program that will offer direct treatment services to approximately 25 substance-involved women annually.

Cuídate Mujer, translated "Women Take Care," is an approach that is both culture- and gender-appropriate for Hispanic women and grounded in current knowledge about successful prevention and treatment for low-income Hispanic women involved in substance use and abuse. The program grows out of 10 years of work by the Hispanic Health Council in the area of community health prevention and intervention, particularly with Hispanic women and children in crisis. It is rooted in the philosophy and approach of the World Health Organization and other international and domestic organizations emphasizing the participation of community members—particularly women—in health problem-solving and prevention strategies. Similarly, it draws on the rich teachings and experiences of Brazilian educator Paulo Freire, stressing the importance of personal experience as a basis for knowledge and as a beginning point for enabling historically subordinated communities to effect social change. Finally, the program assumes that, due to the complexity of factors contributing to chemical use and dependency for poor Hispanic women, the nature of an effective prevention and intervention project must be flexible, varied, and sensitive to the cultural and social context of these women's lives.

METHODOLOGY: Combining casefinding and case management with prevention education, followup, and a culturally appropriate approach for the treatment of Hispanics, the program will offer direct services, education, outreach, and followup for up to 300 Hispanic women who are at risk for controlled substance involvement or already addicted to chemical substances. Specifically, the program will offer casefinding and outreach for high-risk and substance-using pregnant and postpartum women and women of childbearing age, and offer a flexible treatment plan that involves participation in one or more of the following three alternatives:

1. A 1-year treatment program in the Hartford Hospital, which also offers child care and transportation. The planned program is a 6-week effort divided into three phases: Assessment stabilization (1–3 weeks), initial recovery (6–8 weeks), and stable abstinence, including group therapy, psychoeducation, family intervention, and child development consultations. Participants also have access to HIV testing and counseling. Each participant has a "patient care team," a multidisciplinary team consisting of an obstetrician, pediatrician, child psychiatrist, social work supervisor, coordinator of substance abuse services, case managers, and outreach workers. *Cuídate Mujer* staff have participated in planning these services, and will be trained by Hartford Hospital staff in the methods and approach being used in the program.
2. Coordinated referral to existing outpatient treatment programs in the Hartford area combined with a weekly *Cuídate Mujer* treatment group.
3. Participation in *Mujeres* Anonymous, (Women Anonymous), a treatment group (especially for cocaine-addicted women) adapted from the 12-step model specifically to meet the needs of Hispanic women. Treatment services for all participating women will be combined with intensive case management, supportive advocacy, crisis intervention, psychotherapeutic counseling, and other critical health/social services necessary for recovery and resuming a drug-free lifestyle. All participants will also be encouraged to participate in a special weekly followup support group known as *Nuevos Pasos* (New Steps).

A prevention component for high-risk pregnant Hispanic women at risk for alcohol and other drug use will be available. Meeting weekly in 15-week cycles, the *Cuídate Mujer* Prevention Group will emphasize self-esteem, communication, and gender/cultural identity as a way to enhance the women's view of themselves.

Cuídate Mujer will work with all of the health clinics, hospitals, drug treatment centers, and other facilities engaged in human services in Hartford for client outreach, identification, treatment referral, and crisis intervention, as well as transition to independent living (e.g., job training, English as a Second Language, and GED programs). Two case managers/outreach workers will identify and work with all participants, offering supportive services, ensuring treatment referral, and assisting with logistical matters such as child care, medical appointments, and translation needs. The project coordinator and assistant coordinator will facilitate each of the treatment and support groups and develop curriculum materials required for each group. A comprehensive tracking system for all participants will be managed by the project coordinator and assistant coordinator.

EVALUATION: The evaluation plan for *Cuídate Mujer* is based on strategies developed for the Support Group Training Project and emphasizes three intersecting evaluation methods: Self-report evaluation by participants, independent report by evaluators, and quantified process and outcome measures. The primary advantage of this multifaceted approach is that the perspectives of all involved in the program are represented. This balance of perspectives facilitates continual reevaluation and refinement by giving everyone a voice in the process of problem solving and improving the program. With collective responsibility for gathering and evaluating the data, staff see problems as shared and solutions as their own rather than being externally imposed. In the second year and beyond, representatives from among the women being served will also be important participants in this reevaluation, refinement process. This balance of participant self-reports, evaluator observations, and quantitative measures will guide process adjustments during the project's lifespan. The evaluation is structured to assess the attainment of project objectives primarily through process evaluation methods. The outcome evaluation focuses on the overall program goal of reducing substance exposure of mothers and their infants as well as documenting other outcomes observed for program participants.

The evaluation team has formulated a theoretical perspective for the evaluation plan, drawing together the program's components graphically in terms of a path model. The path model demonstrates the theoretical links between the independent variables, the project's intended interventions, and the dependent variables, thus offering possible explanations for the expected effectiveness of the program. Based fundamentally on the variables defined in the path model and the logic model, and using a combination of standardized measures augmented by including certain culture- and gender-sensitive variables, a comprehensive intake and assessment survey is being formulated. The standardized measures include: Addiction Severity Index (ASI), Alcohol Dependence Scale (ADS), Modified CES-D depression scale, Perlin and Schooler Locus of Control measure, and the Rosenberg Self-Esteem Scale. The survey is designed to collect information about the client's background and provide measures for the client's substance use, involvement in the criminal justice system, general mental health, depression and emotional health, and kind and degree of social support. A comprehensive data base designed according to the form and content of the intake survey is being developed.

EXPERIENCE TO DATE:

1. An essential feature of the *Cuídate Mujer* treatment component is the *Mujeres* Anonymous (Women Anonymous) treatment support group offered to participants. Drawing on the 12-step model, this support group has been adapted to meet the cultural, social, and linguistic needs of Latina women, and offers an essential form of support so that they can sustain treatment.
2. A total of 30 women are presently enrolled in the group. The recruitment for the prevention support group has started to initiate a new cycle of 15 weeks.
3. Planning and implementing a comprehensive treatment component that includes offering direct treatment services for project participants has received major emphasis during the last 6 months. The project has successfully designed a 3-hour per day, 4-day per week outpatient treatment program together with the Social Service Chemical Dependency Department of Hartford Hospital.

4. Another new and critical feature of the *Cuídate Mujer* treatment component is the integration of psychotherapeutic counseling services with drug treatment for project participants in an effort to address the wider issues affecting the woman and her family. The project has jointly developed a specialized Latino mental health program together with the Hartford Community Mental Health Center where women, children, and families in *Cuídate Mujer* and other Hispanic Health Council projects can obtain counseling. Directed by a licensed psychotherapist, this program has in place a part-time bilingual/bicultural therapist who offers individual, group, and family counseling.

Women's Corner
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CSAP/MCHB
SP-01590
02/01/90–01/31/95
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PROBLEM: New Haven's drug problems have increased considerably, as attested to by 1988's record drug-related homicide rate. The Hill Health Center's obstetric staff report that about half of the nearly 700 prenatal patients in 1988 were substance users. Most of its more than 200 cases of HIV infection are the result of IV drug use and sexual transmission by infected drug users. Cocaine/crack, heroin, and alcohol dependence is impacting larger numbers of women and children in our community.

Unfortunately, there are virtually no drug/alcohol services in the area which give priority to pregnant women seeking treatment. Women living in the neighborhoods hardest hit by poverty (New Haven is the seventh poorest city in the United States), infant mortality (New Haven has the highest rate in the United States in cities of 100,000 or more), and drugs/criminal behavior can find a safe haven within their community at the Women's Corner.

GOALS AND OBJECTIVES: The major goals of the Women's Corner, a drop-in center, are to reduce the incidence of drug and alcohol use among pregnant and postpartum women, thereby impacting on infan: mortality; increase women's knowledge of the effects of substance use on pregnancy; and increase drug/alcohol services for women and their children in our community. Specific objectives are to:

1. Provide outpatient substance abuse assessment, referral, and counseling to 120 pregnant women annually;
2. Conduct didactic groups in parenting, prenatal development, nutrition, drug and alcohol effects, cycle of addiction, and relapse prevention, and provide the site for bilingual 12-step meetings for women and their children;
3. Coordinate prenatal, postpartum, pediatric, and early intervention care through the Hill Health Center; and
4. Advocate through community action organizations on behalf of women's needs.

METHODOLOGY: The Women's Corner is open Monday through Friday, 8:30 a.m. to 5:00 p.m. Women are encouraged to bring their children to participate in our early childhood development program. Lunch will be provided 5 days per week to women and their children, and supplemental groceries will be distributed to participants on Fridays for the weekend. Direct nutrition services and classes focusing on nutrition, food preparation, purchasing/budgeting, and community resource education will be conducted weekly.

Group therapy (bilingual) and didactic drug/alcohol education groups will be conducted weekly to assist women with issues of self-esteem, self-image, sobriety, and relapse prevention.

Parenting classes, early childhood development, bonding skills workshops, and recreational skills development sessions are conducted weekly to assist women in managing their roles as mothers and enhancing their children's well-being.

EVALUATION: The evaluation is being conducted by an outside consultant. The evaluation includes Addiction Severity Index (ASI) modification and will be conducted at 6-month intervals over a period of 2

years. Toxicological results will be included to assess patterns of use. A process evaluation will be included at the conclusion of the 5-year demonstration period.

A study of the Women's Corner women will also be conducted, correlating types of services, frequency, and length of time with delivery outcomes and sobriety.

EXPERIENCE TO DATE: The Women's Corner is fully staffed and open Monday through Friday. Our newly renovated home is at 393 Columbus Avenue (street address). More than 120 women have received services, and 84 infants, toddlers, and children have also received services.

Delaware Diamond Deliveries
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CSAP/MCHB
SP-01160
02/01/90–01/31/95
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PROBLEM: The Medical Center of Delaware, Delaware's only tertiary hospital, delivers more than half of all newborns in the State each year. In 1988, the center conducted blind urine screens on 385 pregnant women; 96 of these women (25 percent) tested positive for drugs. Medical Center officials alerted the Department of Health and Social Services, knowing that this growing problem would negatively affect Delaware's campaign to reduce infant mortality and morbidity. The Division of Alcoholism, Substance Abuse, and Mental Health was striving to increase the number and improve the quality of programs to substance-abusing women. Existing programs, especially for pregnant women, were found to be woefully lacking.

Through the efforts of the Department of Health and Social Services, the Division of Alcoholism, Drug Abuse, and Mental Health joined forces with the Division of Public Health and the Medical Center of Delaware to develop a family-centered prenatal care program for substance-abusing pregnant women. The Delaware Diamond Deliveries program was created by a consortium of public and private agencies in response to a request by the Center for Substance Abuse Prevention, U.S. Department of Health and Human Services, for model projects for pregnant and postpartum women and their families.

GOALS AND OBJECTIVES: The project goals are to:

1. Promote the involvement and coordinated participation of multiple organizations in the development of comprehensive services for substance-using pregnant and postpartum women and their infants;
2. Decrease the incidence and prevalence of drug and alcohol use among pregnant and postpartum women;
3. Improve birth outcomes of women who used alcohol and other drugs during pregnancy, and decrease the incidence of infants affected by maternal substance use; and
4. Reduce the severity of impairment among children born to substance-using women.

The project has identified the following objectives:

1. Following determination of the number of perinatal programs and/or services in New Castle and surrounding counties, increase by 50 percent the number of integrated and coordinated programs serving perinatal substance abuse populations by maintaining a viable consortium that can influence development of new grants, programs, and funding sources, as well as promote coordinated countywide programmatic interventions and consultation during the project period;
2. Following establishment of baseline data on substance use, reduce substance use during pregnancy by 85 percent during the project period for the 200 referred substance-using pregnant women by providing multifaceted services;
3. For the duration of the project, improve selected birth outcomes by 25 percent for a maximum of 170 infants born to substance-using project participants by coordinating comprehensive prenatal services (compared to a sample of substance-users who are not participating in the program); and
4. For the duration of the project, improve by 10 percent the physical, cognitive, speech/language, and behavior functioning of 30 infants born to women in the Delaware Diamond Deliveries Program who receive comprehensive case management, parenting education, and referrals and are followed to age 3.

METHODOLOGY: An evening prenatal clinic (4:00 p.m. to 8:00 p.m.) for drug-abusing women was established in July 1990 at Wilmington Hospital. Patients and their families are seen weekly or biweekly.

Services offered at the clinic and in the community include:

1. Comprehensive prenatal care, including board-certified obstetrics, nursing, nutrition, social work, outreach, Special Supplemental Food Program for Women, Infants and Children (WIC), and Medicaid assistance services;
2. Drug and alcohol counseling;
3. Vocational testing/counseling and training;
4. Onsite child care;
5. Transportation;
6. Family meal at the hospital cafeteria during the prenatal clinic;
7. Case management and home visits during the week;
8. Fast-paced patient education program in a game show format;
9. Incentives, such as a baby shower, for achieving agreed upon patient goals;
10. Infant followup by a speech/language pathologist, with parenting and communication information and instructions, based on results of the Brazelton Neonatal Behavioral Assessment Scale; and
11. Communications quarterly with 32 public and private programs and agencies via the Diamonds in the Rough Consortium.

EVALUATION: An overall evaluation plan was developed by a consultant during the first year of the project; she will consult with the project during years 2–4 and will actively participate in the final project evaluation during year 5. Major evaluation activities for years 2–4 are being conducted by project and department/division personnel and by a contractor, Dr. James Davis, from the University of Delaware.

Process evaluation includes extensive data collection on case management, educational programs, interventions utilized by each patient and family, and activity with a drug counseling agency and vocational counselor for up to 2 years postpartum. Using a posttest-only comparative group design, participating pregnant substance-using women will be compared to a matched group of nonparticipants on average birthweight of infants. Posttest-only group designs are used to compare program participants with normed samples on relevant measures, such as Mother/Infant Communication Screening (MICS), Apgar scores, and the Brazelton Neonatal Behavioral Assessment Scale. For clients entering the project after September 1, 1992, time series measures are completed, using pretest and postproject assessment, with followup at 8 weeks postpartum (and at 1 year postpartum when feasible) on Substance Abuse Subtle Screening Inventory (SASSI). Infant attachment measures are conducted within the first month of life, using a Maternal Infant Communications Scale (MICS).

EXPERIENCE TO DATE: Of the total number of project participants, 92 percent require project-funded transportation to participate in needed services; 100 percent are polydrug users, with cocaine being the drug of choice. Over the 2 years from July 1990 to July 1992, birthweights of the 77 clients have averaged 2,974 grams or approximately 6 lbs 9 oz. Birth outcomes and hospital costs of 38 women and 39 infants born from August 1991 to July 1992 were compared to two groups: Clinic patients, and private patients delivering at the same hospital as project patients. Project and clinic patients were considered at high risk due to substance use; private patients were not known to use substances. There was a statistically significant difference between the birthweights of babies born to Diamond Deliveries and infants born to women in the clinic group. The average birthweight of the 37 Diamond Deliveries babies (excluding one set of twins) was 3,003 grams, which compared very favorably to the average birthweight (2,317 grams) of the babies born to the 37 women in the clinic group. Diamond Deliveries babies were not significantly different in average birthweight from infants of the private practice comparison group (average=3,007 grams), who had no known substance use problems and were not considered to be at high risk. In comparison, 78.4 percent of the project infants were born in the normal birthweight category (>2,500 grams or 5 lbs. 8 oz.), whereas 49.9 percent of

the comparison group babies were low birthweight (<2,500 grams); the difference was statistically significant.

The average cost for hospital maternal care for the Diamond Deliveries group was $3,758, compared to $5,800 for the clinic group, and $4,217 for the private patients. The average hospital cost for Diamond Deliveries' infants ($4,433) was significantly lower than for either the clinic ($36,789) or the private patient ($8,441) comparison groups. The higher costs in the clinic group were attributable to their larger number of very low birthweight babies (<1,500 grams) who had expensive neonatal intensive care unit stays. When costs for very low birthweight babies were excluded from the analysis, the significant difference in costs remained: The hospital care costs averaged $2,256 for Diamond Deliveries babies, $11,151 for the clinic babies, and $4,904 for babies of the private patients.

Early Identification/Treatment/Rehabilitation of Cocaine-Using Women and Children

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CSAP/MCHB
SP-02351
08/01/90–08/31/93
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PROBLEM: The southeast quadrate of the District of Columbia, particularly Anacostia (wards 6, 7, and 8), has been identified as a high-risk region for substance abuse, violence, and crime. The increase in substance abuse among women and men, as well as the drug culture itself and the violence that it perpetuates, particularly in this area, has made many children innocent victims of their chaotic environment. A fragmented health care delivery system exacerbates this already difficult situation. The inability to access services, the lack of child care, and the threat of their children being removed from their mother's care often dissuade substance-using women from seeking treatment, prenatal and postnatal health care, and primary health care for their children. Institutionalized barriers to treatment (such as denial of Medicaid) remain a major hurdle to successfully bringing male partners into the program.

GOALS AND OBJECTIVES: The District of Columbia Institute of Mental Health's Center for Family Health is a comprehensive substance and alcohol abuse treatment program for substance-using pregnant and postpartum women and their drug-exposed children living in wards 6, 7, and 8 of the District. To address their complex needs, the center has adopted a philosophy encompassing six major goals:

1. Reduce the severity of impairment among children born to substance-using women;
2. Decrease the incidence and prevalence of drug and alcohol use among pregnant and postpartum women;
3. Enhance the possibility of drug-free lifestyles among the target population;
4. Strengthen core, extended, and foster families through a range of interventions and support services;
5. Promote the involvement and coordinated participation of multiple organizations in the delivery of comprehensive services for substance-using pregnant and postpartum women and their children; and
6. Reduce the unnecessary costly acute hospitalization and recidivism associated with the use of crack cocaine.

METHODOLOGY: The Center for Family Health operates under the auspices of the District of Columbia Institute for Mental Health, a nonprofit, community-based mental health organization. Our program attempts to balance patient-oriented services with family systems-oriented services. This approach allows us to focus on the needs of the individual as well as to work to develop and strengthen the functioning level of the family unit. Individualized comprehensive treatment plans and individualized family service plans are developed and implemented to aid patients to become drug free, as well as to promote independence, self-esteem, growth, and success. The program consists of two major components: The Children Services Division and the Adult/Family Services Division.

The Children Services Division serves infants, children, and adolescents from birth to 18 years of age who are affected by parental substance abuse, either prenatally or environmentally. Treatment programs in early intervention (ages 0–3) and extended therapy (ages 3–5, 6–12, and 13–18) incorporate a diversity of therapeutic intervention and learning experiences designed to develop psychosocial, emotional, language, cognitive, creative, and motor abilities, as well as self-help skills, and to facilitate the transition from

childhood to adulthood. Services provided include developmental and behavioral assessments, the Early Intervention Day Treatment Program, and the Extended Therapy After-school Program.

The Adult/Family Services Division provides opportunities for substance-using parents and family members to become drug free and maintain drug-free lifestyles. Services include comprehensive assessment, substance and alcohol abuse education and recovery; medical detoxification; outpatient rehabilitation and counseling; outreach/engagement, often using in-home visitation; case management; life management skills; individual, group, and family mental health services; and primary health care. In addition, we provide services to drug-free caregivers and surrogate families to enhance, maintain, educate, and provide a healthy environment for children and family members.

Services are provided by a multidisciplinary team of substance abuse, mental health, and health care professionals, as well as through multiagency agreements with area providers. It is the center's aim to empower every family served with the skills necessary to become capable, productive, and independent members of the community.

EVALUATION: The goal of the program evaluation is to develop and implement a multiyear outcome evaluation plan in the following four areas:

1. Process evaluation: We will examine system functioning and program operational efficiencies by collecting and analyzing data on program content, comprehensiveness, continuity, and coordination. These data will aid in monitoring program performance and goal attainment.
2. Systems level outcomes: We will document and assess overall benefits, including better coordination and improvements in health and mental health system performance as a result of the development and existence of the center's multiple services and programs.
3. Patient and family level outcomes: We will document and assess improvements in specific patient and family outcomes, using goal attainment scales obtained from staff-patient interactions, treatment planning including patient goal setting, and the use of standardized instruments to demonstrate positive changes in patient and family outcomes.
4. Costs of care: We will document and assess improvements and/or reductions in the costs of caring for the center's patients before and after admission into the program.

EXPERIENCE TO DATE: Currently, the center has 30 employees and consultants (both full time and part time), including an administrative staff of 6 people. By January 1992, the entire program was located on the fourth floor of the Anacostia Professional Building at 2041 Martin Luther King Jr. Avenue, S.E. As of January 2, 1992, we exceeded our targeted number of patients. Currently, a total of 87 clients participate in the program: 47 patients, 21 collaterals, and 19 participants in the application phase.

Primary Patients:	47
Infants and Children, 0–5 years:	19
Children and Youth, 6–12 years:	15
Adolescents, 13–18 years:	1
Adults:	12
Collaterals:	21
Infants and Children, 0–5 years:	3
Children and Youth, 6–12 years:	3
Adolescents: 13–18 years:	1
Adults:	14
In Application Phase:	19

The center has obtained all required licensure and certification to operate full scale. Staff continue to receive monthly training on a variety of patient-related topics, such as drug and alcohol abuse, confidentiality, child abuse and neglect, first aid, and fire and safety.

We are already seeing the impact of this family-centered program on the effectiveness of early intervention strategies with children who have significant impairments. It is one of the few programs in the District of Columbia to work jointly with the child and the parent/family. We were able to mainstream several of the children in the program into the D.C. Public School System. Where additional specialized training is indicated for children who complete our early intervention program, a linkage to the public school system through Project Daisy has been established to identify appropriate placement sites for the children.

Pregnant and Postpartum Women and Their Infants

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CSAP/MCHB
SP-01591
02/01/90–01/31/95
Project Director(s):
Maude R. Holt, M.B.A., M.H.A.
John Bland, M.S.W.

PROBLEM: The District of Columbia represents one of the major cities in the United States with alarming drug problems and associated risk factors such as homicide and violence, low birthweight, high infant mortality, acquired immune deficiency syndrome (AIDS), sexually transmitted diseases and their sequelae, and arrays of various social and health problems. The populations at greatest risk for the drug problem are those mothers of childbearing age and their infants who are from the lower socioeconomic strata in the city. The rippling effect of substance abuse and other teratogen use by pregnant women results not only in poor pregnancy outcomes but also in equally devastating postpartum consequences to the mothers, the infants, and society's infrastructure at large.

GOALS AND OBJECTIVES: The goal of this project is to significantly reduce the morbidity and mortality among pregnant and postpartum women who abuse drugs and to reduce the concomitant effects on their infants. This goal will be attained by aggressively identifying a minimum of 500 at-risk women and admitting and retaining them in the District's drug treatment programs using an integrated systems approach. The objectives for the funding period are to:

1. Provide training to staff;
2. Extend outreach services to affected population groups;
3. Admit and recruit clients to drug treatment;
4. Provide outpatient drug treatment;
5. Provide an effective case management system; and
6. Develop and coordinate aftercare programs.

METHODOLOGY: The methodology for attaining the project goal and objectives will reflect the most acceptable findings from the literature and proven treatment modalities which will easily blend into the socioeconomic setting of the target population. The aim of this approach is to make drug treatment and health care accessible to at least 500 clients through the establishment of linkages with appropriate agencies to assure continuity of services and care. In addition to the inpatient program, outpatient services will be well coordinated to assure integrated drug treatment and primary care, including the identification of risk factors for drug abuse through the case management protocols. Under the leadership of the Alcohol and Drug Abuse Services Administration (ADASA), the project manager will coordinate assessment, referral, outreach, and treatment services for all pregnant substance abusers presenting to the ADASA intake program.

EVALUATION: The evaluation of the efficacy of this project will be conducted in accordance with process and outcome objectives. The process evaluation will include data collection on the client population and services provided to individual clients. The outcome evaluation, on the other hand, will include research design in which the outcome of the project will be measured by reduced substance abuse among pregnant and postpartum women and improved pregnancy outcomes among program participants.

EXPERIENCE TO DATE: During its third year (February 1, 1992, to January 31, 1993), the project devoted its efforts to treatment. There were 186 admissions during this period. Casefinding and admission to detoxification were the responsibility of Women Services Center, the outpatient component of the program. The project's residential component and outpatient component have developed a good working relationship. A new physician has been assigned to screen all admissions and discharges, and this has been another positive development. ADASA, the parent agency, has taken major responsibility for facilitating changes, including assuming the principal investigator responsibilities, facilitating the evaluation contract, providing a consultant to analyze systemic problems, and providing consistent support for the project director in a variety of matters.

Our experience has clearly determined that 28 days is not enough time for most of the residents to stabilize and begin to make important strides in their recovery process. The length of stay is being extended selectively to 6 weeks.

Project SUPPORT
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CSAP/MCHB
SP-03000
09/02/92–05/31/97
Project Director(s):
Renee Williams-Thomas, M.S.W

PROBLEM: The effects of cocaine use during pregnancy on infants exposed to this drug in utero are a matter or growing concern. Problematic outcomes most consistently reported by published research in this area are that newborns exposed to cocaine in utero demonstrate reduced birthweight, birth length, and head circumference, and a greater incidence of preterm delivery (e.g., Chouteau et al., 1988; Little et al., 1989; MacGregor et al., 1985; Chasnoff et al., 1985; Keith et al., 1989; Neerhoff et al., 1989). While abruptio placentae has been reported (Acker et al., 1983, Keith et al., 1989), other studies have not found this condition to be correlated with maternal cocaine abuse (Chouteau et al., 1988; Little et al., 1989).

Abnormal neurological behavior has also been reported for these newborns (Chasnoff et al., 1985; Doberczakn, 1988). A variety of congenital anomalies also have been reported (Little et al., 1989; Chaez et al., 1989), but there has not been consistency in these findings. Similarly, while findings of Black et al. (1986) suggested an increased incidence of the sudden infant death syndrome (SIDS), and Chasnoff et al. (1989b) reported respiratory pattern abnormalities among these infants, neither Chasnoff et al. (1989b) nor Bauchner et al. (1988) found an increased incidence of SIDS among infants exposed to cocaine prenatally.

In addition to its effects on the infant, cocaine use during pregnancy has been associated with poor nutrition (Imiazumi, 1990) and with complications during pregnancy such as antenatal hospitalization, anemia, chorioamnionitis, and premature rupture of membranes (Keith et al., 1989).

The impact of maternal drug use after the birth of an infant is also a matter of concern. Case studies have reported infant intoxication due to use of cocaine by a breastfeeding mother (Chasnoff et al., 1987), neurologic symptoms and seizures in infants and toddlers after passive inhalation of vaporized crack or ingestion of cocaine (Bateman and Heagarty, 1989; Ernst et al., 1989), and fatal child abuse associated with parental use of crack (Press, 1988). It has also been suggested that the surge in the number of children reported to have died of abuse and neglect is linked to crack cocaine. Leslie Mitchell, senior research analyst for the National Committee for the Prevention of Child Abuse, recently reported that "anywhere from 50 to 90 percent of the cases [of recently reported child abuse] involve substance abuse and much of that is crack cocaine" (*New York Times*, March 17, 1990).

The District of Columbia is plagued with one of the highest infant mortality rates in the Nation. In 1989, there were 11,567 births in the District of Columbia. This represents a 25 percent increase over births in 1980. The percent of infants weighing less than 2,500 grams increased from 13.1 percent in 1980 to 16.1 percent in 1989. In 1987, the national infant mortality rate was 10.4 per 1,000 live births, while it soared to 19.6 per 1,000 in the District.

The problem is even more severe among African Americans in the District, who had an infant mortality rate of 21.1 percent during that same year. In 1989, the District's infant mortality rate rose to 23.1 percent. It is estimated that approximately 72 percent of these deaths were associated with low birthweight, which has been closely linked to cocaine abuse during pregnancy, as described above. As the epidemic of crack abuse has flourished in the District, so has the infant mortality rate increased for this high-risk group. The need for Project SUPPORT and others like it is exceedingly great at this time.

GOALS AND OBJECTIVES: The goals of the proposed project are consistent with those of the Model Projects for Pregnant and Postpartum Women and Their Infants Program of the Center for Substance Abuse Prevention and the Maternal and Child Health Bureau. Project SUPPORT's overall goals are to:

1. Promote and coordinate the involvement of multiple organizations in the delivery of comprehensive services for cocaine-abusing pregnant and postpartum women and their infants;
2. Increase the availability and accessibility of prevention, early intervention, and treatment services for these populations;
3. Decrease the incidence and prevalence of drug and alcohol use among pregnant and postpartum women;
4. Improve the birth outcomes of women who used alcohol and cocaine during pregnancy, and decrease the incidence of infants affected by maternal substance use; and
5. Reduce the severity of impairment among children born to cocaine-abusi .g women.

To reach these goals, the specific aims and objectives of the project are to:

1. Establish a program of case management services for cocaine-abusing pregnant and postpartum women and their infants. To promote and coordinate the involvement of multiple organizations in delivering comprehensive services for this population, a case management team will be directly involved with each of the women referred to Project SUPPORT from other projects. The case management team will focus specifically on the needs of cocaine-abusing women and will provide assessment, referral, followup, and support services for them.
2. Link case management services directly to a cocaine treatment program. To provide immediate access to a primary drug treatment site appropriate for the treatment of cocaine-abusing pregnant and postpartum women, primary services will be offered through the Cocaine Abuse Treatment Strategies (CATS), a unique outpatient substance abuse treatment research study funded by the National Institute of Drug Abuse. Referrals will also be made, as needed, to other drug treatment programs such as inpatient programs.
3. Provide child care services onsite at the drug treatment program. To facilitate full participation in the treatment program, child care services will be made available to all participants in Project SUPPORT for their infants and young children. Appropriate space will be provided child care services at the facility, which will be staffed by a child care specialist and carefully selected and trained volunteers.
4. Provide transportation needed by cocaine-abusing pregnant and postpartum women to access required services. To reduce barriers which prevent cocaine-abusing pregnant and postpartum women enrolled in another Koba program (For Your Baby's Sake) from using drug abuse treatment, prenatal care, and other needed services, Project SUPPORT will provide transportation and/or increase their access to other transportation services in the community.
5. Develop and conduct a series of educational workshops on maternal and child health and other aspects of daily living as they relate to cocaine-abusing pregnant and postpartum women. To provide pregnant and postpartum women with essential information on pregnancy, parenting, and successful functioning in the community, Project SUPPORT staff will conduct and/or coordinate workshops on issues such as maternal and child nutrition, fetal growth and development, risk factors in pregnancy, delivery, child development, parenting skills, vocational and educational alternatives, and other topics related to improving the functioning of these women and their infants.
6. Involve the significant others of cocaine-abusing pregnant and postpartum women in case management and educational services. To strengthen the personal support network for participants, efforts will be made to involve male partners, family members, and friends in the substance treatment, prenatal care, and related activities through educational workshops and case management sessions conducted by project staff.

METHODOLOGY: The project will implement the following strategies and activities.

1. Accessing the population: Koba currently manages a number of projects that provide services to the population to be served by Project SUPPORT, including Spectrum, ADAPT Clinic, and SECTOR projects. Women who are suspected of using drugs and who may be pregnant will be referred to Project

SUPPORT. Potential clients will be recruited by Koba's outreach programs using a variety of methods including door-to-door canvassing, street canvassing, and raffle contests, as appropriate. We anticipate that these projects will have access to and refer the majority of cocaine-abusing pregnant and postpartum women and their infants to be served by Project SUPPORT. Others will be identified through Project SUPPORT's own outreach efforts (i.e., poster displays, grocery store outreach, and community presentations). Additionally, linkages will be developed with other drug treatment clinics and agencies and community-based organizations serving this group of women. At the time of referral, a case management team will conduct an intensive assessment to determine client eligibility and needed services.

Referral arrangements will be developed with Spectrum, SECTOR, ADAPT, and other referring agencies. One staff member from each project will be responsible for referring a potential client to Project SUPPORT and ensuring that the appointment is kept. At the appointment, a screening intake form will be completed by a case manager. Because Koba manages the projects that will be referring clients, these arrangements can be implemented with relative ease. Transportation to Project SUPPORT and child care assistance will be offered to clients if needed. When feasible, the staff member initiating the client referral will make a followup phone call to the client on the day of the appointment

2. Case management services: Project SUPPORT's case management services will ensure that the needs of participants receive a comprehensive evaluation and that women are linked with the services they require. The case management team will serve as both a mechanism for coordinating and monitoring services and a means of supporting participants as they attempt to address their needs. The following activities will be implemented as part of case management services.

   a. Assessment and orientation. A careful assessment of each participant' s needs and level of functioning will serve as the foundation of all Project SUPPORT interaction with the client. During the initial appointment with the case manager, a final determination of a woman's eligibility for the program and a comprehensive assessment of her service needs will be made through the administration of the screening intake form.

   b. Development of a service plan and followup protocol. Based on the information elicited by the screening form and needs assessment and during initial discussions with the participant, the case manager will develop (with input from the participant) a service plan and followup protocol for the client. The service plan will be structured to meet individual requirements and will be scheduled to accommodate the participant's status at admission and her prioritized needs.

   c. Referral and monitoring. Initially, the case manager will make direct referrals to specific service providers, including determining eligibility and setting up appointments for participants. The case manager will gradually shift responsibility for determining eligibility and making appointments to the participants themselves to ensure that these women have developed skills and confidence to allow them to use services independently when their involvement in the program ends.

      As linkages with needed services are established, the case management team will monitor the participants' progress through all elements of the service plan. This will include individual sessions with the participant and case manager and regular telephone contacts with the service providers to which the participant has been referred. Participants and their infants will be monitored through the child's first 2 years. Home visits will be made when necessary. All service referrals will be documented. We anticipate that a modification of the "Records of Needs and Plans" developed by the Better Babies Project, a District-based outreach and prenatal education program that targets high-risk pregnant women, will be used to monitor participants' needs and plans. A modification of that project's activity form will be used to document services provided participants.

3. Drug treatment services: SECTOR, a cocaine treatment research demonstration study funded by the National Institute on Drug Abuse and managed by Koba, compares various combinations of individual and group counseling methods with a heavy emphasis on relapse prevention.

   The project is comprised of three treatment conditions to which clients are randomly assigned. All of the conditions focus on relapse prevention, and the treatment is provided by highly trained professionals at the master's and doctoral level. The first treatment condition is an intensive individual program in which the client has weekly sessions with a psychologist, family therapist, and a vocational rehabilitation specialist. The second treatment condition is an intensive, structured, psychoeducational-experimental group treatment program that meets 5 days a week for 2 hours a day. The third condition

consists of two intensive group counseling sessions a week and one individual counseling session a month. All of the treatment conditions offer quality drug treatment services by qualified professional staff and are appropriate for the treatment of pregnant and postpartum women.

The length of the treatment program will average approximately 4 months. No medications will be prescribed. The SECTOR program uses the following strategies for treatment: Drug counseling groups, psychoeducational counseling (including self-assessment, goal attainment, drug education, AIDS education, and life skills), individual psychotherapy, family therapy, random urine screening, relapse prevention, vocational education and referral, and referral to community-based, self-help support groups.

Project SUPPORT participants will also be assigned to either a 3-month aftercare condition which consists of two relapse prevention group counseling sessions per week or they will be referred to other aftercare services as needed. Again, all clients will be encouraged to continue to participate in Narcotics Anonymous, Alcoholics Anonymous, or self-help programs.

4. Transportation: A 15-passenger van will be used to transport participants to cocaine abuse treatment sessions; prenatal, pediatric, medical, dental, and postpartum care; and other service providers. The van will be used only for activities related to Project SUPPORT participants. To ensure that transportation services are used most effectively, attempts will be made to schedule appointments so that passenger pick-up of clients in particular wards can be coordinated. Further, as indicated above, we anticipate that the case manager will occasionally accompany the women to various appointments. When feasible and appropriate, staff will use travel time as an opportunity to initiate discussion among participants on issues pertaining to health; pregnancy, and parenting.
5. Educational workshops: Development and implementation of educational workshops on maternal and child health relative to the pregnant cocaine abuser is another specific aim of Project SUPPORT. A series of monthly workshops will be developed, coordinated, and conducted by project staff. Additionally, invited experts from the community will be requested to lead selected workshops. While we anticipate that each workshop will include at least a brief informational presentation, the workshop formats will emphasize audiovisual presentations, role playing, and discussion. While covering topics normally addressed in childbirth and parenting education programs, the workshops will provide an opportunity to tailor discussions of these topics to the needs of cocaine abusers. In addition, the workshops will provide an opportunity for interaction among SUPPORT participants.
6. Involvement of significant others: To strengthen the support system of participants, Project SUPPORT will involve male partners, family members, and friends in workshops and case management sessions. This involvement will be encouraged as an essential part of the helping process.

EVALUATION: Both a process evaluation and an outcome evaluation of Project SUPPORT will be conducted. An evaluation consultant will participate in the development of all procedures, in the collection of outcome data, and in data analysis activities.

1. Process evaluation: Process data will be collected and analyzed on the following components—project staff, project participants, significant others of project participants, and project services.
2. Outcome evaluation: The outcome evaluation is based on a comparison of Addiction Severity Index (ASI) data and data generated by assessment of the Child Rearing Practices and Attitudes Questionnaire at the time of admission and at 6 and 12 months after the birth of the participant's infant. In addition, all of the women who participate in the SECTOR project will receive a comprehensive battery of interview assessments when they enter treatment, 4 months after initiating treatment, and 6 months after completing treatment.

Random urine samples will also be collected and analyzed weekly throughout the treatment process to provide an objective measure of drug use.

In addition, data on the birth status and developmental status of infants of participating clients will be gathered at birth and at 3, 6, 12, 18, and 22 months after the infant's birth. Assessment of infants will be conducted by the Howard University Child Development Center. The following measures have been selected for use because they have been used reliably in previous research with African-American infants and their mothers: Brazelton Neonatal Behavioral Assessment Scale, Bayley Scales of Infant Development, Gessell Developmental Schedules, and the Howard University Developmental Assessment Profile (HUDAP).

The following comparisons will be made:

1. Comparisons of abuse of cocaine, other illicit drugs, and alcohol by Project SUPPORT participants at admission, posttreatment, and at 6 and 12 months by self-assessments after treatment and by urine testing during treatment;
2. Comparisons of participants' educational, vocational, health, social, cognitive, financial, and housing status at admission, posttreatment, and 6 months after treatment of the infants; and
3. Comparisons of participants' infants at birth and at 6 and 12 months of age.

Residential Alcohol and Drug Treatment

New Endeavors by Women
New Expectations
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CSAP/MCHB
SP-02929
03/01/91–02/28/96
Project Director(s):
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PROBLEM: Washington, DC, has one of the highest infant mortality rates in the Nation. The crack epidemic in our community has further complicated efforts to reduce this trend. Resources have been inadequate in terms of efforts to combat the problem of addiction among pregnant substance abusers.

Homeless pregnant substance abusers, in particular, have very few resources available to assist them in their efforts to remain drug free, have a healthy child, and move out of homelessness. With one-third to one-half of women in shelters requiring access to some form of substance abuse treatment, the demand is great. Supply, however, is grossly limited, especially for pregnant homeless women. Without appropriate treatment, the high infant mortality will remain constant and the number of boarder babies left to the care of our hospitals will continue to increase.

GOALS AND OBJECTIVES: The project has three major goals:

1. Increase the availability and accessibility of prevention, early intervention, and treatment services for homeless pregnant substance abusers;
2. Decrease the incidence and prevalence of drug and alcohol use among pregnant and postpartum women; and
3. Improve the birth outcomes of women who used alcohol and drugs during pregnancy.

The project objectives are to:

1. Increase the availability of long-term residential treatment to homeless pregnant/postpartum women and their infants in Washington, DC;
2. Eliminate the use of drugs or alcohol by pregnant/postpartum women residing at New Expectations through treatment services and case management support;
3. Provide a structured, nurturing environment in which women can remain drug free, have healthy children, and move out of homelessness; and
4. Increase knowledge and understanding of effective parenting skills through the maternal and child health program.

METHODOLOGY: New Expectations provides up to seven homeless pregnant substance abusers an opportunity to experience treatment, focus on the delivery of a healthy baby, and make the transition out of homelessness. Each resident is referred from a shelter, social service agency, or hospital.

Upon admission to the residential treatment program, each resident has up to 1 year to make a healthy transition back to independent living. Through the use of a structured treatment program, intensive case management, maternal and child health sessions, self-actualization sessions, and participation in a positive, focused community of recovering women, each resident steadily moves forward. In addition, transitional services are available to her at New Endeavors by Women, the sponsoring organization. These transitional services include structured programs in employment, housing, education, and independent living skills.

When a resident moves into her own living place, she continues to be involved in the program, participating in support groups and helping to lead Narcotics Anonymous meetings for new residents. All services at New Expectations and New Endeavors by Women will remain open to her.

EVALUATION: The effectiveness of the program will be measured through extensive data collection maintained and monitored by New Expectations staff and members of the evaluation team through The Catholic University of America. Process evaluation will examine how the program affected changes in residents' self-esteem, locus of control, understanding and degree of addiction, and demonstration of effective parenting techniques. Pretests and posttests will be used. Evaluation efforts will also measure the extent to which residents have remained drug free, delivered healthy babies, and secured jobs and housing as a result of their involvement in the project. To evaluate birth outcomes, we will use Apgar scores, gestational age, birthweight, and the presence of infant abnormalities.

EXPERIENCE TO DATE: New Expectations accepted its first four residents in July 1991. It is fully staffed with a project director, a substance abuse specialist, a maternal and child health specialist, a facility/food service manager, and evening and weekend managers.

The referral process, forms, and policies have been developed. Relationships have been initiated with other service providers, shelters, treatment facilities, and other agencies. Since accepting its first group of residents, New Expectations has provided services to 23 women and 10 infants. Currently, there are four residents (two who are pregnant and two who have recently delivered). The evaluation process has begun.

Intervention Model for Cocaine-Using Women and Preterms
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SP-03524
09/30/91–08/31/96
Project Director(s):
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PROBLEM: The University of Miami/Jackson Memorial Medical Center (UM/JMMC) has witnessed a tremendous increase in the number of cocaine-exposed neonates. During a 1-week prevalence study of 215 consecutive deliveries in March 1988, a study documented cocaine exposure in 12 percent by urine toxicology and/or maternal history. A clinical protocol at UM/JMMC currently identifies approximately 800 cocaine-exposed infants annually. Among very low birthweight infants (less than 1,500 grams) in the neonatal intensive care unit (NICU), the documented rate of in utero cocaine exposure is approximately 17 percent.

One of cocaine's devastating effects appears to be inducing early labor and uncontrolled delivery. Pregnant cocaine-abusing women may suffer spontaneous abortions or stillbirths. Cocaine has been recognized as a contributing factor in preterm delivery, yet little is known about the effect of cocaine exposure in utero upon the outcome of preterm infants already predisposed to death or long-term disability. Studies involving premature infants have demonstrated a higher than average risk for developmental, medical, and emotional impairment in later life. Consequently, there is even greater need for intervention with preterm cocaine-exposed infants who face both the complications of prematurity and in utero cocaine exposure. Unfortunately, there are insufficient resources to track and serve cocaine-using women and their premature infants. Due to the lack of a case management system, access to services is not facilitated. In addition, these women lack resources for drug abuse rehabilitation, social and vocational rehabilitation, parenting training, developmental services, and comprehensive pediatric medical care or infant day care.

GOALS AND OBJECTIVES: This project has six primary goals:

1. Provide and/or access drug abuse rehabilitation specific to the needs of each postpartum cocaine-using mother delivering a premature infant;
2. Promote maternal-infant bonding and teach parenting skills uniquely suited to the needs of premature cocaine-exposed infants during hospitalization and postdischarge;
3. Assess the neurobehavioral and neurodevelopmental status of premature cocaine-exposed infants to provide intervention strategies for preventing or ameliorating impaired cognitive, psychomotor, special sensory, or behavioral performance;
4. Provide postpartum gynecologic and family planning services to cocaine-using mothers and comprehensive medical and developmental services to their premature infants;
5. Improve coordination of services by providing integrated case management of all components of the model project, including drug abuse rehabilitation, vocational and social rehabilitation, structured maternal-infant interactions, ambulatory medical and developmental examinations, and infant day care; and
6. Enhance compliance with programmatic activities by performing home visits and providing transportation to all programmatic activities.

The project objectives are to:

1. Decrease substance use in project clients through case management and support services;

2. Increase the number of services available for cocaine-using women and their preterm, cocaine-exposed infants;
3. Decrease developmental dysfunction and support optimal development;
4. Increase positive maternal-infant bonding and healthy family interaction; and
5. Increase knowledge among professionals, institutions, and communities confronting ever-increasing numbers of cocaine-using mothers delivering premature infants.

METHODOLOGY: In the immediate postpartum period, identified cocaine-using mothers who deliver premature infants admitted to the Neonatal Intensive Care Unit or Special Care Nurseries are offered voluntary referral to the project and referral to a comprehensive drug treatment program which begins while the premature infants remain hospitalized for weight gain and resolution of medical complications. NICU and Special Care Nursery visits by the mother will be encouraged and structured by stimulation intervention. Upon discharge, infants will be enrolled in day care nursery as needed. Supervised maternal-infant interaction is incorporated into the mother's rehabilitation program, which also includes enhancement of education, vocational, and social skills. The medical component includes postpartum and gynecologic examinations and family planning for the mother, as well as comprehensive medical and developmental assessments and subspecialty referrals as needed for the infants. Mothers undergoing subsequent pregnancies are enrolled in the Prenatal Substance Abuse Clinic for comprehensive prenatal health care and continued drug rehabilitation.

The program's interdisciplinary components are coordinated by an integrated case management system. Transportation is provided for mothers and infants to attend all program activities. Program components are coordinated with other prenatal substance abuse clinic and research activities at UM/JMMC as well as the Florida Department of Health and Rehabilitative Services and other community agencies to ensure that the program enhances but does not duplicate services to the same individuals. The model project will serve 125 mothers and their premature infants comprehensively during the next 5 years. Dissemination of the model to other professionals, institutions, and communities confronting increasing numbers of cocaine-using women delivering medically complex premature infants will be conducted.

EVALUATION: A process evaluation includes extensive data collection on services rendered to project participants directly by the project and by other community agencies. The collected data allows for interpretation of the various interventions on patient outcomes. Outcome evaluations which relate directly to the mother measure reduced substance use, increased school attendance and/or employment, reduction of out-of-home placement of infant and siblings, increased knowledge of development and parenting skills, increased contraceptive awareness, and decreased HIV risk. Infant outcome variables include developmental measures, echoencephalography, ophthalmology assessments and auditory brainstem-evoked responses, child behavior assessments, attendance to routine pediatric care, and nutrition assessments.

The following are some of the measures which will be used in the evaluation process: Addiction Severity Index, Beck Depression Inventory, Rosenberg Self-Esteem Scale, Neonatal Behavioral Assessment Scale, Bayley Scales of Infant Development, Motor Assessment Inventory, Stanford-Binet Intelligence Scale, and Child Behavior Checklist.

EXPERIENCE TO DATE: The project has enrolled and is actively serving 64 cocaine-using mothers and their exposed infants (N=70). Forty-five (69 percent) of the 70 infants are in the custody of the mother; 38 (59 percent) of the 64 mothers have received residential and/or outpatient addiction therapy. The mothers' group provides an additional forum for group therapy and instruction. Medical and developmental services and parenting education are rendered during hospitalization and incorporated into the ambulatory care provided at the UM/JMMC Baby Steps Clinic. Four mothers have had repeat pregnancies during their participation in the project. Three of the four infants were delivered full term.

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SP-01758
02/01/90–01/31/94
Project Director(s):
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PROBLEM: Recent medical research strongly suggests that children born to cocaine-using women are at greater than average risk for problems related to fetal development and abnormalities after birth. The extent of the problem of maternal substance abuse in Pinellas County, Florida, has been documented in a study of the prevalence and incidence of substance abuse among pregnant women conducted by Dr. Ira Chasnoff (*New England Journal of Medicine*, April 26, 1990). The study showed that one out of seven women (14.8 percent) tested positive for drugs at their initial obstetric visit.

A recent increased demand for substance abuse treatment services and other social and health care services has resulted in a lack of coordination between service providers in Pinellas County. This creates confusion among the women who need these services.

GOALS AND OBJECTIVES: The goals and related objectives of the Maternal Substance Abuse Intervention Team project are:

Goal 1: Promote the involvement and coordinated participation of multiple organizations in the delivery of comprehensive services for substance-using pregnant and postpartum women and their infants.

Objectives:

a. Conduct 10 hours of inservice training or professional training per month to target organizations providing information regarding maternal substance abuse and related topics; and

b. Through the Intervention Team Steering Committee, address service gaps in provision of treatment for the target population and develop systems interventions to enhance services.

Goal 2: Decrease the incidence and prevalence of drug and alcohol use among pregnant and postpartum women.

Objectives:

a. Identify 200, assess and refer 150, and track 100 maternal substance abusers each year;

b. Provide assistance in accessing community resources to 100 percent of the target population assessed by the intervention team;

c. Provide referral followup and case tracking services for 100 percent of the women and families assessed and referred by the intervention team;

d. Improve the quality of service delivery through professional activities; and

e. Provide 5 hours per month of presentations (community education, general audience, or target population) that address issues of maternal substance abuse and available services.

Goal 3: Improve the birth outcomes of women who use alcohol and other drugs during pregnancy and decrease the incidence of infants affected by maternal substance use.

Objectives:

a. Increase the number of pregnant substance abusers who receive intervention and treatment services; and

b. Demonstrate the impact of treatment on birth outcomes.

METHODOLOGY: The Maternal Substance Abuse Intervention Team is an interdisciplinary team composed of substance abuse, health care, and child protection workers who provide substance abuse education, screening, assessment, crisis intervention, referral, and tracking services to pregnant and postpartum substance abusers. When service system gaps or client barriers are identified in the process of assisting clients in accessing treatment services, they are brought to the attention of the Intervention Team Steering Committee.

The steering committee meets on a monthly basis and is composed of high-ranking agency representatives who are able to effect change within the member agencies. Steering committee members represent a variety of social service, health care, legal, child protection, and substance abuse treatment service agencies within the county. These individuals are responsible for addressing systems level service gaps and barriers such as lack of available transportation or child care.

The intervention team and steering committee identify and address problems at both the systems level and the direct service level.

EVALUATION: To fulfill the process evaluation component, records of educational activities, the number of resource directories distributed, documentation of steering committee meetings and multiagency team meetings, and records of the number of pregnant and postpartum women assessed and referred to treatment and other services are maintained. Computer data bases have been developed to help maintain information on demographics, service provision, and substance use for the women served and to track their progress in treatment. Data bases have also been developed to maintain information on birth outcomes and community education presentations.

The outcome evaluation component for educational presentations consists of a pretest/posttest instrument which is designed to measure changes in knowledge. Improvements in pregnancy outcomes for women who enroll in program services when they are pregnant, compared to those who enroll postpartum, will include the month when prenatal care began, Apgar scores, gestational age, birthweight, indicators of neonatal morbidity, and the like. Additionally, the annual incidence of drug exposure at birth in Pinellas County will be compared to 1989 baseline data, and a study of the incidence and prevalence of substance abuse among pregnant women will be conducted and compared to the 1989 prevalence study. Survey instruments will be administered; they are designed to determine whether changes in the accessibility and availability of treatment services occur as a result of the work of the steering committee.

EXPERIENCE TO DATE: The project has produced a brochure of substance abuse treatment and intervention service availability and a directory of community resources and social and health services for maternal substance abusers. Substance abuse educational training curriculums have been developed, and a policy and procedure manual outlining program protocols has been drafted.

To date, 429 eligible pregnant and postpartum women have been referred to the program; 394 of these women have been assessed, 6 were not assessed (clients refused, moved, or could not be located), and 29 are pending assessment. Of the 394 clients, 306 were referred to treatment, 67 completed treatment, 134 are still in treatment, 17 are pending placement, 9 moved out of the area, 14 did not need services, and 153 did not follow through. (Of the 153 who did not follow through, 72 have been referred a second or third time for services after reestablishing contact with the program.)

Between May 1990 and July 1992, the project provided 155 educational presentations (inservice, community education, or target population) to more than 4,010 individuals.

The Steering Committee continues to meet monthly, with a high rate of attendance. This systems level intervention and interagency collaboration has proved very effective in bringing together all the significant individuals concerned with services to this target population in Pinellas County. Representatives of agencies and organizations who have never before come together to talk with one another about the issues facing maternal substance abusers are now doing so on a regular basis.

Outreach and Treatment for High-Risk Childbearing Women

Health Crisis Network
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CSAP/MCHB
SP-02508
03/01/91–02/28/95
Project Director(s):
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PROBLEM: A growing proportion of substance-abusing women of childbearing age are becoming infected with HIV. In the future, all substance abuse programs dealing with childbearing women will have to address the needs arising from HIV infection.

As of November 1991, almost one-third of all AIDS cases were diagnosed in persons reporting IV drug use as the route of transmission. IV drug transmission of HIV is especially deadly for women; the majority of the women diagnosed with AIDS between 1981 and 1991 reported IV drug use as the probable route of transmission. Indirectly, IV drug transmission affects women who do not themselves use drugs; a growing number of women are becoming infected through heterosexual contact with IV or other drug users. Substance abuse also contributes to the impact of HIV in other ways: Cocaine and other illegal drugs have immuno-suppressive effects, hastening the collapse of the immune system due to HIV/AIDS; drug use is associated with failure to use contraception and to practice safer sex, thereby further spreading the disease; and crack cocaine use not only contributes to frequent and risky sex, but is part of a sex-for-drugs subculture which has become particularly dangerous for young black women.

The problem of mother-to-baby transmission of HIV is also growing. Congenital AIDS is the fastest growing birth defect in the United States. Nationally, over 70 percent of pediatric AIDS cases are associated with IV drug use, transmitted by mothers who are users or who had sexual contact with users. In Miami, a high percentage of childbearing HIV-positive women have a history of crack cocaine use.

GOALS AND OBJECTIVES: This project has two primary goals:

1. Decrease the incidence and prevalence of drug and alcohol use among pregnant and postpartum women; and
2. Improve the birth outcomes of women who used alcohol and other drugs during pregnancy and decrease the incidence of infants affected by maternal substance use.

The project targets all women at risk for HIV infection, substance use, and pregnancy.

The objectives are to:

1. Increase knowledge and awareness among the target population regarding HIV, substance use, and the impact of high-risk behaviors on pregnancy;
2. Improve the primary skills of the target population, including self-esteem, negotiation, sexual decision-making, and assertiveness;
3. Improve the secondary skills of the target population, including techniques for practicing safer sex and controlling substance use;
4. Increase awareness and skills levels of professionals working with the target population;
5. Increase the percentage of women in the target population remaining drug free after 1 year;
6. Increase the percentage of babies born drug free to the target population;
7. Increase the percentage of "normal" weight babies born to the target population; and
8. Improve the parenting skills of the target population.

METHODOLOGY: This project operates on two fronts: Education and treatment. In education, outreach workers are identifying women of childbearing age at high risk for substance use and HIV infection and making culturally sensitive group presentations to them in housing projects, substance abuse treatment facilities, churches, and other facilities. Most participants will be exposed to the full series of three presentations, which incorporate relevant knowledge and the practice of risk-reduction behaviors. Presenters are role models (e.g., recovering substance-using women from ethnic minorities), and male partners are involved in presentations when possible.

In treatment, hospitals and substance abuse treatment facilities are referring pregnant and postpartum women for counseling and case management. Our counselor, a black grandmother with experience working with multiproblem families, coordinates substance abuse treatment, HIV counseling, and case management for up to 25 chemically dependent, HIV-infected women each year. Counseling includes newly developed groups on parenting skills, on mothers' concerns, and on extended families' concerns. The project aims to create a network of family support and social services that is strong enough to enable the women to maintain sobriety and to cope with their own and their children's illness. Counseling groups for the children are being provided through another funding source.

EVALUATION: The process evaluation is collecting standard data for outreach and treatment in order to monitor client needs (including needs of other agencies for training); client demographics; types, quality, and quantity of services provided; staff needs; staff performance; barriers to implementation; and implications for future directions. Center for Substance Abuse Prevention forms are being used in combination with Health Crisis Network internal forms.

The outcome evaluation for the educational component uses a combination of pretests and posttests for knowledge and skills developed for a nonliterate population, using videotaped role plays as well as simple written instruments and assessments by an independent evaluator. The outcome evaluation for the treatment component is in the early stages of development and implementation. It includes pretests and posttests, participant observation, specific interview schedules, and urinalysis. A comparison group has been identified.

EXPERIENCE TO DATE: After review indicated that no usable materials existed, the Health Crisis Network developed new materials combining substance abuse and HIV risk reduction programming. A curriculum for parenting groups for HIV-positive and chemically dependent mothers was developed and implemented. Mothers' and children's groups were updated to include chemical dependency/HIV concerns. Individual and family counseling has been provided; the current counseling caseload is 16 (1 more than the suggested cap). Evaluation measures were developed and implemented, focusing on measuring changes in a preliterate population. Educational materials and evaluation materials have been translated into Spanish.

Findings to date include the following: (1) Educational outreach significantly increased participant knowledge about HIV in 9 of 11 key areas; (2) 75 percent of counseling clients were drug free after 1 year; (3) 100 percent of clients were drug free at the time of delivery; (4) 100 percent of infants were born drug free; (5) 100 percent of infants were of normal weight; and (6) both outreach and counseling components are reaching more members of the target population than anticipated.

The project has also faced difficult issues: Hurricane Andrew destroyed many outreach sites. There has been some staff turnover, which has delayed progress. Burnout is a major issue for staff serving an HIV-positive chemically dependent population. The Health Crisis Network has developed internal mechanisms for assisting staff with burnout.

Perinatal Substance Abuse: Case Management
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CSAP/MCHB
SP-01951
07/01/90–06/30/94
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PROBLEM: Perinatal substance abuse not only affects the mother and her offspring physically, but also has long-term consequences for families and parenting, including an impact on child abuse. Constantly frustrated by their environments, substance abusers have little or no access to social service systems which may provide support for their pregnancies or life and family stresses/situations, or for drug rehabilitation that would enable them to overcome their addiction. The result is that life stresses, despair, and hopeless distrust drive them deeper into the solace of drug abuse. Such a situation places them in conflict with the law and child protective services; consequently, the fear of prosecution and loss of child custody drives them further away from the health care system.

The majority of our patients use cocaine/crack as the primary drug of choice, but 85–90 percent are polydrug abusers. Cocaine/crack in combination with alcohol, marijuana, and tobacco cigarettes are the illicit drugs most frequently identified in a minimum of 12.1 percent of our delivered patients, representing approximately 2,200–2,500 substance abusers annually. Perinatal risk, mortality, and morbidity are extremely high for both mother and fetus and are increased when the mothers do not seek prenatal care or are refused drug treatment because they are pregnant.

Maternal mortality from strokes and myocardial infarction, and morbidity from uterine bleeding, sexually transmitted diseases (STDs) and HIV infection, subnutritional states, and infections are prevalent in about one-third of our substance abusers. Poor fetal outcome is no less common, and deaths, low birthweight births, prematurity, and growth retardation are widely recorded at rates between 30 and 40 percent in those substance-abusing women receiving little or no prenatal care. Maternal detachment from the fetus (and later, the infant) increases the risk of abandonment and physical abuse and pressures the foster care system.

Since these women will access prenatal/delivery care in preference to most other areas of the health system, prenatal health caregivers are presented with the opportunity to provide alternatives to substance abusers which will realistically offer them a chance to rehabilitate.

GOALS AND OBJECTIVES: The University of Miami/Jackson Memorial Hospital (UM/JMH), a tertiary care center, collaborates with Family Health Center (FHC), a primary care clinic, to develop a model of care for substance-abusing pregnant and postpartum women and their infants which can be replicated throughout our community at other clinics.

The project objectives are to:

1. Change the reticence of pregnant and postpartum women to attend prenatal care and drug treatment by providing comprehensive services at FHC under the guidance of a high-risk team;
2. Use case management services which aggressively seek out the patient in her environs;
3. Provide prenatal, postpartum, and gynecologic services to 50 women annually and provide pediatric, neurodevelopmental assessment, and followup care to their infants over a 3-year period;
4. Provide educational, vocational assessment/skills, and other community services to women and their partners;
5. Offer prenatal care and rehabilitation as early in pregnancy as possible to decrease risks;

6. Provide alternative supports to enhance prepregnancy rehabilitation; and
7. Expand the project to other primary care clinics in Dade County, Florida.

METHODOLOGY: In order to reach our project goal and objectives, we will:

1. Impact the James E. Scott Housing and Urban Development (HUD) housing project through case managers and educational counselors by identifying and working with civic groups, residents/tenant organizations, and individual leaders on the issues of substance abuse and family life and methods of altering drug use during pregnancy.
2. Develop a prenatal substance abuse clinic, specialized to the needs of substance abusers, which will offer comprehensive services for pregnant and postpartum women and their infants, embodying patient-driven need-care plans; high-risk obstetric surveillance; intrauterine bonding/attachment; outreach case management; access to community and social services, housing, food, child care, and the Special Supplemental Food Program for Women, Infants and Children (WIC); drug treatment (residential and/or outpatient); and patient/staff bonding that is culturally sensitive and includes more frequent contacts.
3. Offer prenatal substance abuse health-related education and counseling (e.g., parenting, cardiopulmonary resuscitation, drug issues, and empowerment), with pretesting and posttesting of patients and their partners.
4. Offer postpartum, interconceptional, gynecologic care for pregnant and postpartum women and pediatric and neurodevelopmental care for their infants.
5. Offer vocational assessments, training, and job placements.
6. Provide home visits and assessment.
7. Provide advocacy at Child Protection Services for the final disposition from care of pregnant and postpartum women who are compliant and progressing to prosocialization.

EVALUATION: The process evaluation will include data on case management and educational services throughout the project to determine "what works." Monitoring of personnel activity will permit adjustments to improve efficacy of services offered. Reevaluation of patient plans will permit adjustments in patient priorities and enhance retention.

The outcome evaluation includes maternal, fetal, and infant outcomes in relation to the services developed from the patient need-care plan. Long-term followup of maternal needs, compliance rates, drug relapse rates, and planning of subsequent pregnancies will be recorded to determine progress toward self-reliance. Neurodevelopmental assessment using instruments such as the Brazelton Neonatal Assessment Scale, Dubowitz Score, Motor Assessment Inventory, Bayley Scales of Infant Development, and echoencephalograms will provide long-term data on the infants over a 3-year period.

Rates of abandonment, child abuse, and need for foster/extended care will be used as outcome measures of intrauterine bonding/attachment to determine its efficacy.

Individual and community education will be evaluated by pretesting and posttesting to determine change in attitudes over a defined period. Culturally and racially sensitive informational brochures on substance abuse and pregnancy will be tested on random community groups to determine understanding, acceptance, and effectiveness.

EXPERIENCE TO DATE: The project management team was formed in September 1980 and has integrated the policies of the partner institutions, UM/JMH and FHC, with the philosophy of the project. The team formulated job descriptions and hired personnel (e.g., social worker, case managers, and educational counselors) by February 1991. Educational curriculums and a manual of services were developed.

Project staff then made contact with community organizations, tenants associations, churches, and print and electronic media in the target area. In addition, a network of social services agencies in Dade County was formed.

A vocational counselor, hired in the second project year, was responsible for assessing patient capabilities, counseling, and placement. The vocational counselor has developed a network of Dade County vocational facilities, and continually evaluates the outcome of each patient entered in that network. A schematic plan for each patient allows the vocational counselor to know at a glance the patient's exact status in the job training/placement/progress and maintenance process, and this serves as a tool in evaluating the prosocialization process.

Seventy pregnant patients were enrolled from April to June 1992 (end of the second project year). All have received prenatal care, postnatal care, interconceptional gynecologic care, and case management. All patients were enrolled in drug treatment and all are currently attending either residential or outpatient care, but facilities have been expanded beyond FHC UM/JMH to include Concept House as the number of patients grows. An intake evaluation instrument was used to assess each patient's needs and to develop a patient-driven plan of care. This plan is reassessed every 3 months. Case managers supervise the plan under the direction of the social worker, drug therapist, and obstetrician. An additional six patients were lost to followup or moved out of Dade County.

Four patients have returned with second pregnancies in this project. All are drug free at entry and maintaining full compliance. Compliance is assessed by number of appointments kept (82 percent), drug relapse (36 percent), and progress in rehabilitation. Other tools developed include Maternal-Fetal Bonding Scale for assessing intrauterine bonding, Maternal-Infant bonding, pretests and posttests on a lecture series on pregnancy and substance abuse-related issues, Intake Assessment Tool, Brazelton Neonatal Assessment Scales for neonates, and Bayley Scales of Infant Development at 1, 4, 8, 12, 18, and 24 months. Pediatric well-baby care is provided at normal intervals.

Project staff attended the Center for Substance Abuse Prevention (CSAP) Evaluation conference in Washington, DC, and the CSAP Learning Community conference in July. Three staff members voluntarily continue enrollment in courses in the Chemical Dependence Unit of the University of Miami. A staff retreat was held to deal with staff issues and prevention of burnout from stress.

An information telephone line, (305) 548-4528, has been established and advertised. Patients receive information and anonymous confidential drug testing, pregnancy testing, and, if agreeable, are guaranteed appointments for prenatal care or intraconceptional gynecologic care within 7–10 days of requesting services.

Project staff have networked with seven other CSAP grantees at local, State, and national levels on sharing services and ideas for perinatal substance abuse. Two other requests have been forwarded to us through CSAP and are being planned in the coming year.

Pregnant and Postpartum Women and Their Infants

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Women's Intervention Services and Education
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CSAP/MCHB
SP-01138
02/01/90–01/31/95
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PROBLEM: The problems associated with drug use during pregnancy have become endemic in the last few years, particularly in rural northwestern Florida. The drug of choice in this region is primarily crack cocaine.

This project addresses the problems of substance-abusing pregnant and postpartum women in a four-county area and offers them early intervention, treatment, coordination of prenatal care, case management, legal advocacy and diversion from the criminal justice system, supported housing, purchase of client services contingency funds, and extensive aftercare.

GOALS AND OBJECTIVES: The four primary goals of this project are to:

1. Promote the involvement and coordinated participation of multiple organizations in the delivery of comprehensive services for substance-using pregnant and postpartum women and for their infants;
2. Increase the availability and accessibility of prevention, early intervention, and treatment services for these populations;
3. Improve the birth outcomes of women who use alcohol and other drugs during pregnancy, and decrease the number of infants affected by material substance use; and
4. Reduce the severity of impairment among children born to substance-using women.

Some of the project objectives are to:

1. Increase appropriate referrals to the project by personnel in the fields of mental health/drug abuse, education, child protection, health care, and the criminal justice system, and increase self-referrals as well;
2. Increase the number of service system personnel, physicians, and other health care professionals who are aware of the special needs of the target population;
3. Improve multiagency collaboration and integrated case management systems for service to the target population;
4. Increase the range of various types of services received by pregnant and postpartum women;
5. Increase the proportion of women who successfully complete treatment;
6. Provide comprehensive prenatal services for substance-using females, including medical care, transportation, housing, respite care, counseling, and support groups;
7. Improve early childhood care for children born to substance-abusing mothers; and
8. Increase linkage and coordination among prevention/early intervention programs.

METHODOLOGY: Under the leadership of the District I Alcohol, Drug Abuse, and Mental Health Program of the Florida Department of Health and Rehabilitative Services, the Women's Intervention Services and Education (WISE) project has identified pregnant and postpartum substance-abusing women and their infants, and has coordinated services and provided legal advocacy for this target population during the past 3 years. To date, the WISE project has served approximately 356 women.

In conjunction with treatment providers, the WISE project has developed flexible treatment programs designed to meet the needs of pregnant and postpartum women (including prenatal care, child care for children, and supported housing) and provided client contingency funds for medical emergencies and other client service needs. Implementation of a unique alternative-to-sentencing program in coordination with the District State's Attorney Office has diverted many women into treatment and out of jail.

EVALUATION: Both process and outcome measures are included in an extensive data collection process. Process information is being collected on the following aspects of program implementation:

1. Program activities designed to achieve objectives;
2. Barriers to achieving objectives; and
3. Evaluation of the WISE program by other agencies.

The outcome evaluation consists of specific measurements related to many program activities. For example, measurements of annual proportions of children born with addictions or positive test results will be compared to 1990 baseline data for the length of the project.

EXPERIENCE TO DATE: The WISE project has modified the Addiction Severity Index (ASI) to this population of women and has found it to be a successful tool in assessing the clients' current status and needs. Additionally, the project has developed two evaluation instruments, the WISE Client Tracking System and the WISE Follow Along Form. These instruments provide current demographic and treatment information on clients served by the project. For example, the project can determine the number of pregnant women with criminal charges who have successfully graduated from a specific treatment program and remained drug free.

The project has had a major impact on the responsiveness of regional substance abuse treatment providers to program adaptation and change. Prior to the project's inception, none of the substance abuse treatment providers would admit pregnant women into residential placement. Now all providers of residential substance abuse treatment serve pregnant women and have modified their treatment programs for this population. Additionally, out of necessity, the project has developed an extensive continuing care or aftercare component which provides ongoing case management and a variety of required therapeutic groups to assist clients in maintaining sobriety after treatment and transition back to the community.

The project serves as a clearinghouse for all residential treatment beds for women in the four-county region (District 1). Consequently, when the project refers a client to a treatment program, the client is immediately accepted into treatment by the provider agency based on the WISE treatment team recommendation. The treatment team is composed of WISE staff, representatives of provider agencies, health department staff, child protection team staff, and the WISE medical consultant, a physician who is certified in the study of addiction.

Prenatal and Interconceptional Support of Substance-Abusing Mothers

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CSAP/MCHB
SP-02124
07/15/90–06/30/95
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PROBLEM: Chemical dependency has increased steadily among women. For some drugs, such as cocaine, abuse by women is increasing more rapidly than abuse by men. Recent research shows that total substance abuse rates in rural States are about as high as in nonrural States. This project addresses the problem of substance-abusing women in Putnam County, a small rural county in north central Florida with a population of 65,000. The project is available to any low-income woman of childbearing age, with emphasis on prenatal and postpartum mothers.

It is estimated that one-third of the prenatal clients seen at the Putnam County Public Health Unit are currently substance abusers or have a history of substance abuse. Adding to this problem are significant social problems such as poverty, lack of adequate housing, and lack of transportation. These problems place a great burden on the county's limited resources.

GOALS AND OBJECTIVES: The goal of this project is to develop an interdisciplinary, coordinated community program to reduce substance abuse and improve birth outcomes among low-income pregnant and postpartum women.

The project objectives are to:

1. Provide care to 60–80 pregnant and postpartum substance-abusing women annually by developing an interdisciplinary, coordinated, community treatment team, maximizing existing health and mental health resources;
2. Increase the accessibility and use of existing prevention, early intervention, and treatment services by substance-abusing pregnant women through the use of specially trained resource mothers; and
3. Decrease the incidence of drug and alcohol abuse among pregnant and postpartum women and improve their birth outcomes by providing comprehensive medical and support services during the prenatal and extended postpartum periods.

METHODOLOGY: The North Central Florida Maternity and Infant Care (NCFMIC) Project, which is part of the Department of Obstetrics and Gynecology of the University of Florida, provides care to low-income women who have a history of substance abuse or are currently substance abusers. The project collaborates with the Putnam County Public Health Unit, Putnam Community Hospital, Putnam House (a long-term residential treatment center), and Putnam Guidance Clinic (an outpatient community mental health facility). The project provides care during the prenatal period and for 2 years postpartum. Clients are referred to the project from all of the above-mentioned facilities and from the local State-operated social service agency.

Women receive services at the local health department. These services include prenatal and postpartum care, nutrition counseling and financial assistance from the Special Supplemental Food Program for Women, Infants and Children (WIC), social/support services, and individual and group therapy. Included are postpartum classes for each delivered mother. Services are provided by a certified nurse-midwife, a licensed nutritionist, a social worker, and a therapist. An innovative aspect of the project is the use of paraprofessionals called resource mothers as part of the health care team. The resource mothers conduct home visits and serve as a bridge between the professional, the community, and the client. Their specific

responsibilities include: (1) Facilitating referrals to community social service agencies and following up with the client to ensure attendance; (2) assisting the health professionals in identifying additional risk factors; (3) followup teaching and reinforcement during weekly in-home visits; and (4) client advocacy.

EVALUATION: Both process and outcome objectives will be evaluated. Process evaluation includes the following documents: (l) Project task plan, (2) client case records, (3) training manual, (4) protocol manual, (5) community referral guide, (6) administrative manual, and (7) automated data processing system.

Outcome evaluation will focus on program effectiveness in reducing substance abuse and improving birth outcomes. The impact of the program intervention will be measured by comparing the following indicators for program participants and a comparison group: (1) Participation in prenatal and p partum visits, (2) birthweight, (3) gestational age, and (4) presence of drugs documented at delivery

EXPERIENCE TO DATE: The project has provided some service to 159 women. Currently, 93 women are enrolled. They are low-income women with poor educational achievement who lack job experience. Project staff have observed an increase in sobriety and self-reliance among clients who have been in the program for more than 12 months. Pregnancy outcomes have been excellent. Women have kept 82 percent of their prenatal appointments. The incidence of low birthweight (8 percent) is comparable to the general populations of pregnant women seen in the county health department.

Prevention of Substance Abuse by Pregnant and Postpartum Women

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CSAP/MCHB
SP-01679
09/30/89-05/31/94
Project Director(s):
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PROBLEM: This project addresses the increased incidence of substance abuse among pregnant and postpartum women and the effects on the newborn and the family system. Due to medical high risk or financial need, women are referred for prenatal care at the Women's Health Group (clinic) at the University of Florida from the surrounding 16-county area.

GOALS AND OBJECTIVES: The program goals are to promote the involvement and coordinated participation of multiple organizations in the delivery of comprehensive services; increase the availability and accessibility of prevention, early intervention, and treatment services; decrease the incidence and prevalence of drug and alcohol abuse among pregnant and postpartum women; and reduce the severity of impairment among children born to substance-abusing women.

The following objectives are designed to address these goals:

1. Participate in interagency task forces or committees in order to facilitate communication regarding the service delivery needs of the target population:
2. Present inservice training/presentations to community agencies to improve understanding of the specific population needs;
3. Provide case management to at least 7 percent of clients screened through the Women's Health Group;
4. Provide psychological/educational services to at least 7 percent of the clients screened;
5. Achieve and maintain a rate no greater than 10 percent for positive urine screens of program participants;
6. Assist 75 percent of program participants to maintain a drug-free lifestyle;
7. Ensure that 75 percent of program participants parent their children in their own homes with no confirmed reports of abuse or neglect; and
8. Ensure that 75 percent of children born to program participants receive regular, documented well-baby and/or developmental followup services during the first 2 years after birth.

METHODOLOGY: The basic format of case management or service coordination is used to facilitate prenatal care and postdelivery program compliance. Clients are screened using a self-assessment tool to identify women who are currently abusing—or are at high risk for abusing—drugs and alcohol. Identified clients are then voluntarily enrolled in the program. Case managers provide clinical intervention at prenatal visits and monitor compliance and progress.

Client problems and barriers are identified and plans of action are developed to facilitate the client's ability to solve problems. Financial assistance is provided as needed. Transportation or child care are provided when those issues are barriers to the client's efforts to receive rehabilitative treatment, education, or vocational training.

Program staff develop and maintain referral linkages with appropriate resources in the community. Substance abuse education/prevention is provided both to community resources and to clients and their families.

EVALUATION: Monthly quantitative statistics will be maintained to document program activities, including clinical interventions, education/prevention services, and resource coordination activities. Both clients and program staff assess interagency services. Birth outcomes will be tracked at delivery and through the child's second birthday. Outcomes will be compared with those of other substance-abusing women who give birth at Shands Hospital. The cost of financial assistance will be compared with birth outcomes to assess correlations.

EXPERIENCE TO DATE: The program has been fully operational since January 1990. Thus far, approximately 10 percent of patients have been identified through clinic screening as having a history of substance abuse or have been identified through psychological screening as being at high risk for substance abuse. A little more than 50 percent of the women identified as eligible for the program have voluntarily enrolled. Of the infants delivered, 95 percent have been discharged to the mother or other family member.

Program staff have provided inservice training to various professional groups on the needs of the target population. The case management model has been presented through two poster sessions and two workshops to four national professional meetings.

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PROBLEM: Cocaine use by women of childbearing age in the State of Florida has increased significantly over the past decade. A preliminary study conducted in 1989, in which 500 random urine specimens were obtained from women who presented in labor at Tampa General Hospital, revealed that 11.4 percent contained illicit drug metabolites. More recently, in 1990, the Department of Health and Rehabilitative Services (HRS) received reports on 360 substance-exposed newborns for Hillsborough County. The bulk of these cases (69 percent) involved cocaine. Children with substance exposure face increased risk of perinatal complications such as low birthweight, microcephaly, and prematurity. Foster care placement is common for this population.

Although the Tampa Bay area offers five drug rehabilitation programs, there continues to be lack of availability, lack of coordination of services, and poor accessibility for the pregnant substance abuser. Health care professionals and community legislators are often uncertain and judgmental about substance-abusing patients. Substance abuse is often seen as a crime rather than a disease. These perceptions further compound the problem and may inhibit women from seeking early prenatal care. A recent status report from HRS indicated that 88 percent of these women had not received prenatal care in the first trimester. The many needs of these women call for comprehensive services at a single site.

GOALS AND OBJECTIVES: Project STRIVE has five goals which are consonant with those proposed by the Center for Substance Abuse Prevention (CSAP):

1. Unite existing community services and programs to provide comprehensive care to substance-abusing pregnant women and their children;
2. Improve availability and accessibility of these services;
3. Decrease substance abuse among project participants;
4. Decrease the probability of poor birth outcomes of infants born to project participants; and
5. Improve developmental outcomes among the children.

The project objectives are to:

1. Create a one-stop shopping approach which expands upon existing obstetric and pediatric services provided by Genesis Maternal and Child Health Center;
2. Provide high-risk obstetric care in conjunction with intensive social work, parenting instruction, pediatric care, patient transportation, and child care;
3. Increase knowledge among health care professionals about substance abuse awareness and cultural competencies;
4. Provide comprehensive drug treatment services to pregnant women;
5. Provide high-risk obstetric care complemented by nutrition counseling and pregnancy and child birth education; and
6. Promote optimal mother-child attachment by providing parenting instruction, intensive social work, and neurodevelopmental followup to chemically dependent women and their infants.

METHODOLOGY: Project STRIVE is aimed at the pregnant substance abuser at less than 28 weeks' gestation. Patients identified by positive drug screen, history, or community referral may be eligible. The women will receive obstetric and pediatric care services through the Genesis Maternal and Child Health Care Center. This center is located in an area of high infant mortality and maternal substance abuse. Project STRIVE participants will receive short-term inpatient drug rehabilitation as needed and ongoing outpatient drug counseling. Ongoing indepth case management, provided by a master's level social worker, will be a vital component. Parenting instruction, using a culturally competent curriculum, will encourage optimal mother-infant interaction. Infant developmental assessment and anticipatory guidance/intervention will be provided for participants. In addition, Project STRIVE provides the opportunity to teach a coterie of young obstetric and pediatric residents, paraprofessionals, and the Hillsborough community about substance abuse and treatment.

EVALUATION: Periodic process evaluations will detail patient characteristics, services rendered, project procedures and protocols, and organizational agencies. Multiple types of outcome evaluations have been included. Maternal drug use patterns and psychosocial functioning will be evaluated using the Addiction Severity Index, urine drug screens, a drug use profile questionnaire, the Beck Depression Inventory, and the Psychosocial Functioning Inventory. The instruments will be given during baseline and again at the conclusion of rehabilitation. Where appropriate, *t* tests for independent samples will be employed. Proportional data will be handled using McNemar's test. Perinatal status and developmental outcome of the children will be assessed using multiple measures, including the Obstetrical Complications Scale, the Brazelton Neonatal Behavioral Assessment Scale, Bayley Scales of Infant Development, neurological exams, and the REEL-2. Independent *t* tests, or analyses of covariance, will be employed where appropriate to assess outcomes of STRIVE children versus outcomes of a similar comparison group. Parenting attitudes and mother-infant interaction will also be examined. The Home Observation for Measurement of the Environment (HOME) Inventory will be given prior to the parenting intervention and at completion of the intervention. The Nursing Child Assessment Satellite Training (NCAST) Feeding and Teaching scales are additional tools that will be used.

Finally, Project STRIVE hopes to increase awareness regarding substance abuse. A drug awareness inventory is being developed for health care professionals. A patient satisfaction questionnaire is also planned.

EXPERIENCE TO DATE: As of January 1993, the project has enrolled 23 clients and has had 7 births. To date, all babies born to program participants have tested negative for drugs. We are in the process of expanding services to include a larger number of clients.

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CSAP/MCHB
SP-01559
09/30/89–05/31/94
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PROBLEM: Low birthweight births have a neonatal mortality rate (infant death within the first 28 days) that is 40 times the rate of infants born with normal weight. The rate for low birthweight births in Hillsborough County is among the highest in Florida. The rate for Hillsborough County is well above 8 percent, while the rate for Florida is 7.7 percent and the national rate in 1989 was 6.9 percent. This elevated rate is attributed partially to the high number of cocaine-positive babies, along with tobacco, alcohol, and other drug use during pregnancy. The interactive effects of substance use during pregnancy and low socioeconomic status can have a major adverse impact on birth outcomes. The high percentage of low-income women in Hillsborough County who are of childbearing age (15–44 years) makes drug use during pregnancy a priority issue. There is a disproportionate rate of low birthweight births and substance-exposed infants among the county's census tracts. Of the county's 1,136 low birthweight births, 20.7 percent were found in just 16 census tracts; 46 percent of the county's substance-exposed births were from the same 16 census tracts.

GOALS AND OBJECTIVES: The project has three health outcome goals. They are to: (1) Improve birth outcomes in high-risk census tracts through reducing substance use in pregnancy; (2) improve birth outcomes in pregnant substance abusers identified in cooperating agencies; and (3) improve the health and social outcomes of pregnant substance abusers through strengthening linkages among prenatal care services, high-risk pregnancy services, and substance abuse treatment programs. The target population is low-income and minority women who use the Florida Department of Health and Rehabilitative Services/Hillsborough County Public Health Unit (HRS/HCPHU) for their prenatal care.

The project objectives are to:

1. Identify and implement a training protocol to educate the community and agency staff on substance use and abuse education;
2. Complete, test, finalize, and implement protocols for identification and referral of substance-using pregnant clients to prenatal care services, substance abuse treatment programs, and other related services;
3. Develop, implement, test, revise, and produce a community health aide training manual;
4. Recruit, hire, and train community health aides, and implement the field program;
5. Produce a training manual for reducing smoking during pregnancy for women with an effective eighth-grade reading level;
6. Develop a management information system to track client flow, assess client progress, and monitor referral processes;
7. Complete time and motion studies in agencies and clinics to determine the nature of educational input;
8. Develop a directory of community resources; and
9. Assure the provision of social support to program participants through establishing interagency agreements.

METHODOLOGY: The program involves a cooperative agreement among three agencies in Hillsborough County, Florida. The Florida Department of Health and Rehabilitative Services/Hillsborough County Public Health Unit provides the community outreach component for the project, which includes identifying clients and providing prenatal services and social support. The University of South Florida's College of Public Health (USF) is responsible for evaluation, identification of community resources, and development of education and training curriculums. Alcohol Community Treatment Services (ACTS) provides substance abuse treatment services to identified pregnant substance users as well as client evaluations and referrals. Additionally, Project SUPPORT employs nine direct service personnel: Two full-time social service coordinators (SSCs); four full-time indigenous community health aides (CHAs) located at HRS/HCPHU; and two full-time early intervention specialists (EISs) located at ACTS.

Clients are identified through a variety of outreach efforts, including receiving direct program referrals from any of the seven Hillsborough County prenatal clinics; public or private substance abuse treatment agencies in the county; area hospitals serving high-risk prenatal patients; other agencies which provide services to pregnant substance users; and outreach efforts of CHAs operating in selected high-risk areas.

Clients are contacted by designated staff members from the above agencies and referred to the social services coordinators. Identified pregnant substance users, if not already participating in prenatal care, are referred to HRS/HCPHU prenatal services and given a priority appointment, often within 1 week. They are also referred to the early intervention specialists, who are responsible for determining individual substance abuse treatment needs. Clients who have a smoking problem are encouraged to enlist in a smoking cessation program designed to meet the needs of low-income pregnant women.

The efforts of clinic staff are reinforced by the neighborhood-based community health aides and by their supervisors, the social service coordinators, who work to secure child care, transportation, and other social and financial resources. They make continuous contact with these clients who reside in select high-risk areas, to help clients keep their appointments at prenatal clinics and substance abuse treatment facilities.

EVALUATION: The evaluation design is a matched-pairs design. For each program participant, there will be two nonparticipant clients selected from the same service area for comparison. The evaluation staff has selected comparison clients based on three characteristics (age, race, and parity), and data collection of information relevant to the evaluation is ongoing. For clients, information is abstracted from the drug treatment, prenatal care, and community health outreach files. Client profile forms are filled out at intake, and 120 have been entered into the data base. There are some clients for which data are missing and this information will be obtained from other sources, including the State Vital Statistics Office.

EXPERIENCE TO DATE: It is necessary to include a broad representation in the planning process, including agency decision makers, field staff, and community representatives, and to anticipate initial problems with cooperation among collaborating agencies. Additionally, staff should anticipate barriers to program implementation presented by staff outside the project but within participating agencies at various bureaucratic levels. This must be addressed continuously through interdivisional communication.

The project has experienced significant community recognition and stability in its outreach efforts since filling all service positions and moving the outreach component positions to full time. It has been the experience of this program that it is possible to recruit bright, articulate residents for $5 per hour. The project was able to find funding to shift the outreach workers to full-time positions, and two new persons were hired and two of the previous health aides were retained. Some of those what could not be retained were transferred to other positions in the Health Department. In hiring applicants for community health aide positions, clear criteria and a screening mechanism must be developed before posting positions. It not necessary that CHAs be from the neighborhood in which the interventions take place, as long as the workers are of similar social demographic backgrounds.

Currently, much of the training is provided on the job, with favorable results. After the initial intense workshop-style instruction, training shifted to weekly inservice training sessions with the addition of developing mentor relationships between experienced community health aides and experienced community health nurses. The CHAs have been recognized in the community for their outreach efforts and have been successful in identifying clients for the program. Their efforts continue to yield the majority of referrals.

Support and Training for Infants and Mothers
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CSAP/MCHB
SP-03039
09/01/91–05/31/96
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PROBLEM: Since the introduction and rapid spread of crack cocaine in this country, there has been a notable rise in drug abuse among women of childbearing age. In Broward County, Florida, it has been estimated that approximately 5.5 percent of all babies born in the county are substance exposed. Recent studies have shown that 40 percent of the newborns in the neonatal intensive care unit at the county's largest public hospital suffer from cocaine-related conditions. Alcohol use among pregnant women continues to be a pervasive problem affecting an additional 6 percent of the births in the county.

GOALS AND OBJECTIVES: The Support and Training for Infants and Mothers (STIM) project has five major goals:

1. Promote the involvement and coordinated participation of multiple organizations in the delivery of comprehensive services for substance-using pregnant and postpartum women and their infants;
2. Increase the availability and accessibility of prevention, early intervention, and treatment services for these populations;
3. Decrease the incidence and prevalence of alcohol and drug abuse among pregnant and postpartum women;
4. Improve the birth outcomes of women who use alcohol and other drugs during pregnancy and decrease the incidence of infants affected by maternal substance abuse; and
5. Reduce the severity of impairment among children born to substance-abusing women.

The project objectives are to:

1. Establish an interagency advisory committee;
2. Develop and implement an integrated service model comprised of existing community resources including substance abuse treatment, perinatal care, and educational and vocational services;
3. Reduce alcohol and other drug use in project participants through the provision of chemical dependency treatment programs as well as individual, group, and family therapy;
4. Deliver full-term serum-negative babies of normal birthweight to 80 percent of project participants who enroll during their first or second trimesters;
5. Provide developmental evaluation, intervention, and case management services to the infants of project participants;
6. Provide therapeutic day care services to the infants of project participants; and
7. Enhance the parenting competencies of project participants.

METHODOLOGY: Under the administration of the Children's Diagnostic and Treatment Center of South Florida (CDTC), a division of the North Broward Hospital District, the project will work collaboratively with other community organizations to provide comprehensive, integrated treatment to pregnant and postpartum women and their infants. Services will be provided in a community-based setting located in inner-city Fort

Lauderdale. Referrals will be generated from the public health system, public assistance programs, religious organizations, and the criminal justice system.

Upon enrollment, each participant will receive a full interdisciplinary assessment including prenatal medical evaluation, alcohol/drug inventory/history, social services assessment, resource survey, family profile, psychosocial assessment, and educational/vocational assessment. An individual treatment plan, with specific goals and objectives, will be developed within 30 days of admission.

Most participants will begin with a highly structured full-day program comprised of chemical dependency treatment; prenatal medical care; academic remediation; childbirth education; parenting skills training; health, nutrition, and wellness classes; and community activities. As participants achieve recovery goals, greater emphasis will be placed upon education, career development, and reestablished involvement in the community. After delivery, participants will return to the program with their infants to continue treatment or may elect to participate on a less structured outpatient basis. Community-based vocational training programs or employment will be encouraged and facilitated for most participants. The infants will receive onsite child care up to 1 year of age and multidisciplinary developmental evaluation through the CDTC adjunct pediatric clinic. All participants will be discharged after 18 months of participation in the program, with a 6-month followup plan.

EVALUATION: Process evaluation includes extensive data tracking of program activities, including program development, client assessment, case management, treatment services, educational activities, and vocational services. These data demonstrate the type and frequency of services rendered and the various interventions applied toward goals and objectives. Outcome evaluation consists of analysis of birth outcomes by comparison group and periodic administration of psychosocial inventories to measure the effectiveness and outcome of educational and psychotherapeutic treatment activities.

EXPERIENCE TO DATE: Project STIM opened as a full-day treatment program on January 27, 1992. During its first year, the project served 38 women and 14 infants; 12 of these infants (86 percent) were born drug free. All clients are provided with comprehensive prenatal medical care and case management. In addition, they participate in entry, monthly, and exit inventories. Interview protocols developed for the purpose of psychosocial assessment, as well as standardized measures, are in use. The measures include a client handbook, psychosocial/structured interview schedule, alcohol and drug inventory, relapse prevention materials, assertiveness training modules, Speilberg State-Trait Inventory, Tennessee Self Concept Scale, Beck Depression Inventory, the Wechsler Adult Intelligence Scale, and the Minnesota Multiphasic Personality Inventory. Clients engage in individual and group therapy each day. Couple/family therapy is available on an ongoing basis. The infants' medical and developmental status is monitored regularly at the Children's Diagnostic & Treatment Center.

A teacher provided by the Broward County School Board provides individual academic programs for clients. One client has returned to college, another has passed the GED, and three clients are registered for the GED in February 1993. Career and vocational training are available to clients through the assistance of county agencies; 70 percent of the clients have been evaluated for job training. An aftercare program for clients requiring transition out of the daily program is scheduled to begin in March 1993. Schedules are modified for those clients engaged in college studies, job training, and employment.

Project staff have participated in various substance abuse workshops and inservice training. State and local conference presentations are planned for 1993.

Active recruitment of clients continues within the community, although a decision to no longer screen women for drug use in the prenatal clinics has made this issue a formidable one for the project. Staff make regular presentations throughout Broward County to solicit referrals for day treatment.

Client attendance has been maintained at approximately 85–90 percent daily for the past few months.

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CSAP/MCHB
SP-01608
02/01/90–1/31/94
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PROBLEM: More than 10 percent of Florida newborns are exposed to cocaine and other drugs before birth, yet drug treatment programs have been less successful with women than with men. Some of the special barriers confronting women seeking, accepting, and receiving treatment for drug problems include economic and social barriers, professional practices, and unmet treatment needs of women. Frequently, women have multiple nontreatment needs, such as the need for adequate child care, housing, education, and job opportunities, which interfere with participation in treatment for addictions and recovery. These needs are in addition to the emotional problems that exist concurrently with substance abuse.

GOALS AND OBJECTIVES: This project strives to break the intergenerational cycle of addiction by treating the mother's chemical dependency while coordinating multiple services for mothers and children and providing parenting skills training.

The project objectives are to:

1. Increase through outreach the number of chemically dependent pregnant and postpartum women who are identified early, referred for treatment, and enrolled into treatment for their addictions;
2. Facilitate participation in the multiple services needed by chemically dependent women and their children before, during, and after pregnancy through service coordination;
3. Make available ongoing, woman-focused treatment for chemically dependent women in childbearing years, and improve retention rates of women participating in treatment; and
4. Foster healthy family functioning as an integral part of drug treatment for substance-using mothers through parenting skills development and support, health education, and onsite child care for their younger children.

METHODOLOGY: This project, one of the Center for Drug-Free Living's treatment programs, provides overlay services to enhance outpatient and residential treatment for women. The project provides service coordination (case management) to assist the treatment staff in accessing multiple services needed to meet nontreatment needs which present barriers to effective treatment. Child care, health education, and parenting training are included in treatment. By providing a woman-focused treatment, the project addresses important issues which are often left untreated when women participate in traditional treatment programs. We have found that merely treating the woman's addiction leaves her unprepared for independent living. Treatment staff, in cooperation with case management staff, have been able to intervene in other areas of her life to either provide direct treatment services or referral to other treatment agencies. A high percentage of women present issues related to incest and other sexual abuse, lack of education, poor or nonexistent employment history, and other contributors to extremely low self-esteem. This women's program is community-based, and located in one of Orlando's primary low-income drug areas which may have been home to the client before she entered the program. The program also focuses on the mother-child relationship in an effort to decrease the stress of parenthood for the mother and to foster healthier family functioning in order to break the family cycle of chemical dependency.

In many instances, the client may have given birth to several other children already, but is likely to have lost custody due to her substance abuse; the child she delivers while in the program may be the first child she has

actually parented. We encourage the daytime placement of older siblings in our onsite child care center, and, in many cases have been able to do so, with the cooperation of the child protective agency. With "at-the-elbow" parenting training, the mother is able to gain experience in caring for her children. Every attempt is made to encourage mother-child bonding, and to foster positive child-rearing practices.

EVALUATION: A process and outcome evaluation will include information regarding services, staff, and clients. Some of the aspects measured will include: Participation in the various components, client retention, birth outcomes, referral networks, child assessments, maternal addiction measures, and posttreatment followup. In addition to pretreatment and posttreatment measures, client outcomes will be compared with measures of those clients who did not enroll in the treatment program. Additionally, birth outcomes of those who enter treatment prenatally will be compared with outcomes of those who enter treatment postpartum.

We plan to share information about the activities related to the program's implementation. Much discussion and effort were spent on defining what would represent a woman-focused program. As the program's operation evolved, the special needs of the women and their children became clear, as did the program's direction, in meeting the women's needs. Staff members needed to resolve their confusion about their own issues, versus the women's issues, in order to make the program more effective.

EXPERIENCE TO DATE: In addition to providing services to 120 women per year, the project has been developing curriculums for health education and for parenting skills training to be used with women in substance abuse treatment. The child care center has been developed to provide specialized treatment for substance-exposed children. We are finding that providing interventions to place a substance-abusing woman in the residential program as early as possible produces a healthy baby at delivery. One important variable continues to be the consistent prenatal care provided for pregnant women in treatment. Also, mothers who have completed parenting education appear to be able to maintain more positive, less punitive relations with their children. Most important, however, is that having the pregnant mother in residential treatment reduces the occurrence of substance-exposed newborns.

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CSAP/MCHB
SP-01189
09/30/89–08/31/94
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PROBLEM: This project coordinates community and State services to maximize treatment and general health care for substance-abusing pregnant women and their infants.

GOALS AND OBJECTIVES: The project focuses on 3 major goals for intervening with substance-abusing pregnant and postpartum women and their newborns in a 16-county area of Georgia. Project goals are to:

1. Provide appropriate training to staff of human services agencies dealing with pregnant women so that: (a) Professional and community personnel can gain understanding of the effects of prenatal substance abuse on the fetus/infant; (b) women can be identified and referred in an early stage of pregnancy; and (c) increased knowledge of and access to treatment and available referral resources will result.
2. Develop a model program of intervention for selected pregnant women who are identified as substance abusers, with the result of improving birth outcome and decreasing the effects of substance abuse on the infants.
3. Provide a 2-year followup of the women and infants served by this program to assess the impact of the program on the development of the child and on the lifestyle of the mother.

METHODOLOGY: Training of human services providers is necessary for early identification of eligible patients and coordination of services. In addition, providing long-term supervised living arrangements that exhibit aspects of a therapeutic community enables eligible women to remain safe and drug free while they establish a strong foundation for sobriety and acquire skills needed for parenting and for self-support.

EVALUATION: Both outcome and process parameters are used to measure agencies' involvement in the program, dissemination of information, and coordination of services. Collection and analysis of data are conducted by a consultant from Georgia Southern University.

EXPERIENCE TO DATE: Implementation of the project began in September 1989. Training modules with emphasis on pregnant substance abusers were presented to health care providers in 16 counties of southeast Georgia. The residential component of this project became operational in March 1990. To date, 33 women have been admitted to the 6-bed facility. Of these, 14 remained until delivery, with 14 babies born full term and drug free. Only one infant was born with a birth defect, which could not be definitely linked to the mother's drug use.

While in residence, clients focus on substance abuse counseling, attendance at self-help groups, nutrition, financial management, and G.E.D. preparation. Nineteen women graduated from the program when their babies were 3 months old, and an additional 5 women left between 1 and 2-1/2 months after delivery. Aftercare plans have been developed by project staff for each of the mother-infant dyads. These plans include continuing outpatient substance abuse counseling and periodic exams of the infants. At the clients' requests, the project ca manager has assisted five of these women in relocating to the home county of the project. All clients re n in followup care provided by the case manager until the end of the grant period.

Targeting High-Risk Female Adolescents for Prevention of Substance Use: Before Pregnancy, During Pregnancy, and Postpartum

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CSAP/MCHB
SP-01957
07/01/90-06/30/95
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PROBLEM: Research studies indicate that adolescents who begin one negative health behavior are at risk for becoming involved in other negative health behaviors. Adolescents who begin sex at a young age are extraordinarily at risk both for becoming involved in a pregnancy and for beginning substance use. This can affect any immediate pregnancy, as well as reproductive health outcomes in the future.

GOALS AND OBJECTIVES: The overall aim of the project is to demonstrate that it is possible for family planning clinics serving adolescents to identify and target those adolescents at highest risk for becoming sexually involved and pregnant at a young age as well as becoming substance users. Through intervention, such clinics can help young people avoid the beginning of potentially harmful substance use or prevent the escalation of substance experimentation/use into substance abuse. To demonstrate this, the project will use an adolescent family planning clinic as a base to increase the availability and accessibility of prevention and early intervention services and to improve linkage with appropriate treatment services.

The project objectives are to:

1. Demonstrate that human sexuality education programs in schools and elsewhere conducted by family planning programs provide an appropriate and effective intervention point for helping male and female adolescents understand the interrelationship of substance use and reproductive health and make better choices about substance use;
2. Demonstrate that adolescent family planning clinics are appropriate settings for identification and counseling of those adolescents at risk for beginning experimentation with substance use as well as those at risk for increasing use beyond experimentation;
3. Demonstrate that adolescent family planning clinics are appropriate settings for identification and referral of adolescents engaged in harmful substance abuse; and
4. Demonstrate that adolescent family planning clinic programs using education/information/counseling and referral for treatment can assist young people in either delaying or foregoing experimentation with alcohol, drug, or cigarette use or reducing to a minimal level the harmful use of such substances.

METHODOLOGY: The Department of Gynecology and Obstetrics at Emory University, in cooperation with Grady Memorial Hospital (a large publicly funded hospital serving the two most populous counties in Georgia) and the Atlanta Public Schools (a large inner-city school system), will implement an innovative family planning-based intervention project. Using multiple strategies, the project will target low-income black female high-risk adolescents at three separate times: (1) In the public schools around the time they are likely to become sexually involved; (2) in the hospital during the prenatal care period; and (3) during enrollment in an adolescent family planning clinic prior to pregnancy and/or following pregnancy.

To meet the goals and objectives outlined above, the project will:

1. Integrate information about substance use and reproductive health in a human sexuality education program and present it in eighth grade classrooms in 19 public schools. Through this effort, the project will reach 6,500 inner-city male and female youth over a 3-year period and increase their understanding of the interrelationship of substance use and reproductive health.

2. Integrate information about substance use and reproductive health into a family planning clinic program by training five adolescent family planning counselors to identify, educate, counsel, and refer, as needed, sexually involved adolescents at risk for, or involved in, substance use/abuse behaviors. Through this segment, the program will reach 675 low-income sexually involved female adolescents over a 3-year period.
3. Integrate information about substance use and reproductive health into a prenatal education program by training a prenatal educator to identify, educate, counsel, and refer, as needed, pregnant adolescents at risk for, or involved in, substance use/abuse behaviors. This part of the program will target 350 low-income pregnant adolescents age 16 and younger over a 3-year period.

We expect that the teaching, role modeling, referral, caring, and support of project components on substance use, interjected into the lives of sexually involved youth during key times in the formative adolescent period, will result in reduced likelihood that sexually involved pregnant and/or parenting adolescents will either begin substance use or escalate experimentation into substance abuse. Such intervention conducted early in the reproductive careers of young patients will be more than cost effective, affecting their immediate experiences with pregnancy, birth outcome, and parenting, as well as their future childbearing.

EVALUATION: An extensive process evaluation will examine the manner in which project components are developed and staff are trained to implement them. Feedback on training and problems in programmatic implementation will be monitored. Outcome evaluation will consist of a research design in which the outcomes (avoidance or reduction of substance use/abuse) of clinical program participants and appropriate control groups will be examined. The comparison groups consist of: (1) A clinic group of young adolescent family planning patients who did not receive the outreach education program in the schools, (2) young adolescent family planning patients already enrolled in the adolescent clinic program prior to implementation of the special adolescent family planning counseling program, and (3) young prenatal patients interviewed prior to implementation of the prenatal program.

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CSAP/MCHB
SP-02132
07/20/90–04/30/95
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PROBLEM: Alcohol, tobacco, and other drug use among women of childbearing age in the United States is widespread and ranks as one of the more serious public health problems that urgently requires attention. The majority of substance-using women in Hawaii are not being identified. A recent prevalence study of women delivering at Kapiolani Medical Center showed that 4.5 percent had illicit substances in their urine. Those who appear to be at greatest risk include women of Native Hawaiian ancestry, women of Filipino ancestry, and white women, as well as women enrolled in the Medicaid program. The smoking of crystal methamphetamine appears to be unique to the State of Hawaii; crystal methamphetamine, marijuana, cocaine, and opiates appear to be the drugs of choice, although tobacco, alcohol, and other narcotics are also used by pregnant and postpartum women.

The complexity of the problem of perinatal substance use and the need for a variety of resources dictate a unified and cohesive effort among public, private, and voluntary resources in the community. The Baby Substance Abuse Free Environment (SAFE) Hawaii Demonstration Project proposes a multilayered, comprehensive approach with a strong public-private partnership to address the problem of perinatal substance use. Nongrant-funded components include a multimedia public awareness campaign and followup services for mothers and their infants up to 5 years of age. Grant-funded components include a statewide community council, aggressive outreach and community-based intervention, and professional education and training.

GOALS AND OBJECTIVES: Baby SAFE has established three principal goals to address substance use among pregnant and postpartum women in the State of Hawaii: (1) Increase the availability and accessibility of prevention, early intervention, and treatment services; (2) decrease the incidence and prevalence of drug and alcohol use; and (3) minimize the impact of substance use on the pregnancy, the newborn, and the family. The project objectives are to:

1. Develop a legislative plan of action to address gaps in service provision;
2. Train health care professionals to increase early identification and referral for treatment services;
3. Conduct a perinatal addiction prevention multimedia campaign;
4. Develop an outpatient treatment program for pregnant women;
5. Increase prenatal care utilization among substance-using women;
6. Provide case management with linkages to needed services;
7. Involve male partners in treatment efforts;
8. Improve birth outcomes of infants born to program clients;
9. Improve the quality of parent-child interactions by providing parenting education and skills training;
10. Provide child care and transportation;
11. Reduce referral to the child protective system and foster care placements; and
12. Enroll infants born to clients in a health tracking system.

METHODOLOGY: The Maternal and Child Health Branch of Hawaii's State Health Department will conduct a dual level intervention. One will impact upon the general public and the policymaking level through the Baby SAFE Hawaii Council activities. The council, with its broad-based membership, will focus on the issues of legal rights, professional education, program development, primary prevention, public awareness, and evaluation to activate change within the State and develop a unified State plan to address the problem of perinatal substance use.

The client level intervention seeks to develop a model community-based outpatient program for pregnant and postpartum women who use substances. The community outreach component builds on known grassroots networks (e.g., former drug users, community outreach workers, and community clinics). The intervention model will combine case-managed prenatal care with intensive individual and group substance abuse counseling, parenting skills building, and home visitation. The Baby SAFE Hawaii program will interface with Healthy Start, a paraprofessional home intervention program for high-risk families, to provide social support and enroll infants in a client tracking system until age 5 years.

EVALUATION: The project evaluation will include both a summative and formative evaluation to best assess the extent to which the project has reached its goals and objectives and the replicability of the project elsewhere. The process evaluation will focus primarily on the collection and sharing of information for program improvement to monitor the program implementation process and progress.

The impact evaluation will address the outcome variables stipulated for the Baby SAFE Hawaii Council activities and the Client Intervention Model. The council model will document current community status and council actions, measure increases in community awareness and resources, and measure increases in identification and referral to services. Data concerning the client level intervention will be collected to document predisposing factors, program actions, and the impact of reduced substance use, improved birth outcomes, and family functioning.

Postpartum Women and Infants in Hawaii

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CSAP/MCHB
SP-03514
09/30/92-06/30/97
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PROBLEM: The use of a smokable form of crystal methamphetamine, commonly referred to as "ice," has escalated sharply in Hawaii over the past 3 years and appears to be a drug of choice for many women, along with alcohol and cocaine. One outcome of this increased use is the birth of addicted infants to addicted mothers. Child Protective Services reports that the cases of mothers and infants testing positive at birth are being reported at the rate of 30 per month (November 1989). When an infant tests positive for drugs, the child is frequently removed from the mother by Child Protective Services. This early separation of mother and child has grave long-range consequences for the child, the mother, the extended family, and the community. The infant-parent bonding process that begins in the first hours of life is essential to the development of a healthy, well-adjusted person. When a child is deprived of this experience, there is a significantly increased potential for psychopathology and developmental and adjustment problems. Added to this difficulty, the prognosis for infants who are born addicted does not appear promising. There are growing indications of the problems these children are experiencing as they age, including delayed physical and mental development and behavioral and learning problems.

The mother who is deprived of her infant/children suffers as well. She may try to ameliorate the pain with continued alcohol and other drug use. There is a need for a therapeutic community-based alternative to the separation of these mothers from their children.

GOALS AND OBJECTIVES: The goal of this program is to preserve the positive mother-infant and mother-child bond and ameliorate the long-term effects of alcohol and other drug use by creating a safe, healthy, and secure family environment for the mother and child.

This project has three primary goals:

1. Increase the availability of drug treatment services for pregnant and postpartum women living on the Waianae coast of Oahu;
2. Decrease the prevalence of substance abuse among this population of women; and
3. Reduce the severity of impairment among children born to substance-abusing women recruited into the project.

The project objectives are to:

1. Increase the availability of drug treatment services to accommodate 56 additional clients over a 5-year period by establishing a community residence and targeting drug-abusing pregnant and postpartum women through outreach efforts and promotional activities. The residence will serve as an intake unit and referral point for drug abuse treatment for these women. The residence will also serve as a center for day program services for women and their infants.
2. Provide aftercare for mothers completing drug treatment. At least 50 percent of these mothers will be employed, will participate in an educational or vocational training program, or will function as full-time homemakers within 3 to 6 months after completing substance-abuse treatment.
3. Day program services—including prenatal care, parenting education, skill building, counseling, and other support services for pregnant and postpartum women and their infants (e.g., therapeutic nursery)—will be established during the first project year and will continue throughout the project.

Babies born to mothers enrolled in the project will show a 10 percent increase in birthweight and other birth indicators compared to a comparable group of infants born to nonparticipating mothers. There will also be a 10 percent decrease in impairment, measured by developmental tests.

METHODOLOGY: Project services (both direct and referral) will address the needs of pregnant and postpartum women residing in the target communities on the Waianae coast who have used methamphetamine during pregnancy. For first-time postpartum mothers in this target group, the project will offer two residential options as alternatives to separation from their infants. One residential alternative, available during the first project year and thereafter, is a community residence that will house five mothers and their infants. The second alternative, which will be developed during the first project year and will be implemented during the second year and thereafter, will place mothers and infants in the homes of members of the project's "Kupuna Corps" (elders), made up of carefully selected older women who wish to provide a nurturing role for these mothers and infants. While the length of residence in either of these options will be based on the individual needs of the women and their infants, we anticipate that the average length of residence will range from 3 to 9 months.

Postpartum women placed in either of the project's residential options, postpartum women living at home with their infants, and pregnant women will also participate in the project's drug treatment program and day program services. The day program will include services addressing parenting skills, personal development, mental health needs, leisure and recreational needs, and HIV education/testing/counseling. Services will also be implemented to facilitate infant-mother bonding and infant development. Medical services and transportation will be provided both for mothers and infants. Child care services and other services for the mothers' older children will also be provided. Aftercare services will include a weekly support group and monthly home visits for program graduates.

In addition, the program will provide services for fathers of the infants and for the mother's extended family, including a men's group and a family support group.

EVALUATION: Three primary data sources will be used for the process evaluation: (1) Interviews with clients and relevant program personnel, (2) direct observation of the program in operation, and (3) review of client data generated by the program.

The outcome evaluation will examine the following:

1. Maternal outcomes will include (a) reduced substance abuse among participating women; (b) increased participation in the quantity and quality of relevant support services used by participating women and their infants, male partners, and extended families; and (c) improved self-sufficiency among participating women.
2. Infant outcomes will include (a) improved birth outcomes among pregnant women enrolled in the project; (b) improved growth and developmental outcomes for the children of participating mothers through the first 2 years of life; and (c) appropriate use of pediatric preventive health services among participating mothers.
3. Family outcomes include (a) improved family preservation for women in the program; and (b) improved quality of parent-child interaction among participating women and their infants.

The basic methodologies to be used in the outcome evaluation include analysis of program data and measurements on the mother, child, and their interaction at regular intervals during program participation and in the followup period. The following are some examples of instruments and data collection to be used:

1. Measures at enrollment include a full sociodemographic profile, the Kempe Family Stress Checklist, the Adult Adolescent Parenting Inventory, and urine toxic screen results.
2. Measures during the prenatal period include timing and frequency of prenatal visits with private physicians and Medicaid, results of random urine toxic screens, and the number of eligible participants enrolled in the Special Supplemental Food Program for Women, Infants and Children (WIC).
3. Maternal measures at birth include peripartum complications (e.g., preterm delivery, abruptio placenta, eclampsia, infections, fetal distress); the Kempe Family Stress Checklist; and the Nursing Child Assessment Satellite Training (NCAST).

4. Infant measures at birth include gestational age, weight, length, head circumference, gender, and type of nursery care; the Brazelton Neonatal Behavioral Assessment Scale; Child Protective Services involvement; and the number readmitted within 1 month.

EXPERIENCE TO DATE: A strong core of senior elders or Kupunas from the community who are committed to providing cultural guidance will provide activities appropriate to the values and cultural norms of the Hawaiian community. Two clients have been enrolled for services at this time. Project staff have contacted at least 17 community agencies to describe the project and initiate collaborative agreements and/or include these agencies in the referral process. To date we have agreements with Comprehensive Health Care Center, Parent/Child Development Center, Child Protective Services, Kapiolani Women and Children's Medical Center, and Baby SAFE. Four members have agreed to serve on our advisory council, and the first meeting will be held this summer.

The project is almost fully staffed as of April 1993. Staff have participated in Healthy Start parent/child health trainings as well as training in a range of issues dealing with infant cardiopulmonary resuscitation (CPR), violent clients, drug-exposed infants, and substance abuse.

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SP-01593
09/30/89–05/31/94
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PROBLEM: The purpose of this project is to develop a model rural program designed to address substance use by pregnant and postpartum women and to reduce the number of infants who are affected by maternal substance use.

GOALS AND OBJECTIVES:

Goal 1: Decrease the use of nicotine, alcohol, and other drugs among pregnant and postpartum women.

Objectives:

a. All pregnant community/migrant health center (C/MHC) patients will be routinely screened for drug use during prenatal workup;

b. All patients with a positive screen, who remain under C/MHC care, will be counseled regarding the results of the screens; and

c. Patients with a positive screen following counseling will have a treatment plan established and be referred for appropriate treatment.

Goal 2: Improve the birth outcomes of women who used alcohol and other drugs during pregnancy and reduce the incidence of infants who are affected by maternal use of nicotine, alcohol, and other drugs.

Objectives:

a. The percentage of substance-using pregnant women who enter prenatal care in the first trimester will increase over the life of the project;

b. All C/MHCs will develop linkage agreements with local hospitals for the referral of no-care delivery patients; and

c. The percentage of low birthweight infants born to substance-using women will decrease over the life of the project.

Goal 3: Increase the availability and accessibility of prevention and early intervention services for substance-using pregnant and postpartum women and other women in the childbearing years who are at high risk, particularly low-income and minority women.

Objective: Establish education/support programs on substance abuse at each C/MHC.

Goal 4: Promote the coordinated participation of multiple organizations in the delivery of comprehensive services for substance-using pregnant and postpartum women and infants.

Objectives:

a. Have signed agreements with all six participating C/MHCs to implement the project for pregnant and postpartum women and their infants;

b. Improve the existing Idaho Substance Abuse Linkage Project (ISALP) to assure coordinated, comprehensive services; and

c. Create new linkages to eliminate any gaps in outreach, treatment, and aftercare/support services.

METHODOLOGY: The model links primary medical care resources—community and migrant health centers—with the State's substance abuse treatment facilities and other community support services. Sixty percent of all C/MHC patients have incomes below 100 percent of the Federal poverty level, and the centers serve significant numbers of migrant and seasonal farmworkers. Outreach and referral services will be expanded to reach more low-income and minority women. The services will include free pregnancy tests and referral of WIC and family planning clients to C/MHCs for screening and treatment. A case manager will be assigned to assure that each patient is assisted in obtaining the services recommended in the patient's treatment plan. A key element of this project is that the primary care provider becomes an integral part of the case management process, a particularly important role in isolated rural communities. Smoking cessation and drug education programs to promote prevention, early intervention, and positive alternative lifestyles will be held in each C/MHC service area.

EVALUATION: Evaluation will be done on both process and outcome. Data collected will be analyzed to determine what factors have an impact on birth outcome—specifically, substance use, trimester when prenatal care began, and quantity of case management services provided.

EXPERIENCE TO DATE: The C/MHCs are screening 1,000 prenatal patients annually. Approximately one-third of these clients are identified as substance users, the overwhelming majority being users of tobacco and alcohol. The most frequently used illegal drug is marijuana. Information regarding demographics, socioeconomic status, history of substance use, and history of physical and sexual abuse are compiled on the intake form. Information on birth outcome, substance use during pregnancy, and services provided to the client during pregnancy are summarized on the birth outcome form. All sites have hired case managers, who meet as a group quarterly. The project coordinator visits all sites several times per year to enhance collaboration and cooperation. An annual training seminar is held for all providers and has led to a marked improvement in program implementation. Project staff are active in various community coalitions, advocating for the treatment and concerns of clients.

Substance Abuse Prevention for Pregnant and Postpartum Women and Their Infants

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07/15/90–06/30/95
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PROBLEM: Substance abuse among the Nez Perce Tribe has become a crippling and chronic ailment to our communities, severely impacting our women and young children. Its effects have resulted in high unemployment, poverty, low educational achievement, domestic violence, suicide, and high-risk behaviors among an increasing younger population. The extended families, with multigenerational effects of substance abuse and cultural oppression, have become fragmented and dysfunctional. The traditional cultural values found in our birthing, childrearing, value teaching, and family systems which have been a strength for our communities are being lost.

Substance abuse appears in an increasing number of adolescent pregnancies, single mothers raising small children in isolation, and diagnosed fetal alcohol syndrome/fetal alcohol effect babies born to the tribe. The medical community on the reservation has become a point of distrust and lack of support for the Indian female. The Nez Perce Tribe has operated the Maternal Child Health Project since 1978, focusing on providing medical outreach to prenatal and postpartum women and infants served through Indian Health Service (IHS). IHS services are limited to clinical prenatal care and do not address the societal, mental, and emotional needs of the service population.

The tribe has witnessed a growing number of young mothers and young couples experimenting with crack, cocaine, and marijuana. The Nez Perce Futures Program is located on the Nez Perce Indian Reservation in Northern Idaho. This project seeks to identify high-risk children, women, and families who are experiencing dysfunction related to substance abuse and other social disorders, and to use a holistic approach to health service delivery for this target group which will empower individuals to assume responsibility for their bodies, behaviors, and attitudes.

GOALS AND OBJECTIVES: The specific aim of this project is to educate the target population and to provide a catalyst for behavioral changes that reflect a responsible and caring environment for pregnant women, unborn babies, and postpartum women and their infants. This will include the involvement and coordination of multiple tribal, State, and Federal programs and will increase outreach, preventive information, and active intervention with tribal families.

The project objectives are to:

1. Provide a management structure that enhances a comprehensive team approach to all health service delivery, including the identification and treatment of alcohol/drug addiction and related health problems.
2. Provide intervention counseling for drug- and alcohol-related trauma of women victims of domestic violence, spousal abuse, child abuse, or sexual assault; and provide remedial counseling, case management, and service needs to clients and family in financial/physical areas, health, counseling, and educational and vocational training/employment.
3. Provide an environment and service plan that includes traditional native cultural treatment modalities (cultural therapy) focused on the sacred circle of life and spirituality of being in harmony with one's self and one's creator, and using this belief in teaching prevention, changing cultural norms to reflect a message against substance use, and engaging in community prevention activities reflective of family values.

METHODOLOGY: This 5-year comprehensive approach begins with the hiring of the project director, who will supervise the Health and Human Services (HHS) Department of the Nez Perce Tribe. The HHS Department encompasses more than 35 distinct grants and contracts relating to health, education, children, and social services. Staff assessments, organizational effectiveness, structures, job descriptions, training, and career planning will be conducted by the staff with the HHS manager. This effort will provide more effective networking both within the tribe and with outside agencies. This reorganization includes two additional positions, the office manager and project coordinator, which will effectively enhance project coordination.

Two outreach counselors have been hired to identify high-risk, substance-abusing women and affected children; to develop, plan, and implement a project coordinator position with the existing program; and to develop and implement cultural therapy, including traditional birthing, childrearing skills, the extended family system's roles, and rites of passage. The counselors will address topics such as positive parenting skills, family systems, children of alcoholics, nutrition, grief work, anger management, self-esteem, life planning, goal setting, stress, and communications. A prevention specialist has been hired to focus on education and family and community education/prevention activities.

Further, the counselors will schedule fetal alcohol syndrome child finds, community training, assessments and referrals for treatment that includes family participation in the treatment plan, and assistance with transportation and child care needed to successfully complete health service implementation. Treatment services will be used in cooperation with the tribal Alcohol and Drug Program, the Indian Health Service, and State and private service providers. These services will be scheduled throughout years 2, 3, and 4.

EVALUATION: The evaluation will encompass both process and outcome indices. We will use a team approach, including the project director, MCH director, alcohol director, and an outside consultant with expertise in health and tribal communities. Further technical support for the design of measurement instruments will be contracted. The process evaluation will include extensive data collection of existing procedures, forms, referral processes, and interagency agreements regarding services to pregnant and postpartum women and their infants. Outcome evaluation will measure changes in behavior, attitudes, and birth outcomes; prenatal care; and changes in substance abuse as a cultural norm.

EXPERIENCE TO DATE: The Nez Perce Futures Program has completed phase 1 of its objectives in providing a structured Health and Human Services Department of the Nez Perce Tribe. This has clearly enhanced the delivery of client services and has provided a comprehensive team approach. In addition, a project coordinator has been hired to supervise implementation of documentation, policy development, and case management; this has kept this project on track and has provided the best possible environment for client services.

Case management is organized, indepth, and sensitive to the needs of the clients. Form development and utilization is ongoing and includes the following: (1) client intake form; (2) case management status sheet; (3) individual client/family plan, including financial/physical, health, counseling, and education/training client plans; (4) referral sheet; (5) birth outcome form; (6) client service tracking form; (7) monthly client summary listing form; and (8) management information form.

In addition, we are currently completing work on the following: *Nez Perce Future Policies and Procedures Manual,* revised exit form, preassessment/postassessment client form, parenting stress index, and computerized spreadsheet for data analysis.

Drug-Free Families with a Future
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SP-01225
02/01/90–01/31/95
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PROBLEM: An increase in the prevalence of substance abuse among pregnant and parenting women has become a major health problem in Illinois. The present service delivery system is fragmented and has neither the capacity nor the expertise to meet the multiple service needs of the target population. While the Drug-Free Families with a Future program provides comprehensive maternal and child health services through intensive case management, the epidemic proportions of the substance abuse problem among low-income, high-risk women has caught the Drug-Free Families with a Future networks with inadequate resources and expertise to meet the growing need.

GOALS AND OBJECTIVES: The following three goals and related objectives have been established for the Drug-Free Families with a Future (DFFWF) project:

Goal 1: Improve the birth outcomes of women who use alcohol and other drugs during pregnancy, and decrease the incidence of infants affected by maternal substance abuse.

Objectives:

a. By 1994, 100 percent of the pregnant women referred to the project will be screened for alcohol or other drug addictions.

b. By 1994, a comprehensive individualized care plan will be developed for 100 percent of those pregnant women who are case managed by the project; this plan must include, as a minimum, adequate prenatal care, family planning services, substance abuse services, Hepatitis B screening, and anticipatory guidance for HIV and sexually transmitted diseases (included in the Division of Family Health strategic plan objectives).

c. By 1994, at least 25 percent of the pregnant women served by the project will comply with the care plan developed for the course of their pregnancy.

d. By 1994, 100 percent of high-risk infants will receive the recommended number of public health nursing visits during which the Denver II Developmental Screening Instrument is administered.

Goal 2: Promote the involvement and coordinated participation of multiple organizations in the delivery of comprehensive services for substance-using pregnant and postpartum women and their infants.

Objective: By 1994, all project sites will establish formal referral patterns with medical treatment, public health, programs for children ages 0–3, case management, drug treatment, and social support providers in their catchment areas.

Goal 3: Decrease the incidence and prevalence of drug and alcohol use among postpartum women.

Objectives:

a. By 1994, 100 percent of the parenting women referred to the project will be screened for alcohol and other drug addictions.

b. By 1994, a comprehensive individualized care plan will be developed for 100 percent of those parenting women who are case managed by the project.

c. By 1993, at least 25 percent of the parenting women served by the project will comply with the care plan developed for the first year of parenting the index infant.

METHODOLOGY: By means of an intensive interagency effort involving the Illinois Departments of Public Health (IDPH), Alcoholism and Substance Abuse (DASA), Children and Family Services, and Public Aid, this program integrates services for substance-abusing women of childbearing age and their infants and increases the availability and accessibility of services.

In 1990, Illinois implemented the Drug-Free Families with a Future program, which is the program most directly involved in screening and referral for substance abuse treatment and provision of comprehensive case management. The purpose of DFFWF is to help substance-abusing pregnant and parenting women become free of drugs and to deliver healthy babies. To be eligible, a woman must be addicted to alcohol and/or other drugs, either pregnant or the mother of a baby under 1 year of age, and living in one of the target communities or counties funded to provide services. Both the client and infant remain eligible to receive services until the client is no longer addicted. Participation is voluntary, and a release of information form must be signed.

Drug-Free Families with a Future is funded with State general revenue funds through the Illinois Department of Public Health, and with Federal funds through a 5-year grant from the Center for Substance Abuse Prevention (CSAP). Cooperating State agencies are the Departments of Alcoholism and Substance Abuse, Children and Family Services, and Public Aid. The project is based in local departments of public health in areas outside of Chicago. Services are targeted to those Illinois communities having the highest infant mortality rates. In Chicago, DFFWF is based in community network coordinating entities (i.e., community-based service providers) which are subcontractors of the Chicago Department of Health. The 19 DFFWF sites receive grants to provide these services. Four regional perinatal networks in Chicago have DFFWF case managers who will assist women receiving services at those hospitals to establish contact with the appropriate DFFWF site.

Drug-Free Families with a Future services are delivered at each site through the Interagency Client Staffing (ICS) at each site. The ICS is comprised of a team that includes a DFFWF case manager and outreach worker, a substance abuse counselor from the local DASA-funded drug treatment agency, and case workers from the local offices of the Departments of Children and Family Services and Public Aid. The ICS encourages the involvement of multiple providers in creating and revising the client care plan, and it coordinates a diverse service delivery system to provide the client with comprehensive case management. The ICS team meets on a regular basis (generally monthly) to review the progress of individual clients and to coordinate service delivery efforts. Through the ICS team, clients and their infants are able to access the following community-based services: Prenatal care, child care, parenting classes, transportation, Medicaid, comprehensive medical services, the Special Supplemental Food Program for Women, Infants and Children (WIC), substance abuse treatment, 0–3 programs, vocational services, maternal and infant followup home visits, mental health counseling, and other needed services.

EVALUATION: The Center for Prevention Research and Development (CPRD) of the Institute of Government and Public Affairs (IGPA) of the University of Illinois at Urbana-Champaign and Chicago Circle was selected by the Request For Proposal (RFP) process in July 1991 to evaluate the DFFWF program. The IGPA has completed numerous State and Federal evaluations as well as policy research initiatives.

The principal investigator of the evaluation team is Robert D. Felner, Ph.D., Director, CPRD. The team includes a senior evaluation staff member and another team member. In November 1992, the project hired a data entry supervisor and five data entry staff to perform data analysis and data entry subsequent to implementing the evaluation.

EXPERIENCE TO DATE: The Evaluation Advisory Group was formed in July 1991 to provide input on the evaluation. The DFFWF case managers were selected as the most appropriate representatives to provide program information and feedback to the evaluation team. Numerous meetings of the Evaluation Advisory Group team, IDPH staff, and evaluation team have focused on program implementation and process evaluation. The group reached consensus that the following evaluation instruments would be used to collect data and to supplement client information obtained through Vital Records and the Case Management Information System (CMIS):

1. Client service record: Describes the referral process and monitors client compliance with individualized care plan through service utilization; it is submitted quarterly to CPRD.
2. Interagency Client Staffing (ICS) tracking form: Identifies ICS participants as well as client name, client type (pregnant, parenting, or infant) and status of care plan; it is completed at every ICS meeting and submitted to IDPH no later than 1 week following the meeting. According to DFFWF criteria and protocols for outreach and case management, (1) pregnant clients must receive an ICS at least bimonthly or more often if necessary, and (2) postpartum clients must receive an ICS at least quarterly or more often if necessary.
3. Client tracking system instrument/tracking form: Provides client referral source, demographic information, assessment of risk behavior for HIV, substance use/abuse assessment and infant information; it is submitted quarterly to CPRD. Data obtained from this instrument, coupled with CMIS data, will satisfy CSAP reporting requirements and eliminate the need for completion of additional forms by the five CSAP sites. This form was developed in a "bubble format" that will allow the evaluator to use a computer scanning device for aggregating the data.

In addition, seven variables have been identified that remain as part of the evaluation focus: (1) Client referral information; (2) basic client demographic information; (3) brief substance use screening; (4) basic pregnancy and delivery information (health-focused); (5) infant data (including growth data and complications due to maternal drug use); (6) service needs and utilization data; and (7) basic data recorded during the ICS meetings.

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SP-02680
09/01/91–05/31/96
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PROBLEM: Chemical dependency during pregnancy poses risks of adverse pregnancy outcomes for the mother and possible medical and social effects for the infant, in addition to other negative factors associated with substance abuse. Treatment services for women are scarce, and many programs do not provide the ancillary services that are needed to enroll and retain women in treatment.

Erie Family Health Center conservatively estimates that approximately 20 percent of its prenatal clients are substance users and that it is highly probable that the percentage is higher among women in the community who are not receiving prenatal care or who have young children.

GOALS AND OBJECTIVES: The project seeks to promote the integration of primary health care with substance abuse treatment for pregnant and postpartum women and for their infants. Specific project goals are to:

1. Promote the involvement and coordinated participation of multiple organizations in the delivery of comprehensive services for substance-using pregnant and postpartum women and for their infants;
2. Increase the availability and accessibility of intervention and treatment services for substance-abusing pregnant and postpartum women and for their infants; and
3. Decrease the incidence and prevalence of drug and alcohol use among pregnant and postpartum women.

METHODOLOGY: Erie Family Health, a community health center on Chicago's west side, serves as the lead agency in providing bilingual and bicultural comprehensive community drug treatment services to the target population, which is composed of minority women and their children. The *Primer Paso*/First Step program integrates prenatal, postpartum, and pediatric services with outpatient and intensive outpatient treatment, offering each woman the level of treatment appropriate to her need. The women are able to transition from one modality to another, completing treatment in the aftercare component. In addition to medical and drug treatment services, child care, family support, case management, nutrition, and family planning services will be offered onsite.

EVALUATION: The overall goal of the evaluation component is to capture both process and outcome data and to analyze these data to determine whether the project is meeting its goals and whether the planned interventions are successful, and to examine the factors that are related to success in the treatment of pregnant and postpartum women and their infants. The evaluation uses the logic model as presented by the Center for Substance Abuse Prevention.

The evaluation plan will be developed in three phases:

1. Development of evaluation protocols;
2. Collection of data and preparation of evaluation reports; and
3. Final analysis of the project's outcome.

The following forms have been developed in collaboration with the *Primer Paso* staff to screen and assess clients: Client intake, clinical assessment, clinical assessment update, pregnancy outcomes, summary of pregnancy experiences, summary of pediatric experiences, internal screening, and referral. In addition, the following evaluation instruments (forms) have been created: Chart audit, meeting observation, progress note, contract evaluation, provider survey, and blind urine test, as well as a service versus goal grid.

EXPERIENCE TO DATE: During its first year, the *Primer Paso*/First Step Project at the Erie Family Health Center hired the full complement of staff, consisting of the project director, two substance abuse counselors, a nurse midwife, a pediatric nurse practitioner, a social worker, a community care advocate, and an administrative assistant. Staff have participated in many inservice trainings and have attended several conferences. Project staff also have held several trainings for the providers and staff of the Health Center to provide project orientation and substance abuse education, and to enlist their support for the project.

Subcontracts and trainings have been completed with several community providers for the following services:

1. Esperanza School: Evaluation and treatment for children with developmental difficulties;
2. Family Focus: Respite care, child development activities, and parent education; and
3. Illinois Masonic Hospital: Obstetric care for high-risk patients, and delivery services and screening for children with development difficulties.

The *Primer Paso* clients are participating in individual and group substance abuse treatment sessions 3 days a week. They receive prenatal and postpartum services from the nurse midwife in collaboration with health center staff. The pediatric nurse practitioner performs pediatric exams, immunizations, well-baby care, and assessments for medical and developmental disabilities. Staff make home visits to clients and provide crisis intervention and referral when appropriate. The project offers both food and transportation. Family Focus staff are onsite four times a week to provide parent education, child development activities, and support to the *Primer Paso* staff.

A bilingual brochure explaining the *Primer Paso* program has been developed for distribution to all Erie Family Health Center clients. A letter and flyers were sent to community providers and other treatment programs, followed by an open house to inaugurate *Primer Paso's* renovated facility. The clients hosted a Thanksgiving dinner for their families and project staff. Christmas activities included a concert at the local high school, a tree-trimming party, a luncheon where clients presented their children with a stocking they had made, and a candlelight Alcoholics Anonymous walk.

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07/01/90-04/30/95
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PROBLEM: Each day, health care providers are treating a rising number of passively addicted infants who are born to substance-abusing mothers. At the same time, chemical dependence programs are experiencing a growing demand for services for pregnant substance-abusing women who have little or no means of financial support. Suffering from a complex web of medical, psychological, and social problems, these women and children present an insurmountable challenge to most service providers, who are often slow to recognize, reluctant to take on, and ill-prepared to successfully manage the problems of this high-risk population.

GOALS AND OBJECTIVES: The four primary goals of Project Hope are to:

1. Increase the availability and accessibility of prevention, early intervention, and treatment services for addicted pregnant and postpartum women and their children through 3 years of age;
2. Decrease the incidence and prevalence of alcohol and drug abuse among pregnant and postpartum women;
3. Improve birth outcomes of substance-using women who participate in Project Hope; and
4. Reduce the severity of impairment among children born to substance-abusing women by identifying and treating complications and sequelae produced by intrauterine drug exposure.

The project objectives are to:

1. Inform 50 appropriate public and private health care providers of the services offered through Project Hope and request referrals from these agencies;
2. Provide concrete services several times a week to help patients access Project Hope;
3. Develop professional rapport with 20 local caregivers in an effort to facilitate linkage to needed service resources for women screened by Project Hope staff;
4. Each year of the project, assist at least 50 women's health care professionals to obtain greater understanding of the signs and symptoms of substance abuse;
5. Provide two inpatient beds for detoxification and medical stabilization of pregnant and postpartum women;
6. Provide comprehensive, long-term, structured outpatient treatment services to facilitate abstinence from mood-altering substances and to promote family stabilization and improved family functioning;
7. Monitor drug and alcohol use of enrollees during participation in the project;
8. Identify women at risk for either pregnancy or substance abuse and provide early prenatal intervention;
9. Reduce the incidence of low birthweight and teratogenicity associated with drugs and alcohol;
10. Provide intrapartum and postpartum care;
11. Provide all children participating in the project with ongoing optimal pediatric care;
12. Support mother-infant and mother-child bonding and attachment;
13. Facilitate optimal development for each child participating in Project Hope; and

14. Reduce the potential for child neglect and abuse by providing mothers with an empathic treatment program including education, psychotherapy, and referral for practical assistance as needed.

METHODOLOGY: Project Hope is an intensive, long-term, outpatient treatment program for pregnant and postpartum drug-using women and their drug-exposed children ages birth to 3 years. We provide participants with consistent perinatal, pediatric, and psychological care in a therapeutic recovery-oriented environment. Program goals include abstinence from drugs for participating women, improved birth outcomes for the infants, and a better quality of life for all mothers and children.

Project Hope provides a range of therapeutic services for women and children, including chemical dependence counseling, detoxification, and group and individual therapy. Our therapeutic nursery provides developmentally appropriate care and activities for children. During the course of participation in the program we expect to help the women develop effective parenting skills, increased awareness of good nutrition, better capability in management of finances, and improved job skills.

Chemical dependence is a devastating problem and occurs within a set of complex life circumstances. Recovery requires commitment and hard work by both staff and participants. By providing our participants with long-term intensive treatment, we hope to help our women and children have a chance for a fulfilling, drug-free, healthy life. For this reason, we require participating mothers to make a minimum commitment of 1 year to the program, which may be extended for up to 3 years. Within this period, the level of involvement may vary from 5 days per week (in the beginning) to 3 days. Mothers are expected to attend all required program functions on time, as designated by the staff, and to accept responsibility for notifying staff of illness or other difficulties.

Participants are expected to maintain a commitment to a drug-free, recovery-oriented life, regardless of their level of involvement in the program.

EVALUATION: To determine project effectiveness, we will conduct a goal-oriented evaluation that examines the outcomes of the four major project goals. We will conduct both a process and an outcome evaluation. Data from mothers and the children will be collected prior to admission in order to establish baseline pretreatment measurements and also during the course of treatment. Data collected during treatment allow us to monitor how well we are implementing the planned program and to gauge our participants' progress.

EXPERIENCE TO DATE: Project Hope began operation on April 8, 1991. Since that time, we have served more than 30 women and even more children. We have learned that recovery is a long process, associated with major changes in areas of social and emotional functioning. We have observed a very strong relationship between commitment to recovery and an increased capacity to be an available, responsible parent. During my second year as director, we were able to extend our services to include the older siblings of our original target population. We also initiated a program of high school community service volunteers. This has been a very successful program which benefits both our children, who receive more individualized attention, and the volunteers, who receive a valuable educational experience.

We have also extended our educational efforts into the community. Many of our staff have shared our experiences at both local and national conferences, and we have hosted our own very successful conference, "Lives in Trouble: Perspectives on the Problems of Addicted Mothers and Their Children."

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CSAP/MCHB
SP-02812
09/30/90–05/31/95
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PROBLEM: It is well recognized that substance use/abuse during pregnancy can have significant adverse effects on the fetus and long-term negative impact on infant/child development. Substance-abusing mothers face tremendous obstacles to effectively parenting their children due to their own diminished physical and emotional capacities as well as the highly difficult behaviors exhibited by substance-affected infants. It has been well documented that pregnant substance abusers often seek prenatal care late in the pregnancy and display a lack of motivation to follow through on recommended care. Pregnant substance abusers are at higher risk for negative pregnancy outcomes such as early spontaneous abortion, preterm labor, giving birth to low birthweight babies, and abruptio placentae. Some of these negative outcomes could be ameliorated through prenatal care and education even if the woman does not discontinue substance use. Further, the ability to intervene early on behalf of the newborn is greater if the substance-abusing pregnant woman is at least known to health care providers.

There are many challenges to local service providers attempting to address the problem of pregnant/postpartum substance-abusing women and their children. One is simply developing intervention strategies that balance the focus of attention and resources on both the woman and her substance-affected infant. A more difficult challenge is designing interventions that will maximize access to services for a very unmotivated client group. Finally, developing a mix of services and the ability to coordinate and deliver them to this hard-to-reach population is a substantial undertaking.

GOALS AND OBJECTIVES: The project has identified three goals:

1. Decrease alcohol and drug use among pregnant/postpartum women served by offering intensive case management and treatment services;
2. Improve the birth outcomes of substance-using women i. the project and ameliorate the effects of maternal substance abuse on their infants by providing prenatal care; and
3. Identify infants born to substance-abusing mothers, assess levels of impairment, and provide appropriate early intervention and treatment.

The project will achieve these goals by implementing the following objectives:

1. Offer a multidisciplinary case management team, consisting of a substance abuse counselor and community health nurse, to serve substance-abusing pregnant and postpartum women and their children on an outpatient basis.
2. Coordinate services, including residential treatment opportunities, with other community agencies serving the target population, and develop a regular joint staffing mechanism for the client and all agencies serving her.
3. Offer one-stop shopping for pregnant and postpartum women, including prenatal care, substance abuse counseling, Special Supplemental Food Program for Women, Infants and Children (WIC) assistance, family planning services, and enrollment in Medicaid, if applicable; Healthy Babies clinic well-child health care services for neonates, older infants, and children; care for acute illnesses; and HIV testing and counseling, if indicated.

4. Provide in-home counseling and community health services at a level of intensity that will meet the clients' needs.
5. Provide primary prevention services to clients of the Family Planning Program and casefinding through its pregnancy testing and counseling component.
6. Expand existing Lake County Health Department (LCHD) Healthy Babies clinics and implement the Nursing Child Assessment Satellite Training (NCAST) system serving infants each year.

METHODOLOGY: The program methodology will follow the objectives stated above. Services, including residential treatment opportunities, will be coordinated with other community agencies serving the target population. A regular joint staffing mechanism for the client and all agencies serving her will be developed. An advisory committee of community service providers will be convened.

To achieve its goals, the project will:

1. Develop intraorganizational and interorganizational procedures to facilitate the joint substance abuse treatment/health care case management process, including data collection and client records requirements, intraprogram sharing of client information and protection of confidentiality, referral procedures, and day-to-day operating procedures;
2. Develop an advisory council composed of LCHD and community agency representatives to assist in planning, implementing, and guiding the project;
3. Institute regularly scheduled interagency staffings including the client and all services providers involved with her to plan, monitor, and evaluate the effectiveness of the interventions;
4. Provide home-based substance abuse treatment and health assessment, teaching, and support to 75 substance-abusing pregnant/postpartum women and their infants and children;
5. Annually, provide prenatal care to 45 pregnant women being served through case management;
6. Annually, provide home-based and onsite individual, family, and group therapy to 65 substance-abusing pregnant and postpartum women being served through case management;
7. Expand Healthy Babies clinics from one to three per week to be held in North Chicago, Waukegan, and Zion;
8. Annually, provide 104 indepth developmental assessments of substance-affected infants;
9. Using NCAST, annually assess parent interactions and skills for 60 natural parents and 15 foster parents caring for substance-affected infants, and provide specific training to upgrade those skills;
10. Train LCHD staff and representatives of other community agencies who are likely to have contact with the target population in basic identification, assessment, and initial intervention, and increase overall sensitivity to the issues of substance use/abuse during pregnancy; and
11. Annually assess substance use/abuse for 600 women served by the Family Planning Program who have positive pregnancy tests and 400 women entering the prenatal clinic who have not been assessed previously.

EVALUATION: The outcome evaluation will measure the impact of the project on both health and behaviors/attitudes. Health outcomes will be assessed by tracking:

1. Pregnancy outcome—Length of gestation at delivery, birthweight, and complications to the mother and/or infants assessed at birth; and
2. Infant and child health—Monitoring of growth and development, tracking of immunizations, and well-child examinations.

Routine in-home or clinic developmental assessments will be completed using the well-established Denver developmental tool. The Brazelton Neonatal Behavioral Assessment Scale will be completed during the infant's first 2 months. Followup assessments will be completed using either the Bayley Scales of Infant Development or the Battelle Developmental Inventory. The project will use the Addiction Severity Index (ASI) to collect reliable, valid, and standardized information regarding an individual's substance abuse behavior. Two tools to measure changes in self-esteem and personal stress also will be used. The NCAST

parent-infant interaction assessment tools will be used to evaluate the impact of health and parenting teaching on parenting skills of substance-using/abusing mothers, other caregivers, or foster parents.

EXPERIENCE TO DATE: There have been 215 referrals, and 120 women have entered the Start Right Now program since January 1991. Transportation and child care services have been in great demand and have proved to be most beneficial in decreasing barriers to treatment/health care.

The Start Right Now program has provided inservice training to community agencies concerning chemically dependent women. An interagency advisory committee of community service providers has been convened to establish an organized system of care using existing community resources. An LCHD internal steering committee consisting of supervisors from prenatal, community health nursing, family planning, healthy/well-baby clinics, and substance abuse counseling was established to facilitate an integrated system of care and casefinding.

The case management team of community health nurses and substance abuse counselors meets weekly to develop and implement an individualized family service plan for each family participating in Start Right Now. A multidisciplinary team meets monthly to discuss the status of project families.

Evaluation tools have been identified and a data base is being developed to analyze project data. Tools to measure self-esteem and personal stress are being used. Various forms and logs have been developed. Project staff continuously participate in training and education and have given presentations to community agencies.

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CSAP/MCHB
SP-02739
02/01/91–01/31/95
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PROBLEM: The impetus for developing the Addicted Women and Children (AWAC) Program of Allen County grew out of the increasing numbers of "crack babies" born in the county in recent years. Since the mid-1980s, the use and distribution of crack cocaine had become such a visible problem in the county that its urban center, Fort Wayne, had earned the unenviable title of "crack cocaine capital of Indiana." By early 1990, the crack cocaine problem had entered its second stage, with the identification of more than 30 crack-exposed babies born in Fort Wayne over an 18-month period.

Due to the lack of standardized protocols for completing toxicological screenings, the vast majority of drug-exposed (primarily crack-exposed) infants identified in the county are born to low-income women and women of color who are single parents. Defined as "children in need of services" (CHINS) by the Department of Public Welfare, the drug-exposed infant and any other minor children are removed from their mother's care and typically placed in foster care homes, pending either termination of parental rights or successful completion by the mother of a "parent participation plan" (including drug rehabilitation) for family reunification. The Department of Public Welfare has attempted to use existing drug/alcohol programs and services to assist these mothers in their reunification efforts. However, the paucity of drug/alcohol services geared to meet the needs of women, especially pregnant and postpartum women, resulted in very few success stories. Indeed, by early 1990, in one-third of all crack baby cases on file in the county, parental rights had been terminated or were in the process of being terminated.

The Addicted Women and Children Program of Allen County, a consortium effort, was developed to forge and formalize comprehensive interagency linkages to serve the target population of potential and current substance-abusing pregnant and postpartum women, especially low-income women, and their families. The AWAC Program consists of four components: (1) A 90-day residential treatment program for women and their preschool children, (2) 9 months of aftercare case management services for those completing the 90-day program, (3) a prenatal outreach and screening program at a local health clinic, and (4) a prevention program for at-risk families that includes drug/alcohol education seminars and support group structures.

GOALS AND OBJECTIVES: The AWAC Program has three goals:

1. Increase the involvement and coordination of multiple organizations in the delivery of comprehensive services to substance-using pregnant and postpartum women and their infants;
2. Increase the availability and accessibility of prevention, intervention, and treatment services for these populations; and
3. Reduce the incidence and prevalence of substance abuse among these populations.

Primary objectives for the residential treatment/aftercare components are to provide services to 40 women and up to 120 preschool children per year with the ultimate goal of reunifying the family unit, if possible. We anticipate that half of the women admitted will complete the 90-day program and that half of those completing the program will maintain their recovery during the 9 months of aftercare case management.

Primary objectives for the residential treatment/aftercare component are to: (1) Provide residential treatment services to 40 women and up to 120 preschool children per year; and (2) provide 9 months of aftercare case management, home aide assistance, outpatient counseling, and support group services to families completing the 90-day residential program.

Primary objectives for the prenatal component are to: (1) Identify and provide services each year to 20 substance-using pregnant women who need prenatal care; (2) increase the number of substance-using pregnant women who receive prenatal care in the first and second trimesters and decrease the number still using substances in the third trimester; and (3) increase the number of service providers who are knowledgeable about intervention services for pregnant substance users.

Primary objectives for the prevention component are to: (1) Increase knowledge among service providers about women's drug/alcohol issues and needs; (2) train service providers in how to deal with substance-abusing women in a manner that is sensitive to gender and culture; (3) increase knowledge about substance abuse among at-risk families; and (4) provide supportive environments for preventing substance use among at-risk families.

Overall, we anticipate providing services to 100 women and their families each year.

METHODOLOGY: Under the administration of the Fort Wayne Women's Bureau, the AWAC Program works with other identified community agencies and programs to provide project services.

Residential treatment component services include: (1) Drug/alcohol counseling (individual, group, family); (2) an 8-session life skills curriculum; (3) hands-on parenting sessions; (4) a 6-week nonviolent empowerment curriculum; (5) support groups, both in-house and community based; (6) child assessments; and (7) child development activities.

Aftercare case management services include: (1) Random urine screens; (2) transportation; (3) advocacy for social services; and (4) the option to attend a weekly aftercare therapy group at the residential program site.

Prenatal component services include: (1) Community presentations on substance use and pregnancy; (2) outreach to identify pregnant substance users in need of prenatal care; (3) screening, intervention, and followup with identified pregnant substance users; and (4) collection and collation of incidence and prevalence data on substance use among pregnant women at the clinic.

Prevention component services include: (1) Drug/alcohol presentations to community agencies focusing on women's issues and cultural sensitivity issues; (2) initiation and maintenance of a new support group for women each year; and (3) drug/alcohol education seminars for at-risk women.

EVALUATION: The process evaluation includes extensive data collection on units of service provided to clients in each project component. These data provide a basis for assessing the effects of differential services on client outcomes. The outcome evaluation includes a research design in which AWAC client outcomes in the residential treatment and prenatal components will be compared to relevant client outcomes in the year preceding the initiation of AWAC services. Statistical analyses will also be completed on client data from the residential treatment/aftercare program components to identify any factors that have value in predicting successful versus unsuccessful client recovery outcomes at the end of 1 year of services.

EXPERIENCE TO DATE: The women's treatment program at the residential treatment program site opened on September 19, 1991. With a capacity to serve 10 women for each 90-day stay, the facility was filled within the first week. To date, 58 women have been admitted and 29 have completed the 90-day program. Currently, the aftercare case manager has an active caseload of 19 women. The remaining 10 women have completed both the 90-day program and 9 months of aftercare case management services; 4 of these 10 women maintained their recovery during this period.

The children's program at the residential treatment program site opened in early January 1992, following extensive space renovations. The site now has the capacity to serve 28 preschoolers at one time; 50 children have been admitted to date. One of the most visible features of the children's program is the stability of structure and routine it brings to the children's lives and behaviors. This feature has made foster care placements at discharge from the residential program less difficult and traumatic for all concerned.

The prenatal outreach and prevention components have been active since March 1992. To date, the AWAC-supported prenatal outreach efforts have produced data on 34 pregnant substance users.

Project Together
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CSAP/MCHB
SP-02754
07/01/92–06/30/97
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PROBLEMS: Iowa, like all the surrounding States, has no transitional living facility to accommodate mothers who are in need of or have completed a primary chemical dependence treatment program. Because Iowa lacks such a transitional living center, mothers who have chemical dependence problems avoid or delay seeking treatment. They fear losing custody of their infants and children permanently by giving them to the Department of Human Services for foster care during their inpatient treatment, or they fear leaving them with friends or relatives whom they consider to be poor caretakers. If the mothers need inpatient treatment, their infants and children may be cared for at the House of Mercy as part of Project Together. At the completion of their primary care programs, the mothers will be reunited with their children at the House of Mercy.

All mothers and children in Project Together come from multiproblem backgrounds with long histories of drug, alcohol, and sexual abuse. Most are dropouts, homeless, victims of family violence, or have a significant other who is also a drug abuser. Most have been in trouble with the law as a result of their substance abuse. Clients are referred from social service agencies, substance abuse inpatient centers, courts, and correctional institutions from the entire State.

GOALS AND OBJECTIVES: This project has three primary goals:

1. Reduce the severity of impairment among children born to substance-using women;
2. Decrease the incidence and prevalence of drug and alcohol use among pregnant and postpartum women; and
3. Reduce the incidence of abuse and neglect among children of mothers who use alcohol and other drugs.

The project objectives are to:

1. Provide an environment where residents are compelled to confront their problems with substances;
2. Enable residents to maintain and/or obtain custody of their children;
3. Improve the physical, mental, and emotional health of residents and their children; and
4. Reduce dependence on welfare by providing and/or facilitating access to educational, job skills training, and employment programs.

METHODOLOGY: Project Together offers a comprehensive array of services for pregnant and postpartum women with children ages 0–5 years; these services are designed to move women toward self-sufficiency. Child care and a free medical clinic are available onsite. Each woman participates in a vocational/educational assessment and residents are required to attend weekly computer classes. Each child receives developmental or behavioral screening. Each mother is assigned a primary counselor who develops an individualized treatment plan, addressing issues pertinent to the resident. The counselor assumes case management responsibilities for the mother and her children to assure coordination and accessibility to all necessary services, including medical, substance abuse/chemical dependence treatment, child care, and other social/support systems.

EVALUATION: The primary focus of the process evaluation is the implementation and monitoring of service delivery to the client population. Information from each woman entering the program is obtained during the intake interview and focuses not only on demographic and life history questions, but also on the goals which each woman has for herself and her children. There are both quantitative and qualitative elements of the data collection.

The outcome evaluation focuses on the changes that women and their children make as a result of their participation in Project Together. Psychological and psychosocial information is collected to demonstrate the emotional and affective changes that occur as women move from psychological dependence to independence. Monitoring forms are used to capture the changes women make in the educational/vocational program.

The following are some of the measures used in the evaluation process: Battelle Development Inventory, Psychiatric Epidemiology Research Instrument (PERI), Partner-Relationship Scale, Parenting Opinion Questionnaire, and the Woodcock-Johnson Psycho-Educational Battery scales of independent and problem behaviors.

EXPERIENCE TO DATE: Project Together was established in April 1990 to address the needs of substance-abusing pregnant and postpartum women and their infants. Even though the project had been operating for a number of months, the Federal grant (initiated July 1, 1992) will create the opportunity to enhance some parts of the program and to hire additional staff to address specific objectives. As of November 30, 1992, the program has served 203 women. Project staff have continued to make frequent contacts with local and out-of-town social service agencies to describe the program and type of services offered, and referral agreements have been made with numerous agencies statewide.

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SP-03829
09/01/92-05/31/97
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PROBLEM: A review of the literature reveals that approximately 1 million women of reproductive age (15–44 years) in America are abusing substances. In Fayette County, which is located in the central part of Kentucky, it is estimated that approximately 7,900 of the 60,770 women of reproductive age are current substance abusers.

In 1988, there were 3,325 live births in the county, and a total of 5,672 live births (if the geographic area served by the project is included). Using an 11 percent prevalence rate from a report by the National Association for Perinatal Addiction Research and Education, it is believed that 624 of those births were to substance-abusing mothers. While slightly more than three-quarters of all mothers in Kentucky received prenatal care in the first trimester, less than half of mothers under age 18 received prenatal care during the same time period. Unmarried mothers also have a low rate of prenatal care during the first trimester (56.4 percent). Birth anomalies in 1988 reached a rate of 36.4 per 1,000 total live births, an increase of 193.5 percent over 1987.

A host of well-documented obstetric complications results from substance use during pregnancy. These include increases in preterm labor, preterm delivery, low birthweight infants in cocaine-abusing pregnant women, precipitous labor, abruptio placenta, and fetal monitor abnormalities. Neonatal medical complications that lead to intensive care have also been linked to substance use by the mother during pregnancy, as have long-term complications. While many new service delivery agencies throughout the central Kentucky service delivery area provide specific types of services to substance-using women and their children, to date, there has been no coordinated effort among these agencies to provide a consistent array of services to follow the women and their infants prenatally and postpartum. We believe that a coordinated effort such as the PRIDE Program will make needed services more available to substance-using or at-risk pregnant women in the service area.

GOALS AND OBJECTIVES: The project has three primary goals:

1. Promote the involvement and coordinated participation of multiple organizations in the delivery of comprehensive services for substance-using pregnant and postpartum women and their children;
2. Decrease the incidence and prevalence of drug and alcohol use among pregnant and postpartum women; and
3. Improve the birth outcomes of women who used alcohol and other drugs during pregnancy and decrease the incidence of infants affected by maternal substance use.

The project objectives are to:

1. Marshal existing community and university resources for a coordinated substance abuse prevention, intervention, and treatment program serving at-risk and chemically dependent pregnant and postpartum women in the central Kentucky area;
2. Identify pregnant women at risk for maternal, fetal, and infant harm resulting from substance use and other factors such as poor prenatal health care, poor nutrition, exposure to physical, sexual, and/or emotional abuse, untreated emotional disorders (comorbidity), and economic deprivation;

3. Initiate and provide ongoing medical, developmental, psychiatric, psychological, and social resources to intervene and treat complications (in women, children, and families) resulting from substance use during pregnancy and its associated social consequences; and
4. Establish a model substance abuse prevention, intervention, and treatment program (including prenatal and postnatal care for pregnant women) that can be replicated in a variety of communities with urban, suburban, small town, and rural populations.

We anticipate a maximum caseload of 150 women per year will be served during the 5 years of the program. Outreach efforts will be sensitive to the needs of African American and impoverished white Appalachian women as well as other minority groups in the area . At least 10 area agencies are expected to become active participants in referral of clients.

METHODOLOGY: Under the leadership of Bluegrass East Comprehensive Care Center, efforts to collaborate with the many area service providers will be initiated. Presentations to these agencies and other area organizations, meetings with interested staff, and area planning efforts will be followed by placement of project case managers at appropriate sites.

To improve case findings, women identified as being at risk or already using substances during pregnancy will be screened and admitted to the program if they are interested in receiving services. Throughout the course of pregnancy, each woman's prenatal care will be facilitated by her case manager, and she will be expected to participate in groups covering a wide variety of topics. A protocol for PRIDE mothers and babies is in place at the University of Kentucky Medical Center, where program mothers will deliver their newborns. Postnatal services include medical monitoring of the infants' developmental progress, group meetings for mothers, and continued case management. A variety of incentives will be offered to encourage continued program participation and monitoring of infants. Women may reenter the program if they become pregnant again.

EVALUATION: Evaluation will be an ongoing process beginning with assessment of clients for program participation. Data will be gathered at the first contact regarding the mother's use, abuse, or potential for use of alcohol or other drugs, using the addiction severity index. An extensive biopsychosocial assessment will also be conducted.

A series of urine toxicologies administered to participants soon after joining the program will establish baseline data on substance use, and urine toxicologies late in the pregnancy as well as at the time of delivery will provide data on decline in substance use. Birthweight, gestational age at birth, and other pediatric assessments will be performed on newborn PRIDE infants, and each will be followed for up to 2 years with regular developmental assessment. All results will be assessed in relation to the amount of prenatal care received and known substance use during pregnancy.

Evaluation instruments will include: The Addiction Severity Index, Beck's Modified Depression Index, the Addiction Research Center Adolescent Maturation Scale, the Modified Personal History Questionnaire, neuropsychological screening, developmental parenting assessment, an infant evaluation, and the American College of Obstetricians and Gynecologists Form.

EXPERIENCE TO DATE: The Bluegrass East Comprehensive Care Center has worked closely with the Department of Psychiatry of the University of Kentucky College of Medicine for more than 2 years to increase the range of services for pregnant and postpartum substance-using women. These efforts did not have a funding source until the fall of 1992. However, an array of services was made available to a small number of women due to the commitment of both agencies.

The experience of operating the small pilot program will allow the newly funded larger program to begin more quickly than would otherwise be possible. As of December 1992, the project was fully staffed, and staff members had been trained. Numerous contacts with interested area agencies had been made, and plans to increase contacts were in place. Almost 20 referrals has been received and were being processed. The evaluation tools and process were being finalized.

Collaborative Approach to Nurturing
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SP-02269
07/15/90–04/30/95
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PROBLEM: The prevalence of the use of crack/cocaine by pregnant women in the New Orleans metropolitan area is on the rise. One pilot study conducted at Charity Hospital in New Orleans in the prenatal clinic indicated that approximately 7 percent of the pregnant women who came to the clinic were positive when tested for the presence of cocaine in their system. This is believed to represent a very low estimate, since many women who deliver at Charity Hospital do not receive prenatal care and therefore would not have been represented in this pilot study.

Crack and cocaine are highly addictive substances which have been shown to have a major adverse effect on infants exposed in utero. Cocaine use during pregnancy has been associated with increased rates of abruptio placentae and stillbirths. At Charity Hospital, approximately 8 percent of babies born to cocaine users are stillborn and another 8 percent are premature. Cocaine use during pregnancy may lead to shortened gestation and impaired intrauterine growth. Cocaine-exposed newborns often have low birthweight, decreased length, and small head circumference for gestational age. Many cocaine-exposed newborns are fragile, disorganized, irritable infants who may have disrupted sleep/wake cycles. Unfortunately, in New Orleans, there is an absence of any organized system of health care, substance abuse/chemical dependency treatment, or social support services for chemically dependent pregnant women and their infants.

GOALS AND OBJECTIVES: This project has four primary goals:

1. Increase the availability and accessibility of prevention, early intervention, and treatment services for substance-using pregnant and postpartum women and their infants;
2. Decrease the incidence and prevalence of drug and alcohol use among pregnant and postpartum women;
3. Improve the birth outcomes of women who used alcohol and other drugs during pregnancy and decrease the incidence of infants affected by maternal substance use; and
4. Reduce the severity of impairment among children born to substance-using women.

The following project objectives have been established:

1. Based on identified service gaps, increase by 10 percent the availability and accessibility of services to women and exposed infants in the community by providing resource development, community and professional education, and collaboration with related agencies.
2. Based on identified needs, increase by 10 percent the resiliency/protective factors relative to substance use (i.e., social support, status, life skills, relapse prevention) among 60 pregnant and postpartum women by providing comprehensive, family-focused case management and support.
3. Improve the birth status of cocaine-exposed infants born to project participants, compared to birth status of similar infants as reported in the literature, by providing comprehensive, family-centered case management and development services.

METHODOLOGY: Under the leadership of Children's Hospital, the Collaborative Approach to Nurturing project is working collaboratively with many other community organizations to address the needs of cocaine-using pregnant women and their infants in the Orleans Parish area. The project demonstrates an effective

community-based model to promote the prenatal and postnatal health and well-being of mothers and their babies; educates cocaine-using mothers regarding the effects of the drug on themselves and their infants; and provides a comprehensive approach for infants which diagnoses and appropriately intervenes when developmental or physical abnormalities are identified due to prenatal cocaine exposure or postnatal parenting problems.

Each family is assigned a case manager who develops an individual family service plan. The case manager assures access to all necessary services, including medical, substance abuse/chemical dependency treatment, and social/support services. An important element of the program is ongoing evaluation of the mother-infant dyad, with appropriate treatment intervention and followup when problems are identified. In addition, the project provides educational presentations to key professionals and lay members of the community in an effort to increase knowledge and change attitudes about drug use. The resource development component of this project focuses on increasing the availability and accessibility of treatment programs and other needed services in the community to chemically dependent pregnant women.

EVALUATION: Evaluation tools include the Brief Symptom Inventory (BSI), the Brazelton Neonatal Behavioral Assessment Scale, the Bayley Scales of Infant Development, the Nursing Child Assessment Satellite Training (NCAST) Feeding Scale, and the NCAST Teaching Scale. The evaluation component includes tracking changes in terms of unmet needs, conducting an annual needs assessment, measuring changes in client perception, tracking sources of referrals, measuring changes in level of knowledge among presentation attendees, monitoring drug screen results and self-reports of abstinence, and evaluating birth outcomes of project participants by comparing to outcomes of nonintervention group samples.

EXPERIENCE TO DATE: All project staff have been hired to implement this project. There are currently 3 case managers serving 40 families. Two clients are now pregnant and 37 babies have been delivered; 21 of the current program clients have completed substance abuse treatment, 7 left treatment prematurely, and 10 have never entered the recommended treatment programs. Seventeen of the program participants are drug free, 5 are suspected by their case mangers to have relapsed, 10 are known to have relapsed, and 6 have never stopped using.

Sixteen presentations have been made, with 1,037 persons attending. Currently, 24 community members are serving on the advisory council, and 4 meetings were held in 1992. The client intake form has been modified to include the HIV status of mothers and to conform to the management information form. The developmental specialist has developed a videotape to be used as a tool for improving parenting skills; this tool will be distributed to other community agencies. A postnatal parenting group has been established, and, on average, 8 participants attend the weekly meetings. Case managers have established a support group in which participants will focus on their own health issues and chemical dependency. On average, 8 participants also attend this group each week.

Baltimore County Department of Health Model Project for Pregnant and Postpartum Women Substance Abusers and Their Infants
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CSAP/MCHB
SP-01478
02/01/90–01/31/95
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PROBLEM: Pregnant women who abuse drugs and alcohol experience several different types of difficulties: Miscarriage, stillbirth, spontaneous abortion, premature birth, poor intrauterine growth and development, low Apgar scores of their infants, abruptio placentae, premature rupture of membranes, impaired fetal oxygenation, and hypertension due to pregnancy. Neonates born to substance-abusing women continue to manifest serious problems postnatally, including neurological impairment, cognitive and behavioral problems, and mental retardation. The health risk increases as the infant leaves the hospital with a substance-abusing parent.

Care during and following pregnancy for women who abuse drugs requires a multidisciplinary approach by a team with specialized knowledge, skills, and services related to substance abuse, health care, and an array of psychosocial and economic support systems. The purpose of this project is to prevent and/or reduce drug use during pregnancy and promote optimal child care practices through early identification, assessment, education, case management, and followup.

GOALS AND OBJECTIVES:

Goal 1: Increase the availability and accessibility of prevention, early intervention, and treatment services for substance-abusing women and their infants.

Objectives:

a. Identify 221 pregnant and postpartum women substance abusers by January 31, 1991, and each year for the next 4 years; and

b. Implement early intervention for 221 pregnant and postpartum women substance abusers and their infants by January 31, 1991.

Goal 2: Decrease the prevalence of drug and alcohol use among pregnant and postpartum women.

Objectives:

a. Reduce the prevalence of drug and alcohol use among pregnant and postpartum women by 50 percent following participation in the project for 1 year; and

b. Provide intensive integrated intervention for 110 pregnant and postpartum women substance abusers and their infants by January 31, 1992, and during the entire project period.

Goal 3: Improve the birth outcomes of women who used alcohol and other drugs during pregnancy and decrease the incidence of infants affected by maternal substance use.

Objectives:

a. Reduce maternal morbidity due to maternal substance abuse by 70 percent for each year for the duration of the project; and

b. Reduce infant morbidity due to maternal substance abuse by 80 percent each year for the duration of the project.

Goal 4: Promote involvement and coordinated participation of multiple organizations in the delivery of comprehensive services for substance-abusing pregnant and postpartum women and their infants.

Objective: Develop and make fully operational by July 1, 1991, a coordinated, collaborative, multiagency community-based early intervention and followup program for pregnant and/or postpartum women substance abusers and their infants.

Goal 5: Reduce the severity of impairment among children born to substance-abusing women.

Objective: Implement a coordinated, comprehensive service delivery system for 221 substance-abusing women and their infants before, during, and after pregnancy by June 30, 1991.

METHODOLOGY: Under the direction of the Baltimore County Department of Health, Public Health Nursing Services, the Model Demonstration Project for Pregnant and Postpartum Women Substance Abusers and Their Infants (Project ANEW) uses a public health approach with pregnancies and births that are complicated by substance use and abuse.

Confidential home visitation services are provided by public health nurses, social workers, addiction specialists, and community outreach workers. Services include: Individual substance abuse counseling in the patient's home, group counseling, health education focused on the needs of pregnant and postpartum women and their infants, Special Supplemental Food Program for Women, Infants and Children (WIC) certification initiated in the home, parenting education, nutrition education, enrollment in Healthy Start and high-risk infant programs, and referral to inpatient and outpatient drug treatment facilities and other resources and agencies as indicated. Project staff use a multidisciplinary team approach to develop, implement, and evaluate comprehensive care/treatment plans. Case management and followup are provided for each patient.

The Department of Health, the Department of Social Services, and the Center for Substance Abuse Provention are the umbrella for the coordinated system. The model is designed to develop, implement, and evaluate a coordinated, collaborative, multiagency community-based program to provide early identification, intervention, and followup.

Program goals and objectives will be achieved through:

1. Conducting outreach activities;
2. Educating patients/families;
3. Educating the public;
4. Educating the professional community;
5. Performing random toxicology urine screening during the prenatal period, at the time of delivery, and during the postpartum period;
6. Developing a care planning process based on the patient's problems, resources, needs, and suitable treatment program;
7. Establishing linkage to resources in the community that include effective referral arrangements with detoxification, residential care, and delivery care agencies;
8. Designing and testing a computer-based case management information system;
9. Establishing an interagency council; and
10. Establishing a community network council.

EVALUATION: Evaluation will be accomplished by process and outcome analysis. The experimental design is basically a before and after comparison. No concurrent control is planned during the demonstration period. The following selected indices which will describe patient achievements:

Outcome measures:

1. Percentage of drug-positive women who are drug free at the time of delivery;
2. Percentage of drug-positive women at delivery who have been identified during pregnancy and treated; and
3. Percentage of infants of mothers who are current drug abusers or have a history of drug abuse during pregnancy who are immunized adequately and receive care according to specified standards.

Process measures:

1. Percentage of major health and social care providers who have correct knowledge of the project;
2. Percentage of major health and social care providers who have made referrals to the project; and
3. Percentage of drug-abusing pregnant women (estimated) in the community identified by the project.

When the project has reached a stable state of operation, a cost-benefit analysis will be carried out.

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CSAP/MCHB
SP-01158
02/01/90-01/31/94
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PROBLEM: Drug abuse and alcoholism are major social, economic, and medical problems that affect substance users, their families and friends, and communities. It has been estimated that 10 percent of the adult population in the United States are alcoholics or have severe alcohol-related problems (U.S. Department of Health and Human Services, 1981). Approximately 13 percent of the U.S. population are considered to be substance abusers who place further burdens on society through increased health problems, substance abuse-related accidents and injuries, and the negative socioeconomic consequences of abuse.

For pregnant women who use street drugs, the detrimental effects are well known. These women live shorter lives, have more extensive health problems, produce lower birthweight babies, and are at greater risk for HIV infection. Finally, these women tend to enter prenatal care late in their pregnancy and are often resistant to traditional medical practices.

GOALS AND OBJECTIVES: The program objectives are to:

1. Reduce the prevalence of low birthweight among high-risk pregnant women residing in the target community;
2. Reduce the incidence of alcohol and drug use/abuse among this population;
3. Reduce the prevalence of neonatal addictions in infants born to these women;
4. Assist new mothers in the development of effective parenting and nurturing skills; and
5. Ensure that new mothers refrain from the regular use of alcohol and drugs and, where appropriate, ensure that treatment services are made available and that the mother's progress is monitored.

METHODOLOGY: A full-time project director will be hired to administer the project. The project director will supervise the work of four case managers and eight neighborhood health advocates, a supervisory clinical addiction specialist, and four clinical addictions specialists. From within the target neighborhood, eight residents exhibiting leadership qualities will be selected and hired for the NHA positions and will be trained to implement the outreach, case management, and support services efforts of this intervention. The neighborhood health advocates will receive both formal classroom training and ongoing practical experience relating to all aspects of their duties and responsibilities. Two senior community health nurses and two social workers will be selected from the Baltimore City Health Department as case managers. They will be charged with the responsibility of supervising the eight neighborhood health advocates.

Simultaneously, one supervisory clinical addictions specialist and four clinical addictions specialists will be hired by the executive director and will integrate their activities into the overall program. The intent is to create an interlocking set of prenatal outreach, case management, and alcohol and drug treatment interventions. A clinical addictions specialist will be assigned to each of the four case manager/neighborhood health advocate teams and will work in partnership with them to implement the goals and objectives of this project.

The function of the clinical addictions specialist is to provide guidance and technical assistance to the case manager and the neighborhood health advocate; to accompany them on home visits for the purpose of assessing alcohol and drug risks; to develop a specific treatment strategy; and, finally, to ensure that the

alcohol/drug treatment plan is carried out effectively and is linked to the broader plan of prenatal care and support services.

Through the efforts of the neighborhood health advocates and the case managers, all 1,500 pregnant women living in the target neighborhood will be identified over a 3-year period through an intensive door-to-door canvassing strategy.

EVALUATION: Direct involvement of senior staff from the National Institute of Child Health and Human Development (NICHD) is a special feature of the Baltimore Project. NICHD staff will design and implement a comprehensive evaluation of the project as a whole, with specific focus on substance abuse issues.

Process evaluation will focus on compliance. A number of contacts between the case manager, neighborhood health advocate, clinical addictions specialist, and the participating subject will be established, based on the severity of the addiction. The number of contacts not complied with will be used as a process measure.

The outcome variables in this project include birthweight, admission to the neonatal intensive care units, specific neonatal morbidity (such as neonatal asphyxia), and neonatal addiction. Given the size of the population, we will be able to detect a 15 percent reduction in the low birthweight rate, a 20 percent reduction in neonatal admission, and a 25 percent reduction in specific morbidity.

Healthy Start for Kids and Moms Project
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CSAP/MCHB
SP-03737
05/15/92-04/30/96
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PROBLEM: Prince George's County has experienced an increase of drug use among pregnant women. The County's Infant at Risk Program reports that 30 percent of their referrals from the Prince George's Hospital Center's Nursery are related to prenatal drug use. If, as estimated, about 15 percent of pregnant women in Prince George's County use drugs, nearly 2,000 of the 13,109 county newborns are exposed to drugs during pregnancy. Of these, perhaps 200 (10 percent) show clear evidence of symptoms at birth or soon after birth.

Because of the psychosocial and medical needs of mothers and infants exposed to drugs, this group is an extremely vulnerable one. Mothers are in need of supportive services as well as drug and mental health treatment. Infants require a nurturing environment, health care, and early childhood interventions that address developmental deficits. The lack of support services and early intervention strategies for these infants and mothers results potentially in an increase in special education placements during the child's school career. The goal of the project is to provide intensive family support services to infants exposed to substances prenatally, and to their mothers, in order to maximize the potential for a successful school career and reduce the chances of referral to special education.

GOALS AND OBJECTIVES: This project has two goals:

1. Decrease the incidence and prevalence of alcohol and other drug use among pregnant and postpartum women; and
2. Reduce the severity of impairments among children born to substance-using women.

The project's objectives are to:

1. Decrease the amount and frequency of maternal use of alcohol and other drugs;
2. Improve maternal mental health;
3. Improve support systems;
4. Improve maternal health and nutrition;
5. Improve parenting skills;
6. Reduce the incidence of child abuse and neglect;
7. Improve child health and nutrition; and
8. Improve cognitive, neuromotor, and psychosocial functioning of the child.

METHODOLOGY: The school system administers and coordinates the project in collaboration with Prince George's Hospital Center, Prince George's County Health Department, Prince George's County Department of Family Services, and the University of Maryland.

A cohort of approximately 45 infants and their mothers is selected from among referrals to the project through a collaborative effort with the pediatric department of the hospital and the Infant-At-Risk Program of the Health Department. A family support plan is developed for each family, based on needs. The service delivery model borrows elements from national model programs designed for children who were exposed to

drugs during pregnancy and from both the Regular and the Special Education Early Childhood Education Programs in the Prince George's County Public Schools System.

The project serves the identified cohort of young children and their families over a 4-year period. The program has three overlapping phases. The first phase, from birth until about age 2, involves identification of infants and mothers, assessment of needs, development of a family support plan, and implementation of a home-based intervention model. The intervention model includes visits from community outreach workers, assisted by community aides/moms.

These teams are supervised by the community health nurse and the project coordinator, who is a licensed social worker. Families are assisted with general parenting skills and specific skills related to the needs of the substance-exposed infant, and are also assisted in obtaining pediatric services. The community health nurse and community outreach worker (a licensed practical nurse) complete the in-home assessment. This information is used to assist the collaborative team of family and project staff to develop the family support plan. The plan is then implemented in a systematic way with coordination and support from project staff. Priority is given to the mothers' concerns for concrete needs such as housing, food, clothing, and safety, as well as issues related to use of alcohol and other drugs.

The community health nurse and community outreach workers also address the psychosocial needs of the family. Mothers are offered opportunities to achieve a drug-free lifestyle through linkages with drug treatment and mental health services as well as support groups. Referrals and linkage to education or job training programs are also part of the program.

Pediatric care, including well-baby visits and developmental assessments, is provided by the developmental pediatrician of the Prince George's Hospital Center's Pediatric Clinic.

The second phase of the program has a school-based focus. At approximately 24 months of age, depending on the developmental level, the children will be included in a toddler group that meets approximately twice a week for half-day sessions at H. Winship Wheatley Early Childhood Center. Beginning at about age 3, the children will participate daily in a morning or afternoon session at the center. The toddler groups will be instructed by trained early childhood special educators and teaching assistants. Parent training and support groups will be another component of this program. A developmental curriculum that includes the best practices related to the education of substance-exposed young children will be used by the teachers. Project staff will continue to make home visits, to monitor the implementation of the family support plan, and to coordinate delivery of needed community support services during this phase of the project.

The third phase will involve transition to the Regular Early Childhood Education Program at H. Winship Wheatley Early Childhood Center. Project staff will provide training and support for the regular education teachers who work with these students. The ultimate goal for students is to function normally in kindergarten and not be referred to special education. Therefore, an important part of the project will be the development of curriculum and training materials for use by regular education early childhood teachers, as well as inservice training for these teachers.

EVALUATION: During the initial phases of the project, an evaluation team consisting of the project director, evaluator, coordinator, and the pediatrician from the Department of Pediatrics at Prince George's Hospital Center will refine the process and outcome components of the evaluation plan, which will be used to measure project outcomes and to monitor implementation of the project in participating community agencies. Revision of this outline will reflect input from project staff, the project officer from the Center for Substance Abuse Prevention, and staff from each of the participating community agencies.

The monitoring system will involve those concerned with design and delivery of the family support plan in a manner consistent with the project's defining commitment to coordinated involvement of participating agencies. Thus, rather than imposing a finished evaluation framework on agencies, their involvement in its development is part of the process to be evaluated.

The process evaluation component will document the procedures related to interagency involvement and cooperation, including both barriers and supports to such cooperation, and the strategies for its maintenance and enhancement over time. Staff involved in each project component will maintain detailed journals, which will be reviewed periodically by evaluators as well as staff. Recording the process strategies that are tried

will capture the essential features of how each project component was planned, implemented, and received by the mothers and infants participating in the program.

The outcome evaluation component will use a variety of assessment measures. These instruments will be used to gather baseline data and will be repeated on a regular basis to monitor progress related to the project objectives, with a particular focus on the development of the infants.

Cocaine Use in Pregnancy:
A Comprehensive Care Project

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CSAP/MCHB
SP-01941
07/01/90–04/30/95
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PROBLEM: Cocaine-abusing women and their young children are at risk for a host of medical and psychosocial problems. Access to proper prenatal and postnatal medical care, as well as to drug rehabilitative services, is often complicated by both system and personal factors. In addition, regular postnatal care of infants and young children exposed to cocaine and other drugs during the pregnancy period should emphasize developmental as well as physical factors. Often, such care is inadequate or unavailable, and can lack coordination and focus. Long-term outcomes for cocaine-using women and their offspring may be mediated by the provision of multidisciplinary services that are coordinated across agencies and providers through a continuous case management approach. Formal medical and developmental assessment of drug-exposed children, in combination with feedback to families and agencies who care for the child, may also improve outcomes in the children of cocaine-using women.

GOALS AND OBJECTIVES: The major goals of the project are to:

1. Identify and reduce substance abuse during pregnancy and the postpartum period;
2. Actively promote health outcomes in mothers and their young children who have been exposed to cocaine and other drugs during pregnancy;
3. Provide continuous case management services to all clients enrolled in the project; and
4. Evaluate and report on the project's ability to enroll, serve, and mediate outcomes in client mothers and children.

The project objectives are to:

1. Develop and implement a screening program at several major health care sites which will identify cocaine, alcohol, and other substance use during pregnancy;
2. Develop and provide case management services to cocaine-using women during pregnancy, with the expressed goal of reducing or eliminating substance use at the earliest time;
3. Monitor and decrease use of cocaine, other drugs, and alcohol during the postpartum period through continued community-based management and provision of drug treatment services, and improved health care access;
4. Enhance the adequacy and availability of prenatal medical care to this client population;
5. Provide specialized medical and developmental assessment and counseling to mothers during the perinatal period, with special attention to problems associated with adverse birth outcomes, issues of maternal health, nutrition, and family planning;
6. Measure the severity of physical, psychological, and developmental impairment among infants born to identified substance-abusing women, and concomitantly provide or improve access to necessary medical or mental health/developmental interventions;
7. Perform medical and developmental evaluations for children during the 36-month postpartum period; and
8. Use developmental evaluations to enhance parenting skills of mothers.

METHODOLOGY: Through collaboration between the Baystate Medical Center and Brightside of Springfield, 100 substance-using women will be identified and enrolled in the project. These women and their children will be monitored on a regular basis for agency contacts, medical care, postpartum assessments and care, and drug-related behavior or treatment. Using a continuous case management model, Brightside lay community outreach workers will provide direct service and will facilitate medical, social, and mental health interventions for these women and their children. Services will continue from the point of enrollment through the end of the child's third year of life.

Outreach efforts have been made to attract pregnant women who are identified as using cocaine and other drugs or alcohol during pregnancy from health care sites and other community agencies. Specific methods for achieving program goals include: (1) Active community outreach to providers and prospective clients; (2) detailed documentation of drug and social history for all enrolled clients; (3) provision of a variety of supportive and therapeutic services through case managers and coordinated referral to existing agencies or providers; (4) aggressive monitoring of prenatal, perinatal, and postpartum health problems in mothers and/or children to ensure prompt and thorough response; (5) close followup of mothers and children through (2) above and regular medical and developmental assessments of drug-exposed children, using a systematic and formal approach; and (6) dissemination of information on the nature and impact of the program locally and nationally.

EVALUATION: Both qualitative and quantitative approaches to evaluation will be used. These include:

1. Documentation of basic demographic, social, drug-related, and medical information for all enrolled clients;
2. Regular focus groups with key program personnel to identify strengths and weaknesses;
3. Systematic recording and/or ratings of drug use during pregnancy or the postpartum period, ongoing family risk factors, mother's mental health, children's development and behavior, and adherence to the program; and
4. Outcomes compared between women enrolled and women who refuse service or currently receive some other form of service related to drug and alcohol use.

EXPERIENCE TO DATE: Approximately 100 women and 85 infants have been enrolled in the program to date. Client retention has been better than expected, averaging approximately 55 percent for women and 75 percent for babies. Staff retention has also been excellent. An educational program for staff was developed and implemented during the past year. Project staff have given presentations and inservice trainings within the community, and through such formal and informal contacts, the program has received a steady flow of referrals and has maintained a presence within the community it serves. All evaluation tools, as well as the computer programs for data management, have been developed, and data are routinely being entered into the computer.

DayBreak Project: Day Treatment and Day Care

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CSAP/MCHB
SP-03765
09/30/91-07/31/96
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PROBLEM: The dramatic increase in infants exposed prenatally to alcohol and other drugs, and the record number of very young children abused or neglected by chemically involved parents, are stressing an already overwhelmed child welfare system to the breaking point. Consistent with national trends, Massachusetts has experienced dramatic increases in reports of abuse and neglect, abuse-related infant deaths, and numbers of children in foster care. These children are primarily young, often come in sibling groups, and are physically and emotionally impaired because of their parents' substance abuse.

Substance-exposed infants are likely to have health problems, to be difficult and demanding, and to be unresponsive and unrewarding. These vulnerable infants are born to mothers with physical, psychological, and relational problems of their own. Thus, the biologic vulnerability of these infants due to drug exposure is often exacerbated by inadequate caretaking. The challenge is to provide interventions to support the mother while protecting the infant and promoting positive mother-infant interaction and bonding.

National estimates indicate that one-half of the addicted mothers who are not in drug treatment programs lose custody of their children by the time the children are 1 year of age. Most addicted mothers are unable to participate in intensive drug treatment programs while retaining care and custody of their children. Many mothers do not enter treatment because they do not wish to put their children in foster care or are fearful of losing custody of their children. Many believe that they are bad mothers. The DayBreak Project will provide intensive, gender-specific day treatment for women that eliminates the child care barrier to participation and provides support and role modeling for positive parenting.

There are relatively few reports in the research literature on outcomes for day treatment programs for substance-abusing clients. This model of intensive, structured outpatient treatment or partial hospitalization has begun to emerge as a clinically sound, cost-effective alternative to inpatient treatment.

The trend toward comprehensive, case-managed mental health care includes day treatment as an important treatment alternative to be used differentially in a flexible continuum of care. Its use for the substance abuse treatment of pregnant and postpartum women is a new application of a promising treatment modality.

GOALS AND OBJECTIVES: The major goals of the project are to: (1) Decrease the incidence and prevalence of alcohol and other drug use among pregnant and postpartum women, and (2) reduce the severity of impairment among children born to women who abuse alcohol and other drugs.

The project objectives are to:

1. Decrease substance abuse in 400 women while they are receiving day treatment services;
2. Decrease the rate of relapse among these women during the 18-month followup period;
3. Improve the parenting skills of these women;
4. Promote mother-infant bonding;
5. Increase the number of infants who develop within normal limits;
6. Perform serial medical and developmental evaluations for children during the postpartum period; and
7. Provide continuous counseling/case management services to all clients enrolled in the project.

METHODOLOGY: Under the leadership of Brightside, Inc., a consortium of six agencies will provide an innovative program of chemical dependency day treatment and family support services for 400 low-income pregnant and postpartum women in the area of Springfield, Massachusetts. The client population is expected to be predominantly black and Puerto Rican.

The consortium members include public and private agencies which, together, provide a spectrum of services relating to child welfare, chemical dependency, mental health, obstetrics, and pediatrics. Providence Hospital will provide the DayBreak Project's day treatment program for chemically dependent pregnant and postpartum women. This two-phase intensive treatment program will be based on a therapeutic group model, supplemented by individual and family therapy and 12-step group participation.

The DayBreak Project will demonstrate the importance of treating chemically dependent mothers and their children through a specialized program of day treatment with coordinated family child care, parent education, and individualized family support. All services will be provided within a framework of gender specificity, empowerment orientation, cultural and ethnic relevance, and family preservation. Strengthening resiliency factors will be emphasized rather than focusing only on risk factors. The women served will be understood in relation to multigenerational cycles of addiction and abuse.

The DayBreak Project's development of a placement continuum within a "parenting partner" orientation may provide the early intervention necessary for optimal development of substance-exposed infants. Parenting education will promote positive mother-infant bonding and care. The family child care provided through the Springfield Day Nursery will also keep children visible in order to monitor their safety in dangerous drug culture environments. The Massachusetts Department of Social Services will provide or fund ancillary family support services.

Baystate Medical Center's Department of Pediatrics will provide serial developmental and pediatric assessments. Brightside, Inc., the lead agency, will provide interagency coordination, case management, mental health services for dual-diagnosis clients, cross-training of child care providers for foster care, and overall project direction.

EVALUATION: Smith College School for Social Work will conduct an independent evaluation of the DayBreak Project. The goals of the evaluation component are both to conduct a process evaluation and describe the outcomes for clients who participated in the project. Process evaluation will be emphasized in the first year of the project and outcome evaluation in years 2–5.

Specifically, the evaluation component will:

1. Monitor program implementation and interagency coordination;
2. Document the numbers of clients (mothers and infants) served by the project;
3. Assess the levels of substance use of project clients during day treatment and at 3-month intervals for at least 12 months after discharge (or dropout) from day treatment;
4. Assess the health and development of the index child of each substance abusing mother served, including documenting the prenatal care and day care received, the health status of infants born to clients served while pregnant, and the attachment achieved by each mother-child pair;
5. Assess the family risk and parenting skills of each mother served;
6. Monitor program participation and other service use by each client and index child from intake through at least 12 months after discharge from treatment; and
7. Document past and current social factors, including experiences of physical and sexual abuse, contributing to clients' use of substances and responsiveness to treatment.

EXPERIENCE TO DATE: As of December 1991, the project had identified and hired the staff at the six consortium agencies. Program development is continuing, and day treatment services began in April 1992. Family child care providers were recruited, and training proceeded as scheduled. Case managers began providing services in January 1992, with emphasis on casefinding. The evaluation plan was completed and other measuring instruments are being finalized. The logic model and the goals, objectives, activities, and milestones were completed in early January. Subcontracts have been completed.

Improving Pregnancy Outcomes of Substance-Abusing Mothers

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CSAP/MCHB
SP-01144
09/30/89–05/31/94
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PROBLEM: Little systematic attention has been paid to pregnant alcohol- and drug-abusing women and their offspring, on either a national or a local level. Specific services for this population are generally lacking, and access to traditional substance abuse treatment facilities is poor. Additionally, little descriptive data exist on the birth outcomes and followup of children born to substance-abusing mothers, particularly cocaine-abusing women, who have maintained a drug-free state during pregnancy and beyond.

All evidence suggests that the combination of substance-abusing mothers and alcohol- or drug-exposed high-risk infants is a potentially dangerous one. In spite of our understanding of the risks associated with drug and alcohol use during pregnancy and our understanding of mother-infant needs, however, there have been few systematic attempts to intervene with mothers and their infants.

GOALS AND OBJECTIVES:

Goal 1: Promote the involvement and coordinated participation of multiple organizations in the delivery of comprehensive services for substance-using pregnant and postpartum women and their infants.

Objectives:

a. Impact public policy in Massachusetts governing the treatment of pregnant drug- and alcohol-dependent women and their children;

b. Link maternal and child health care organizations with substance abuse treatment agencies and coordinate services across State agencies and provider service organizations; and

c. Work collaboratively with the Massachusetts Division of Substance Abuse in planning expanded services for addicted pregnant women.

Goal 2: Increase the availability of prevention, early intervention, and treatment services for these populations.

Objectives:

a. Assess barriers to early intervention and treatment throughout Massachusetts; and

b. Increase numbers of specialized early intervention and treatment components.

Goal 3: Decrease the incidence and prevalence of drug and alcohol use among pregnant and postpartum women.

Objectives:

a. Increase knowledge of professionals and the general public about pregnancy and addiction, services needed, and resources available; and

b. Increase the ability of maternal and child health care organizations and related health and social service agencies to identify substance abuse in pregnant and postpartum women, confront women with their diagnoses, and make appropriate referrals to treatment.

Goal 4: Improve the birth outcomes of women who used alcohol and other drugs during pregnancy, and decrease the incidence of infants affected by maternal substance abuse.

Objective: Provide substance-abusing pregnant women and their infants in long-term residential treatment programs in Massachusetts with expanded medical and child development services.

Goal 5: Reduce the severity of impairment among children born to substance-using women.

Objectives:

a. Assist alcohol- and drug-abusing pregnant and postpartum women in two residential treatment facilities in acquiring appropriate parenting skills, and enhance mother-child bonding by developing a model for teaching parenting skills; and

b. Retain women in treatment through the development of an aggressive aftercare and outreach system.

METHODOLOGY: Five diverse agencies are collaborating on this project: The Women's Alcoholism Program of CASPAR, Inc., which provides a residential program for addicted women and their newborns (New Day); Women, Inc., which provides a residential program for pregnant addicted women and their children; Health and Addictions Research, Inc.; the Fetal Alcohol Education Program of the Boston University School of Medicine; and the Boston Children's Hospital.

The project has four major program activities:

1. Service demonstration component at New Day and Women, Inc., which includes a parenting component; medical and developmental assessments at Children's Hospital for all infants born at New Day and Women, Inc., at 1 month, 6 months, 12 months, 18 months, 2 years, and 3 years of age; and aftercare services for mothers, infants, and other children, including a weekly mothers' support group and case coordination.
2. Access to treatment component, which includes the provision of training, consultation, and technical assistance to substance abuse treatment or prevention providers, maternal and child health care agencies, and other related social service organizations.
3. Policy and planning component, which includes a statewide needs assessment, and the formation of a large, diverse, statewide task force composed of lawyers, medical personnel, State agency representatives, substance abuse treatment or prevention providers, academicians, and other community decision-makers. The task force will be concerned with developing recommendations for statewide policy regarding intervention and treatment for pregnant addicted women and their children.
4. Systems coordination component, which includes development of a continuum of care statewide for pregnant and parenting substance-abusing women, including addictions treatment, prenatal and pediatric care, financial and housing services, child care, and children's services.

EVALUATION: The evaluation plan consists of both process and outcome evaluations of the parenting and training components and the task force. All infants born at New Day and Women, Inc., will have an assessment at Children's Hospital, which will include the use of the Bayley Scales of Infant Development. The Nurturing Program from Family Development Resources, Inc., Wisconsin, will be used as a basis for the parenting component, and the Adult Adolescent Parenting Inventory (AAPI) and Nurturing Quiz developed by them will be administered to all participants. The two parent-child specialists will be certified in the use of the Nursing Child Assessment Satellite Training (NCAST) feeding scales, which will provide another measure of changes in mother-child interaction over time. In addition, because so little research on outcomes of programs for pregnant substance abusers and their infants exists, extensive data collection on the mothers and their infants will occur. These data will be primarily descriptive.

Information on the parenting component will be measured in terms of knowledge and skills in child care and parenting gained, and enhancement of mother-child interactions. The outcomes of the training component will be measured in three domains: Positive changes in individual staff attitudes and knowledge; changes in programmatic policies and practices which encourage the treatment of pregnant and postpartum substance-abusing women (e.g., provision of child care during counseling sessions); and increases in the number of pregnant and postpartum substance-abusing women admitted to residential and outpatient programs. The impact of the task force will be measured in terms of allocation of increased funding for services to pregnant addicts by government and private sources, increased networking among maternal and child health care

providers and substance abuse service providers, and development of policy guidelines and statements addressing financial, liability, and access barriers.

EXPERIENCE TO DATE: The parenting program has been implemented at both sites, including visits to Children's Hospital. All children will be followed at Children's Hospital for 3 years. The aftercare/reentry program is also fully implemented and includes aftercare groups and home visiting. All graduates of New Day and Women, Inc., will be followed in aftercare for the duration of the project.

Other project accomplishments include collaboration with the Massachusetts Division of Substance Abuse to develop new treatment services, both ambulatory and residential, for pregnant and parenting women; a 90-person task force which is actively working through committees on legal issues, program/policy issues, and medical detoxification protocols; sponsorship of comprehensive legislation on prevention and treatment of maternal substance abuse; training of multiple maternal and child health and substance abuse providers throughout Massachusetts; systemwide coordination of new and developing projects for pregnant and parenting women; and statewide technical assistance and consultation to multiple and diverse individuals and organizations on issues of pregnancy and addiction. Several survey instruments were developed and administered to providers, and a training manual and parenting skills manual are also being developed. In addition, the following written documents have been produced: (1) *A Guide to the Detoxification of Alcohol and Other Drug-dependent Pregnant Women;* (2) *Making the Connection: Human Services for the Pregnant and Parenting Alcohol and Drug Dependent Woman;* and (3) *Towards the Development of a Model of Comprehensive Care for Pregnant and Parenting Alcohol and Drug Dependent Women and Their Families.* A new document, *A Guide to Residential Treatment for Pregnant and Parenting Chemically Dependent Women,* will be available in spring/summer 1994.

Mom's Project: Community-Based Outreach with Pregnant Women
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CSAP/MCHB
SP-03640
09/30/91-07/31/96
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PROBLEM: Current outreach and intervention efforts that target women in Boston who use alcohol and drugs during pregnancy have been limited traditionally to those receiving prenatal care. Since the majority of women who are actively using illicit drugs seek prenatal care late in pregnancy or deliver without any prenatal care, many women who use drugs never come to the attention of health care providers until they deliver. In a previous 5-year study of women in prenatal care, Dr. Amaro and colleagues found that 18 percent used cocaine and 27 percent used marijuana during pregnancy and that women who used drugs during pregnancy were more likely to present for prenatal care during the third trimester and to have fewer prenatal care visits. In addition, 75 percent of women who delivered at Boston City Hospital without prenatal care were identified at delivery as having used cocaine. Since October 1988, Dr. Amaro has been conducting a community-based prevention program to reduce risk of HIV infection, targeting pregnant women who are drug users, sexual partners of drug users, and prostitutes. The majority of women reached through the project (84 percent) were using drugs; however, only 27 percent were enrolled in a treatment program at the time we contacted them, and more than half were not receiving prenatal care. Thus, women at highest risk for substance use during pregnancy were not reached through programs that target women in prenatal care.

As a direct result of addiction, women who are using drugs are often marginalized from mainstream society, including available services. While the current system has treatment services for pregnant women, its effectiveness and accessibility are hindered by the lack of: (1) A mechanism for outreach, early intervention, and engagement of substance-using pregnant women into treatment; and (2) a mechanism that coordinates needed services, facilitates use of existing services, and provides ongoing tangible support during waiting periods to maximize treatment compliance and success.

GOALS AND OBJECTIVES: This project has three primary goals:

1. Increase the availability and accessibility of early intervention and treatment services for pregnant women who use alcohol or other drugs during pregnancy;
2. Decrease the incidence of drug and alcohol use among pregnant women; and
3. Improve the birth outcomes of women who used alcohol and other drugs during pregnancy and decrease the incidence of infants affected by maternal substance use.

The project objectives are to:

1. Increase accessibility of services by conducting street outreach to the target population;
2. Increase accessibility of services by developing and implementing collaborative agreements with agencies that provide treatment services for the target population;
3. Develop and implement a model of health education based on the empowerment model developed by Paulo Freire;
4. Engage 70 percent of contacted women in early intervention activities;
5. Engage 70 percent of project participants in needed services such as drug treatment, prenatal care, mental health services, health services, and/or social and legal services;

6. Increase utilization of needed health and social services by providing advocacy, transportation, babysitting, home visits, and food and clothing distribution;
7. Decrease substance use among participants through health education, active referral to substance abuse treatment, health and social services, case management, and support services; and
8. Decrease low birthweight, prematurity, and neonatal mortality among infants of women engaged in project activities.

METHODOLOGY: The program consists of four major service components. The outreach component, staffed by women in recovery who are indigenous to the communities served, identifies pregnant women during street and community-based outreach. The advocacy and referral component, after careful assessment of women's needs, connects women to the services they most need through "hands on" assistance and advocacy in accessing drug treatment, prenatal care, shelter, financial benefits assistance, and other services as needed. The support services component assists women with immediate needs (e.g., transportation, food, clothes, and babysitting) as an incentive to ongoing project participation and as a means of reducing barriers to using other health and medical services. The education component provides education/discussion groups to reduce social isolation, promote early entry into drug treatment and prenatal care, and support women in the early stages of recovery.

The project is staffed by a multidisciplinary bilingual team of community women experienced in working with low-income pregnant women who use alcohol and drugs. A mix of professionals and women in recovery provides the staff expertise to identify, assess, and support personal and group change among pregnant drug and alcohol users.

EVALUATION: The evaluation component is composed of both process and outcome measures. The process evaluation involves documentation of all program activities to develop and implement program objectives including content, location, time, attendance, difficulties, and successful strategies. Process forms document client participation, clients' subjective experience in the groups and in the project, and staff experience in the project. Outcome evaluation involves measures to assess whether the project achieved its stated goals. Birth outcomes among project participants will be compared to outcomes of women delivering at Boston City Hospital with inadequate prenatal care.

The approach to evaluation of program outcomes will be to monitor trends in individual behavior (e.g., using alcohol and drugs, keeping prenatal and drug treatment appointments, and attending project education/discussion groups) over time and to summarize the data by the intensity of program involvement and the impact on desired outcomes (e.g., decreased drug use, use of drug treatment and prenatal care, and improved birthweight among infants). An evaluation of the community education component will consist of a pretest/posttest design which will measure changes in knowledge, attitudes, and behaviors. Results will be analyzed in terms of the number or percentage of cases in which certain desired outcomes occur. These analyses will be performed on all cases and stratified by key characteristics (e.g., severity and type of addiction at entry into program, trimester of pregnancy at time of entry into the program, homelessness, and needed services at time of entry).

EXPERIENCE TO DATE: Program accomplishments include the following:

1. The project was fully staffed by March 1992, and an intensive staff training process was conducted on all protocols and procedures for client services.
2. Formal written collaborative agreements have been signed by 11 agencies, and staff have conducted outreach to 60 community-based agencies to describe project services and to initiate collaborative working relationships.
3. All clinical and evaluation protocols and instruments were pretested and implemented. A computerized client information management system has been developed and implemented.
4. Street outreach, recruitment, and intake of clients began in April 1992.

5. A total of 61 clients have been contacted through street outreach, and 41 clients have been enrolled as of December 1992.
6. More than 600 client service contacts were completed, involving advocacy, transportation, information and referral, and individual counseling.

During the period from March 1992 to September 1992, staff were trained to develop and implement our women's health education group methodology, which is based upon the principles of adult participatory education developed by Paulo Friere. Using this methodology, two ongoing women's health education and support groups, one conducted in English and one in Spanish, were established in June 1992 and have been conducted weekly.

Staff have participated in weekly clinical supervision sessions in which all new client intake, needs assessment, and histories are presented for collective input in the development of individualized service plans for each new client. Case progress reports are updated in weekly meetings. In addition, staff have participated in numerous interagency case conferences to coordinate services with other agencies to whom clients have been referred .as part of the comprehensive service plan.

Twenty-six of the clients enrolled gave birth prior to December 1992; 15 babies are due between January 1993 and April 1993. Outcome data on the clients enrolled during our first 12 months of direct services will be available in April 1993. The project has received positive media coverage through major local English and Spanish newspapers, and through radio and television.

All client assessment tools as well as program evaluation tools have been developed, pretested, and implemented. These tools include: Tracking form, intake form, indepth client history form, intake needs assessment form, client referral form, delivery form, client outreach form, agency/provider outreach form, client services form, educational groups form, 6-month followup form, and followup needs assessment form. All client data forms were revised and staff were trained to use all clinical and evaluation forms and evaluation interview protocols.

The client data collection system was computerized using FOXPRO 2. After this program was completed and installed, staff participated in 2 days of training on the program. All client data forms were reviewed and coded and data entry was fully implemented in August.

The major achievement in project evaluation has been to finalize and implement the computerized client data management system. The project's data base program developed in FOXPRO 2 is user friendly and is used for both program management and evaluation purposes. Developing data forms using computer screens and programs has been a time-consuming process because staff at all levels have participated in the review and critique as well as the training in the use of all data collection instruments. Line staff involvement was sought in an effort to ensure that data collection instruments would incorporate questions in a form that would not be intimidating to our target population. Translating every instrument into Spanish was begun in the fourth quarter and will continue in year 2 until completion. (This has become necessary because our Spanish-dominant clients do not read or write English.) In addition, several programs have been developed to facilitate reporting and followup of clients. Monthly client data reports will be presented at staff meetings as a management tool. Ongoing discussion of data collection and documentation issues is key to the success of the data collection process.

New Beginnings
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CSAP/MCHB
SP-02888
09/30/90–05/31/95
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PROBLEM: Perinatal substance abuse in the New Bedford, Massachusetts, area has increased over the past several years. The New Bedford Department of Social Services records indicate that at least four drug-exposed newborns are referred to them each month. In addition, nearly two-thirds of all cases involving suspicion of neglect and/or abuse (51As) reported to the New Bedford Department of Social Services involve drugs. New Bedford has the highest incidence of female intravenous drug users of childbearing age, compared to the rest of the Commonwealth. Sadly, New Bedford also has the highest number of women in the State with a confirmed diagnosis of AIDS.

Heroin, cocaine, and alcohol use during pregnancy have been shown to have a deleterious effect on infants exposed in utero. These adverse effects are widely documented throughout the literature. The Center for Human Services is creating a comprehensive and structured outpatient treatment program targeting the multifaceted needs and problems confronted by substance-abusing pregnant and parenting women and their newborns in our community.

GOALS AND OBJECTIVES: This project has three primary goals:

1. Program enrollment will increase through intensified community outreach;
2. Pregnant and postpartum women will decrease their use of drugs and alcohol; and
3. Prevention, early intervention, and treatment services will be available and accessible to pregnant and postpartum women and their infants.

The project objectives are to:

1. Develop and implement a client recruitment plan that targets community organizations. The focus of recruitment will be minority women who are in their first trimester of pregnancy.
2. Continue monitoring outcomes of all women enrolled in the program. Positive outcomes will be defined as (a) negative urinalysis, (b) high scores on Maternal Infant Bonding Scales, (c) normal gestation and birthweight, and (d) enrollment of women during their first trimester.
3. Continue to provide treatment services for pregnant and postpartum women according to guidelines for priority status. Priority service areas are (a) assessment within 2 days of referral by case manager, (b) intake and substance abuse treatment within 5 days of referral, and (c) early intervention and nursing services within 1 week of referral.
4. Develop and implement options for clients' transportation needs.

METHODOLOGY: The Center for Human Services, Inc., proposes to expand its program for heroin-addicted pregnant and postpartum women to include treatment for cocaine and alcohol abuse. Special emphasis will be placed upon Hispanic, Portuguese, and Cape Verdean minority and bilingual households, which comprise approximately 50 percent of New Bedford's population. Over the course of 5 years, we will serve an average of 100 women per year, with 60 percent minority or bilingual representation in the fifth year.

This project hypothesizes that high-risk, substance-abusing pregnant women present a window of opportunity for treatment because they wish to be good mothers. In order for treatment to be effective, it must be intensive and have a strong case management component, including regular home visits by case managers and nurses. We also assume that these women lack stable social supports; therefore, we have designed a comprehensive model that involves broad community education, street outreach, psychosocial treatment and education, medical services, postnatal care, and economic assistance. Case managers, nurses, and social workers will assist the substance-abusing pregnant and postpartum women in using all available program resources and information so they can develop increased self-reliance by the end of the program.

Another program component will focus on communitywide education and prevention through an extensive media campaign and through school- and community-based presentations (e.g., at churches and social clubs) to young people and adults. Included is a comprehensive treatment plan to educate and enlist the support of other human services, education, government, and health care providers, which will ultimately produce a more integrated social service network.

EVALUATION: Our process evaluation includes extensive data collection reflecting case management, provider, and community education services and client perceptions of weekly psychoeducational groups. Outcome data collected on patients and their newborns will determine the impact of cumulative program interventions. Some of the process evaluation measures being used include Nursing Child Assessment Satellite Training (NCAST), Home Observation Measurement of the Environment (HOME) Scale, Brazelton Neonatal Behavioral Assessment Scale, Apgar scores, gestational age, birthweight, and infant abnormalities.

EXPERIENCE TO DATE: At completion of year 2, the program has enrolled 86 women, with 33 percent of new clients enrolled during their first trimester. A total of 52 babies have been born (21 babies born during year 2). Data on 42 babies indicate 95 percent normal gestation and 81 percent normal birthweight. Community referrals have increased ,along with an increase in the number of minorities and an increase in the number of women using substances other than opiates.

Changes have occurred in the program enrollment format and case management tracking form. All referrals are directed to case managers who provide outreach to the women and facilitate enrollment with appointments for assessment, health services, and home visits. Case management tracking forms are to be redesigned to allow for efficient collection of data and expeditious recovery of information.

The Perinatal, Mothers, and Nurturing groups continue to provide support and education. Evaluations from participants were high and indicate that participants felt supported by group sessions. A three-session Infant Massage Group was cofacilitated by two nurses; the group permitted role modeling, education, and further assessment of mothers' level of comfort with their infants.

A full staff complement continues to provide a high level of service to clients and to work collaboratively with each other, community agencies, and physicians.

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CSAP/MCHB
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12/01/89-11/30/93
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PROBLEM: Chemical dependency adversely affects the health of pregnant women and their infants. The effects are both immediate and long-term and lead to physical, neurodevelopmental, nutritional, and social impairments. When present in a socioeconomically disadvantaged population, the effects of chemical dependency are even more apparent. The combination of factors further challenges the ability of the client to seek and obtain the appropriate health, educational, and social services.

Experience in infant mortality initiatives shows that the presence of a comprehensive, coordinated continuum of services that reach beyond clinic boundaries is needed to engage and retain the client in appropriate services. The service delivery must be linguistically and culturally appropriate, flexible in response to client need, and geographically accessible. Due to the recent and rapid growth of information on the effects of substances on women and infants, there is a heightened level of concern and anxiety among many professionals, but there remains a significant lack of information and experience in directly managing the care of pregnant substance abusers. A significant effort in professional education is required to create an environment that supports an appropriate approach to care.

GOALS AND OBJECTIVES: This project has five goals:

1. Promote the involvement and coordinated participation of multiple organizations in the delivery of comprehensive services for substance-abusing pregnant and postpartum women;
2. Increase the availability and accessibility of prevention, early intervention, and treatment services for substance-using pregnant and postpartum women;
3. Decrease the incidence and prevalence of drug and alcohol use among pregnant and postpartum women;
4. Improve the birth outcomes of women who used alcohol and other drugs during pregnancy and decrease the incidence of infants affected by maternal substance use; and
5. Reduce the severity of impairment among children born to substance-using women.

The project objectives are to:

1. Provide extensive professional education focused on the knowledge deficits and attitudinal barriers that impede treatment of pregnant substance abusers;
2. Develop a full range of substance abuse treatment services for pregnant and parenting substance abusers;
3. Provide expanded educational and social opportunities for pregnant and parenting women in areas such as nutrition, parenting, and infant-child development;
4. Provide prenatal, postpartum, and substance abuse treatment for all enrolled women;
5. Increase compliance in all appropriate health and treatment services for enrolled women and their infants; and
6. Provide periodic in-home assessment of the physical, neurological, and behavioral status of infants born to enrolled women.

METHODOLOGY: Providence Hospital currently provides perinatal and substance abuse treatment services within the local community. In an attempt to improve these services, a needs assessment instrument was developed to evaluate knowledge, attitudes, and beliefs of the professional staff regarding the effects on perinatal substance abuse. This tool was administered before and 2–3 months after the presentation of a 12-session training curriculum which addressed the needs and unique problems of the pregnant, substance-abusing woman.

In addition to staff training, the project is expanding the scope and coordination of services through the use of perinatal addiction coordinators who will provide counseling as well as oversee substance abuse treatment. An aggressive component in nurse case management will also be introduced to (1) provide information, referral, and advocacy regarding health, social, financial, and housing resources; (2) provide transportation to services as needed; and (3) conduct in-home assessments of biological, psychological, emotional, and environmental needs.

Finally, project staff will jointly develop and provide group activities that improve educational and social skills in maternal and infant nutrition, stress reduction, parenting, communication, and exercise. Through this coordinated approach, staff will have complimentary, nonoverlapping responsibilities in an attempt to identify and provide access to services while eliminating barriers that, historically, have have been problematic.

EVALUATION: The impact of the staff educational component was assessed using the needs assessment instrument in a pretest/posttest format. The process evaluation focuses on determining the full scope and intensity of services that were being provided to clients through tracking forms and daily activity logs which are being completed by nurse case managers and perinatal addiction coordinators. In addition, data are also gathered regarding services that are being accessed through other agencies. The outcome evaluation will consist of a comparison of birth and treatment outcomes of program participants and of those women who are identified and referred to the program, but who do not receive services or remain in treatment prior to delivery.

EXPERIENCE TO DATE:

1. Developed and implemented the needs assessment tool with nurses, social workers, and counselors in the inpatient and outpatient units of Providence Hospital, including perinatal, emergency room, and substance abuse treatment services.
2. Developed and implemented a 12-session training curriculum as well as accompanying resource guides and bibliography for professional staff.
3. Conducted meetings with Departments of Obstetrics, Pediatrics, Anesthesia, and Addiction Medicine for professional education and development of protocol for perinatal management of substance-abusing women.
4. Extended prenatal services to include referral to perinatal addiction coordinator for all women with a history of active substance use or a positive urine drug screen. Increased coordination and referral between perinatal addiction coordinators and nurse case managers.
5. Developed curriculum and introduced ongoing group education for pregnant and parenting substance abusers.
6. Compiled a data base of more than 8,000 staff/client interactions that document the scope and intensity of services being provided in several discrete areas (i.e., intake, assessment, education, advocacy, case coordination, transportation, counseling, documentation, treatment plan development) by nurse case managers and perinatal addiction coordinators.
7. Obtained certification of inpatient and community-based nurses in the use of the Brazelton Neonatal Behavioral Assessment Scale.

Project Catch the Hope
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07/01/90–06/30/93
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PROBLEM: National research on women in prison reveals that incarcerated women often have preexisting medical conditions and chronic illnesses when they enter prison. These reflect any combination of poor preventive health care, substandard living conditions, poverty, inadequate diet, and polysubstance abuse. These medical conditions are often compounded during incarceration. The Massachusetts Department of Corrections (DOC) has been unable to provide consistent medical care due to severe overcrowding and fiscal constraints.

The prison health services are unable to identify pregnancy early enough to allow a positive effect from medical intervention. Opiate-addicted women cannot detox from methadone to drug-free births when pregnancy is confirmed too late for safe weaning. There is a lack of coordinated prenatal and aftercare when pregnant women are released from prison. Service providers are challenged by the complexity of substance abuse compounded with other issues (mentioned above) among this population. Without the continuum of medical care and substance abuse counseling, these women lose ground in recovery from addiction, exacerbate their medical conditions, and jeopardize the health of their unborn infants. There is also a lack of followup services for infants born to drug-addicted women.

GOALS AND OBJECTIVES: The primary goals of the project are to:

1. Promote the involvement and coordinated participation of multiple organizations in the delivery of comprehensive services for substance-using pregnant and postpartum women and their infants;
2. Increase the availability and accessibility of prevention, early intervention, and treatment services for these populations; and
3. Improve the birth outcomes of women who used alcohol and other drugs during pregnancy and decrease the incidence of infants affected by maternal substance use.

The primary objectives are to:

1. Design and implement processes for collective functioning around project goals and objectives;
2. Develop and implement an assessment process and design intervention processes to address the diverse needs of the target population in order to triage into appropriate modality and level of care;
3. Provide a comprehensive health care plan that includes prenatal, perinatal, and medical care, substance abuse treatment, and medical management for all pregnant and postpartum women in Group B and for women in Group A (during incarceration); and
4. Monitor developmental progress of infants at birth and at 4, 8, and 12 months, and every 6 months thereafter during their participation in the program.

METHODOLOGY: Dimock Community Health Center (DCHC), Social Justice for Women, the Department of Corrections, and the Suffolk County Sheriff's Office collaborate to provide services to polysubstance-abusing pregnant women committed to the correctional institutions or in conflict with the law. The model for delivery of services is divided into two levels: One corresponds to services provided to women while at the correctional institution; the other corresponds to services provided to women who are in their home communities and in conflict with the law.

Level 1 services include medical management and perinatal care provided at the prison by the project and a privatization agency staff and at Beth Israel Hospital; methadone maintenance initiated by Boston City Hospital (BCH) and medically supervised onsite; substance abuse counseling and prenatal education provided by the project, and by staff from the Massachusetts Correction Institute (MCI) and from Social Justice for Women; and case management provided by project staff. Women who go into labor during incarceration deliver at Beth Israel Hospital.

Level 2 services represent community-based services for three different service groups. Participation in a group is determined by home residence upon release from prison and/or eligibility for alternative sentencing.

Group A is composed of women who are paroled or released directly to a home community outside of the catchment area. Group B women are paroled or released to residences within the catchment area or are women in conflict with the law who live within the area. These women receive services coordinated through a case management model that provides advocacy, referral, and followup for them and for their infants. The model of care also includes home visits and early intervention care for their infants. Group C is composed of women who qualify for alternative sentencing at the Neil J. Houston House. This group receives the most comprehensive care. They receive the benefits of a residential treatment program with 24-hour coverage. An intensive substance abuse program and early childhood intervention are also available onsite. Prenatal and pediatric care are provided by DCHC. Women who complete their obligation are transitioned to community reentry and a followup aftercare program.

The continuity and comprehensive array of project services are assured through a case management system which bridges all of the agencies involved in care for the women. The perinatal case manager or a "Community Mom" develops a specific treatment plan in collaboration with each woman that describes the goals she will achieve while participating in the project.

The Early Childhood Intervention (ECI) Program provides comprehensive, integrated early childhood developmental and parenting services through assessments and individual and group meetings. Group B and C participants begin their involvement with this program when their infants return home from the hospital. ECI staff also visit homes to continue professional monitoring of infant development.

The project has implemented a unique model using specially trained peers, known as Community Moms, who act as case managers for women in group B. The Community Moms provide ongoing developmental and parenting support through providing home visits, assisting women with reintegration into their home communities, accessing services, and related support.

Project Catch the Hope represents a cost-effective expansion of existing health and human services at Massachusetts' only prison for women, Massachusetts Correction Institute-Framingham, and at the Neil J. Houston House, a residential treatment program for incarcerated pregnant women who abuse drugs. The Neil J. Houston House is a national model that offers these women an alternative to prison.

EVALUATION: The evaluation design compares the three groups of women (A, B, and C) who are self-selected samples. The process evaluation documents in detail the development and implementation of the service model by collecting quantitative and/or qualitative data at each level of program activity. The outcome evaluation addresses the extent to which the project achieves outcome objectives. Outcome data are more readily accessible for groups B and C; data available on group A are restricted.

Project Second Beginning
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CSAP/MCHB
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PROBLEM: Project Second Beginning enables specialty agencies in health care, maternal and child health, alcohol and drug counseling, social welfare, housing, and vocational services to provide a network of services for 100 women and their infants in highly impacted substance-abusing metropolitan/suburban areas. This project will provide unique services which are currently lacking in the area. The State of Massachusetts is among the States with the highest infant mortality rates in the country. This mortality has been directly attributed to a high incidence of "crack babies" and at-risk pregnancies related to substance-abusing and HIV-positive mothers.

There is a critical need to develop more services and to expand current services for this difficult-to-reach, high-risk population of substance-abusing pregnant and postpartum women and their infants. Project Second Beginning, funded by the Center for Substance Abuse Prevention (CSAP), will create a unique regionwide multicomponent comprehensive collaborative service delivery program. The purpose of the project will be to provide outreach to high-risk women who are not receiving the attention and services they need. Due to funding limitations affecting outreach and intervention for this critical population, few comprehensive services exist. This situation is further complicated by their drug dependency and medical status, fear of legal implication, and lack of support and advocacy systems. The majority of addicted women do not seek prenatal care, and therefore increase the potential for fetal alcohol or drug syndrome. The majority of clients are adolescent females in both prenatal and postpartum periods, and they are viewed as an extremely high-risk population with few medical or treatment advocates and/or alternatives.

GOALS AND OBJECTIVES: The project has identified the following goals and related objectives:

Goal 1: To promote the involvement and coordinated participation of multiple organizations in the delivery of comprehensive services for substance-abusing pregnant and postpartum women and their infants.

Objectives:

a. Bring together and coordinate systems that contact and serve these women within the Metro South/West Region, an area recognized as lacking such services but high in treatment needs.

b. Formulate collaborative networks for planning consultation and case conferences regarding services to high-risk women and adolescent females, especially those who are impoverished, minority, or bilingual.

c. Develop a collaborative relationship with two district attorneys to assure treatment sanctions for pregnant substance-abusing women to enhance medical, psychological, and vocational services.

Goal 2: Increase the availability and accessibility of prevention, early intervention, and treatment services for these populations.

Objectives:

a. Augment early identification of and specialized outreach to pregnant women, both adult and adolescent, who are experiencing, or at risk for experiencing, alcohol and other drug problems.

b. Provide assessment/evaluation to these women and their infants to determine sound treatment goals and/or referral to specialized resources (i.e., medical, psychological, social welfare, and vocational resources).

c. Provide specialized outreach, intervention, and substance abuse treatment services to approximately 100 high-risk pregnant or postpartum substance-abusing females per year for a total service delivery of more than 500 clients over a 5-year period.

Goal 3: Decrease the incidence of drug and alcohol use among pregnant and postpartum women.

Objectives:

a. Within 5 years, decrease the total use of drugs and alcohol of enrolled pregnant and postpartum women by 75 percent.

b. Within 5 years, enhance the self-esteem, self-sufficiency, and independence of enrolled pregnant and postpartum women by 75 percent.

METHODOLOGY: Project Second Beginning will serve both adolescents and adults for an 18-month period, thereby serving approximately 500 women over the course of the grant. Contact will be initiated in the prenatal phase (third to sixth month) and continued through delivery and followup for 12 months or thereafter. During the first phase of the program, the focus will be on: (1) Medical care, prenatal care, and specialized substance abuse intervention (e.g., detoxification), followed by specialized services in those areas; (2) individual, group, and family counseling; (3) child care and vocational training; (4) alcohol and other drug counseling; (5) GED education; (6) parenting skills training; and (7) community networking for housing and financial assistance. Throughout the project, the aim is to promote abstinence, develop self-esteem, enhance parenting skills, achieve economic self-sufficiency, and promote connection with and reintegration into families and communities.

The project will operate 5 days a week at several sites throughout the metropolitan southwest region, with referral systems for emergency situations. Affiliations with medical systems allow for proper prenatal care and/or chemical intervention to prevent any complications and to ensure that advocacy, relationship building, and a support network are available to mother or child.

EVALUATION: The evaluation design will both document achievement of the planned program intervention process and measure the effects of the intervention outcome. Careful ongoing assessment will be conducted on all phases of the project, using process, outcome, and impact measures to evaluate all program components of service delivery in terms of project effectiveness and potential for program replicability.

Project goals and objectives will be implemented by a defined process of intervention and delivery offered to mother and child. These will be translated into delivery by an individualized service plan developed for each client. Each plan will list the objectives addressed specifically to the individual, stating the desired goal/task/knowledge/skill to be accomplished, outlining the method and timetable, and stipulating the method of evaluation to be used. The personal action plan encompasses three phases of delivery: Intervention, treatment, and extended service/aftercare.

The outcome evaluation will employ a pretest/posttest design to measure the effects of the program interventions. Each client will be assessed throughout the project, using standardized testing on personality, substance use, and academic and parenting skills. Testing will be conducted by project staff and a program psychologist/evaluator at the onset of treatment and at 6-month intervals thereafter until completion of treatment.

The following are some of the measures which will be used in the evaluation: Brief Symptom Inventory (BSI), Index of Self-Esteem (ISE), Modified Addiction Severity Index (ASI), Personal Network Matrix (PNM), Tests of Adult Basic Education (TABE), and the Harrington O'Shea Career Inventory. These tests will be administered at intake and at 6-month intervals until termination.

EXPERIENCE TO DATE: The project has just completed its first year of operation, using a multidisciplinary team of seven full-time and part-time professionals. More than 100 clients have been in the program and have received various levels of comprehensive case management services. From the onset of referral through careful assessment/evaluation and treatment planning, positive alternatives through case

management are offered these clients. Our strong intercollaboration and affiliations with various medical, substance abuse treatment, social welfare, educational, and vocational systems allows optimal service delivery to be offered in 43 towns and cities. The program has six sites within the Metro-South/West Region where women and their infants will be served, including our Attleboro office, the Metrowest Medical Center Specialized Women's Detox Program (Framingham), Lexington Addiction Recovery Center (ARC), Day Treatment Program, Health and Information Referral Service (Marlboro), our Sudbury office, and King Philip Counseling Center (Wrentham). Project staff work with these programs in an integrated way to ensure coordination of services. In addition, project staff offer consultation, training, and case collaboration to our affiliates to augment service delivery throughout the region. Underlying the process of case management is strong advocacy on behalf of clients through integrated systems, affiliations, and incorporation.

A very organized record-keeping system has been developed. The evaluation plan has been established, a data base is being developed, and initial analysis of client progress will begin in the near future. The project is presently in the second year of the grant and continues to develop the process of improving service delivery in order to impact substance-abusing pregnant and postpartum women within the Metro South/West Region outside of Boston.

Project Window: A Substance Abuse Day Treatment Program

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CSAP/MCHB
SP-04739
05/01/92–04/30/97
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Janet Y. Johnson, M.Ed.

PROBLEM: Within the existing service delivery system in Massachusetts, there are currently only two options for pregnant women completing an inpatient detoxification program: A residential program (frequently not permitting children) or a minimalist outpatient counseling program. These choices are even more limited for impoverished, inner-city women of color.

One other critical factor that impacts substance-abusing women and particularly women of color is the increasing incidence of HIV infection. According to statistics, more than 100,000 women carry the AIDS virus. These women have given birth to approximately 3,000 children who survive today, 40 percent of whom are predicted to be HIV positive. To address this epidemic, substance abuse services must offer women effective alternative programs to help them get "clean" and maintain abstinence.

GOALS AND OBJECTIVES: The project has seven primary goals:

1. Decrease the incidence of substance abuse;
2. Improve birth outcomes;
3. Maximize infants' growth and development;
4. Promote integrated and coordinated treatment services for women/children;
5. Strengthen parent/child bonding and family support;
6. Promote continued successful recovery and reentry into outpatient programs through aftercare; and
7. Implement an evaluation plan.

The program objectives are to:

1. Provide a third, culturally specific alternative to residential or outpatient treatment;
2. Identify and provide medical care and other services to pregnant, substance-abusing women;
3. Monitor and maximize infants' growth and development through decreased exposure to illicit substances in utero and postnatally, and implement therapeutic interventions as needed;
4. Implement a case management/staffing model;
5. Facilitate positive mother/child interaction, strengthen the family unit, and promote reconciliation with significant others;
6. Provide a gradual transitional reentry program; and
7. Collect baseline client data that include qualitative and quantitative data about program development.

METHODOLOGY: Project Window provides a therapeutic milieu designed to meet the unique developmental needs of the pregnant and postpartum woman. The project includes health services, social/life skills, early childhood intervention, child care, and aftercare.

EVALUATION: The evaluation of Project Window will provide a concise description of the program as well as an assessment of issues arising during program implementation. The process evaluation, which will include both qualitative and quantitative data, will describe the program components, the target population, and the program staff and service providers. The outcome evaluation will assess the extent to which the program achieved its outcome objectives. Specifically, the outcome evaluation will address maternal outcomes and infant outcomes, and will measure the extent to which clients utilize services.

The evaluation will follow all women who enter Project Window for treatment, and their infants. Over the course of the study, we will enroll and follow 75 women; fifty-seven will complete the entire program, and 51 will complete the program and participate in aftercare for 12 months. We will have incomplete data for the 18 women who do not complete the day treatment program and for the 6 additional women who do not complete the aftercare program.

EXPERIENCE TO DATE: In its first 6 months, Project Window hired staff, committed to regularly scheduled advisory team meetings, and developed intake forms and contracts, a brochure, a questionnaire, a client manual, and a personnel policy addendum. Project Window has committed to community outreach, continued development of the program evaluation, and staff training.

Supervised Residence for Pregnant and Postpartum Addicts and Their Infants

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CSAP/MCHB
SP-02553
03/01/91–02/28/96
Project Director(s):
Mary Lee Blais
Contact Person:
Edward M. Roche

PROBLEM: Boston has seen a dramatic increase in the number of children born exposed to numerous substances, especially crack cocaine. Until recently, few treatment and residential programs provided services to pregnant and postpartum addicts and their infants. To the extent that these women and infants present with a wide variety of needs, specialized case management is required to properly facilitate and coordinate the delivery of these services.

GOALS AND OBJECTIVES:

Goal 1: Establish a supervised residential program which will utilize a continuum of community-based care to promote resident participation in recovery services and help residents develop self-care and independent living skills.

Objectives:

a. Reduce the impact of transition from inpatient care and supervised residential services to independent living;

b. Promote maximal prenatal care and minimize possible developmental delay for the infant;

c. Encourage utilization of community-based resources which will be essential to successful recovery after leaving the residential program;

d. Develop interpersonal and treatment resources which will assist in the reduction of postpartum relapse; and

e. Provide policies, procedures, and treatment services which will assist the women who relapse to recover and continue appropriate care.

Goal 2: Develop long-term resources which may be utilized by women and children leaving the supervised residence program for independent living.

Objectives:

a. Recruit members of the local community who can identify safe and affordable housing to accommodate the needs of one or more women and their children;

b. Develop case management plans which will identify services which offer ongoing support to women and children upon program completion;

c. Provide opportunities for women who have completed residency to meet with current residents to share their recovery and parenting experiences; and

d. Monitor the progress of residents during the initial stages of independent living to offer additional support services and identify problem areas which might be more adequately addressed with future residents.

METHODOLOGY: The primary method utilized to achieve the goals and objectives of this program is the use of a residence-based case manager. All residents are required to regularly participate in obstetric, gynecologic, pediatric, medical, dental, and substance abuse treatment services including attendance at

community-based 12-step meetings. Residents have responsibilities within the residence for routine housekeeping chores. They also must attend daily in-house meetings with program staff. Each resident must remain free of the use of substances. Residents who use substances are required to attend an inpatient detoxification program should they wish to continue their residency. Given the fact that funding for detoxification services has been reduced, women have been detoxified during increasingly brief periods of time. Because of the ill-effects on the residence program of women who are still suffering the emotional effects of withdrawal, all women entering the residence program are required to enter outpatient acupuncture services. These services are provided by a local acupuncture substance abuse treatment provider.

EVALUATION: The evaluation component of this project will focus upon the demographic data of each resident, staff reports of resident activities, reports provided by outpatient and community-based providers, and any followup material which can be obtained following a woman's stay in the residence program. Because a woman may remain in residence for up to 1 year following the birth of her child, extensive data may be recorded on any given resident. Permission to obtain record materials from other service providers is a condition of residency.

EXPERIENCE TO DATE: During the period of time the residence program has been in operation, several important insights have been gained:

1. The utilization of acupuncture outpatient services has been an invaluable resource in assisting women to overcome the volatile emotional states they experience shortly after inpatient detoxification.
2. Limiting the specific providers who serve the residents helps to cut the excessive staff time needed to transport residents to treatment providers.
3. Ongoing staff supervision must focus heavily on their experiences with addiction, especially helping staff to develop personal burnout prevention tools. Dealing constructively with confrontation is another focus which will prevent staff from needlessly being drawn into angry relationships with residents who often attempt to circumvent the expectations placed upon them.
4. Given the numerous services received by residents from outside providers, program staff must work closely and cooperatively, with the house manager playing a key role in task assignment and communication among staff members.

Transitional Living Program for Pregnant and Postpartum Women

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CSAP/MCHB
SP-05069
09/30/92–07/31/97
Project Director(s):
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PROBLEM: The problems confronting adolescent girls and women in poor, urban communities of color are many; pregnancy, violence, and drug abuse have assumed epidemic proportions. Researchers identify pregnancy as a high-risk time for violent domestic attack. Additionally, researchers report that pregnant women who are abused are at greater risk for substance abuse. These factors also affect the well-being of their babies. A recent March of Dimes study found that domestic violence is the leading cause of birth defects.

Despite their high risk for being victimized by both substance abuse and violence, there are few services available for young women of color and their children. Due to adolescents' need for close supervision and intensive support, existing battered women's shelters do not have the capacity to serve adolescents under 18 years of age. While other programs do provide prenatal care to adolescents, these services do not offer residential treatment. Furthermore, the programs that do provide substance abuse services for women and their children have little background in the treatment of abused and battered women, and most will not admit adolescents.

GOALS AND OBJECTIVES: The overall goals of this projects are to:

1. Address the actual issues in young women's lives which cause them to self-sedate by trying to deaden their pain through drugs and alcohol;
2. Help participants to lead nonviolent, substance-free lives;
3. Empower young women of color to become contributing members of their communities; and
4. Provide a replicable, cost-effective model of successful intervention with at-risk young women and their children.

The project objectives are to:

1. Decrease substance abuse among the women served;
2. Promote the birth of healthy infants born to participating women;
3. Strengthen the psychological, physical, and social functioning of all participating women and their children in order to develop their capabilities to resist substances;
4. Reduce the incidence of violence/abuse experienced by members of participating families;
5. Promote coordination of care and access to targeted, identified services offered by other medical/community-based programs and organizations; and
6. Strengthen the families' ability to achieve chosen long-term goals along with active drug- and violence-resistant participation in community life.

METHODOLOGY: The Transitional Living Program for Pregnant and Postpartum women will be housed in two residential facilities which will accommodate 30–35 program participants (women and children). One facility opened in 1987 and the other will open in the spring of 1993. One facility will house adolescents ages 16–19 and their children. The adolescents and children will reside in the facility for 18–24 months. The

other facility, geared to adult women and their children, will house participants for 8–12 months. The women participants will be survivors of domestic violence and will be from low-income, inner-city Latino and African-American communities. They will be in recovery or at risk for alcohol and other drug abuse.

The concomitant issues of this population will be addressed through a comprehensive, shelter-based program, with integrated services provided by Casa Myrna Vazquez, Inc. (a multicultural, multisite shelter program for battered women), and by other organizations. Coordinated access to local resources will occur through referral, advocacy, and case management. Onsite and offsite services will include: (1) Substance abuse prevention and recovery support; (2) safety from violence and abuse; (3) perinatal and pediatric health care and education; (4) mental health care; (5) therapeutic child care and parenting support; (6) basic education and skill building; (7) support services, including legal advocacy and housing search assistance; (8) community participation and cultural and civic involvement; and (9) followup support.

EVALUATION: The project will employ a combination of methods, both qualitative and quantitative, to assess the progress and impact of the program in the lives of the participants. A process evaluation will provide a systematic assessment of whether the program has been implemented as designed, and whether the resulting services are operating as anticipated. An impact evaluation will assess whether the program is effective in creating positive change and in meeting the proposed objectives. The central instrument will be the Personal Goals and Treatment Plan developed for each individual, following an indepth interview and evaluation.

Program evaluation will further involve documenting wellness, multicultural transition, and stress regulation. Standard medical measures will be documented through Boston City Hospital. Drug recovery will be monitored through periodic urine tests and quarterly evaluations. Additional variables will be assessed initially and quarterly onsite with state-of-the-art assessment tools such as the Traumatic Antecedents Questionnaire and Achenbach Child Behavior Checklist. These assessments and the offsite services will be monitored for each client through weekly case reviews, client's bimonthly oral assessment, and semiannual written evaluations.

Young Families Support Program
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CSAP/MCHB
SP-01860
07/01/90-04/30/95
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PROBLEM: Adolescent pregnancy and substance use are recognized as important problems with both medical and social consequences. Adolescents who become pregnant also tend to engage in multiple "risky behaviors," including the use of alcohol and illicit drugs. In addition, many adolescent mothers live with chemically dependent parents and/or sexual partners and are at high risk for initiation of use. Programs for chemically dependent women and their infants rarely admit adolescents, however, and programs for adolescents rarely will accept pregnant or parenting women and their infants.

GOALS AND OBJECTIVES: The two major goals of this project are to:

1. Identify and provide comprehensive services to pregnant and parenting adolescents with problems related to the use of cocaine, alcohol, or marijuana; and
2. Provide training and consultation to participating community agencies and workers who serve such adolescents.

The objectives are to:

1. Decrease or prevent the use of cocaine, alcohol, or marijuana;
2. Improve maternal mental health and social support, and decrease social stress;
3. Improve entry into, and utilization of, prenatal care;
4. Improve access to needed services and entitlements;
5. Decrease the rate of perinatal complications;
6. Decrease the risk of comorbidities of substance abuse, such as venereal disease, HIV exposure, and violence;
7. Assure compliance with routine health maintenance for both mother and child;
8. Facilitate optimal physical, emotional, and cognitive development of children exposed to substance-using parents;
9. Identify and treat (or refer) partners and family members in need of treatment;
10. Assist community agencies in developing the expertise to identify and refer pregnant and parenting adolescents with substance use problems; and
11. Provide ongoing consultation to neighborhood health centers.

METHODOLOGY: The program funds both direct and indirect service components. The direct service component includes a team of three full-time substance abuse counselors and a half-time family advocate, based in the Teen-Tot Clinic, a program for adolescent mothers and their infants at Boston City Hospital. These workers provide advocacy, case management, and individual counseling, either at the clinic or at the home, to up to 60 families at a time. The team works closely with the medical providers in a model designed to minimize the number of individuals and systems with which a young mother must interact. As the program progresses, groups will be developed for those in recovery or those dealing with chemically dependent family members. Inpatient and day treatment programs have been identified for those young

mothers who need these more structured services; the Young Families Support Program will function as aftercare for these patients.

The indirect service component is carried out by a full-time health outreach coordinator, who performs needs assessments and coordinates training of workers in the housing projects, neighborhood health centers, and other youth agencies.

EVALUATION: Evaluation will include both descriptive records of the content, frequency, and perceived quality of individual contacts, and summary data on:

1. Access to and compliance with prenatal care;
2. Perinatal status and pregnancy/delivery complications;
3. Use of substances during pregnancy and parenting;
4. Access to entitlements;
5. Compliance with child and adolescent health maintenance;
6. Maternal mental health, stress, and social support;
7. Rates of reported child abuse/neglect;
8. Rates of comorbidities of substance use; and
9. Development of the child and of parent-child interaction.

EXPERIENCE TO DATE: Staff hiring was completed in November 1990, and a full-time training curriculum was developed and implemented in January 1991. Direct services began in February 1991; the program currently serves more than 50 families. We are finding the greatest acceptance of services among those with chemically dependent parents; a significant proportion of these young mothers later reveal their own use. The major needs that must be addressed include housing assistance, reduction of family violence, HIV education and testing, and treatment for serious depression.

We have used focus groups and questionnaires to define training needs, and have developed a curriculum on adolescent pregnancy and parenting, substance use, and associated risk behaviors. This curriculum is being used to train workers in community agencies. We have also developed an intake instrument that includes a wide variety of measures for substance use, family history, mental health, childhood sexual and physical abuse, social support, and life events.

Mother and Infant Substance Addiction Network
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CSAP/MCHB
SP-01619
09/30/89–08/30/95
Project Director(s):
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PROBLEM: There is an increase in substance abuse among women of childbearing age in the city of Detroit. In 1977, the rate of births to mothers using drugs was 11.9 per 1,000 live births; in 1988, the rate nearly tripled to a high of 30.6 per 1,000 live births. There is evidence that drug-related births are being underreported in the city. Drug-related births are being reported primarily from only one area hospital; however, three other inner-city Detroit hospitals with similar demographics reported only 10 percent of the total number of drug-related births. This underreporting of substance-abusing pregnant women has been supported by data collected through a special projects of regional and national significance (SPRANS) grant to Wayne State University School of Medicine, which indicated that 20.3 percent of substance-abusing mothers were not identified in area hospitals.

The impact of substance abuse on the fetus is devastating. Impairment can include physical malformation of the fetus, maternal health risk, or even infant death. Detroit's infant mortality rate, the second highest in the Nation, was 23.1 per 1,000 live births in 1987, due in part to the drug-using population of women who reside in the city.

These three problems—(1) increased substance use among women of childbearing age, (2) underreporting of substance-using mothers, and (3) high infant mortality in the city of Detroit—are the primary issues this project seeks to address.

GOALS AND OBJECTIVES: The overall goal of this project is to reduce infant mortality in the city of Detroit. This will be accomplished by providing a continuum of care model to coordinate maternal and infant care with substance abuse treatment for 100 new substance-abusing pregnant women each year, and for their substance-exposed infants through the age of 3 years, while continuing to provide services to the existing caseload. The Detroit Health Department (DHD) will promote and coordinate participation of multiple organizations in the delivery of comprehensive services for substance-using pregnant and postpartum women and their infants. We will increase the availability and accessibility of prevention, early intervention, and treatment services for these populations and, as a result, improve the birth outcomes of women who used alcohol and other drugs during pregnancy.

To reach the project goal, we have established objectives to:

1. Increase the involvement in substance abuse treatment/education activities among Mother and Infant Substance Addiction Network (MISAN) clients, compared to substance-abusing pregnant women who are not enrolled in the project;
2. Ensure that MISAN infants will be enrolled in one or more preventive programs, when compared to a similar group of infants who are not participating in the project;
3. Demonstrate increased compliance with substance abuse treatment regimes and prenatal care by MISAN clients, when compared to substance-abusing pregnant women not enrolled in the MISAN program;
4. Improve the health status of MISAN infants by the end of 3 years, compared to similar infants in a nonparticipant group;
5. Ensure that MISAN clients who express life goals will demonstrate satisfaction with their accomplishments during the second year postpartum;

6. Increase community organization and system changes to address the needs of substance-abusing pregnant women in Detroit, as indicated by an increased number of interagency agreements;
7. Assist MISAN clients to remain substance free for longer periods of time in comparison to groups of substance-abusing pregnant women not enrolled in the MISAN program;
8. Increase the percentage of new clients enrolled in the MISAN program during their first trimester;
9. Ensure that pregnant women enrolled in the MISAN program receive more regular and consistent prenatal care services during their pregnancy than women not enrolled in the MISAN program;
10. Ensure that long-term housing (1 year or more) will be found for MISAN clients who need it;
11. Decrease substance use by MISAN clients during pregnancy and through 3 years postpartum; and
12. Ensure that MISAN clients keep their prenatal, postpartum, and well-child care appointments.

METHODOLOGY: Annually, a maximum of 100 pregnant and postpartum substance-abusing women and their infants will be referred through a network to the Eleanor Hutzel Recovery Center (EHRC) for treatment. This facility, unique in Detroit, combines drug treatment and prenatal care in one facility. Major services provided include: High-risk prenatal/postpartum care; preparation for baby and support for drug abstinence; individual counseling; methadone maintenance; group programs (including prepared childbirth, parenting, AIDS risk reduction, nutrition, and self-esteem); and detoxification from methadone after delivery.

The Detroit Health Department will assume a case management role and coordinate care so that EHRC women will receive all maternal and child health services provided by public health nurses, including:

1. Paraprofessional outreach program: Specially trained indigenous workers provide supportive services to pregnant women and their infants up to 1 year of age. They perform case finding and serve as teachers, resource links, and outreach workers.
2. Public health nursing: Public health nurses provide professional nursing services to clients and families in their homes and the community.
3. Maternal support services: This program is nonmedical in nature and consists of multidisciplinary teams of professionals (including public health nurses, social workers, and nutritionists) providing comprehensive services to Medicaid-eligible pregnant women and infants. Services are provided in the clients' homes or in DHD clinics.
4. Children with special health care needs services: This program provides a community-based approach for identifying the needs of chronically ill and handicapped children and their families. Services include referral and case management for clients who are in need of and qualified for medical and corrective health care services.

The Detroit Health Department will coordinate a referral system/network designed to educate providers from private substance abuse treatment facilities to interact with pregnant, drug-using clients and refer them to the Mother and Infant Substance Addiction Network as well.

EVALUATION: An outside evaluation will be conducted by Wayne State University's School of Community Medicine through its Maternal Child Health Institute. As a continuation of ongoing research in the area of maternal and child health, two principal investigators will conduct the project evaluation, looking at several factors. Questions related to program goals and objectives will be measured. Assessment of case management activities and outcome measures related to pregnancy and the infant's first year of life will be evaluated.

Pregnant Adolescent Substance Abuse Treatment Program

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CSAP/MCHB
SP-03652
09/10/91–08/31/97
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PROBLEM: The increased use of alcohol and other substances among women has been well documented. While many of these women are of childbearing age, an increasing number are also adolescent. Unfortunately, the number of providers and facilities serving this growing population falls far short of both the current and projected needs.

Cocaine use by pregnant women is increasing. The true extent to which it is being used during pregnancy, however, is difficult to estimate. An unpublished survey of 600 substance-abusing women in the Detroit area indicated that hospitals and clinics do not have formalized screening tools for detecting substance abuse, and, therefore, the problem is underreported by as much as 29.8 percent. Although the prevalence of substance abuse in the Detroit prenatal adolescent population is also currently unknown, it also is thought to be underestimated. A study of newborns in Detroit's Hutzel Hospital estimates that 42 percent of adolescent prenatals use alcohol or other substances.

The combined indicators of escalating substance abuse among pregnant women in Detroit (30.6 births to drug-using mothers per 1,000 live births in 1988) and high infant mortality (20.9 deaths per 1,000 live births in 1988) suggest the need for specialized services for these populations. Of Detroit's four programs for substance-abusing pregnant women, not one accepts adolescents.

GOALS AND OBJECTIVES: The purpose of the Pregnant Adolescent Substance Abuse Treatment (PAST) Program is to develop service and support linkages each year between the Detroit Health Department (DHD) and the Detroit Riverview Hospital (DRH) for 50 substance-abusing pregnant adolescents (ages 12–17 years) through the third year postpartum, and to provide substance abuse prevention materials to 2,000 Detroit Public School students via DHD's Adolescent Health Program.

The project goals are to:

1. Promote the involvement and coordinated participation of multiple organizations in the delivery of comprehensive services for substance-abusing pregnant and postpartum adolescents and their infants;
2. Increase the availability and accessibility of prevention, early intervention, and treatment services for these populations;
3. Improve the birth outcomes of adolescents who used alcohol and other drugs during pregnancy and decrease the incidence of infants affected by maternal substance abuse; and
4. Reduce the severity of impairment among children born to substance-using adolescents.

The project objectives are to:

1. Maintain program participants in a public school program aimed at obtaining a high school diploma;
2. Reduce the number of clients who experience a subsequent pregnancy during the first 2 years postpartum;
3. Provide followup services and develop support systems for all program participants and their infants during the postpartum period and through the infant's third birthday;
4. Increase the level of knowledge about substance abuse and its effects among 2,000 Detroit Public School students during each program year;

5. Provide consultation and referral to all program participants regarding subsequent pregnancies and life options (e.g., education and career planning) during the first year postpartum;
6. Reduce or eliminate substance use among 50 pregnant adolescents each program year;
7. Increase the knowledge level of program participants in the areas of prenatal care, infant care, child growth and development, nutrition, and parenting skills; and
8. Refer and enroll all infants in preventive programs for children such as Early and Periodic Screening, Diagnosis and Treatment (EPSDT), Children Special Health Care Services (Crippled Children), Special Supplemental Food Program for Women, Infants and Children (WIC), and Head Start during the first 3 years of the infant's life.

METHODOLOGY: The PAST Program, via a data base, will coordinate services between Detroit Riverview Hospital and the Detroit Health Department. DRH will provide clients with prenatal care, chemical dependency treatment, and delivery services. DHD, through the staff of the PAST Program and other programs, will provide an array of prenatal/postpartum support services through a comprehensive case management system.

Clients will be recruited through the Detroit Riverview Hospital prenatal clinic, other local hospitals and clinics, and various DHD programs. A prenatal assessment will be performed on each client, followed by biweekly contacts. Services will be provided either onsite at DRH, at the client's home, or at the Young Detroit Health Center. School attendance will be a requirement for participation in the program. Transportation, the use of adolescent paraprofessionals, access to continuing education programs, housing assistance, and other incentives will be used to increase client retention.

The second major component will be the presentation of substance abuse prevention information by adolescent paraprofessionals from various DHD adolescent health programs to both male and female students, ages 12–17 years, within the Detroit Public Schools.

EVALUATION: The evaluation model will assess the effectiveness of three areas: The health system, case management, and public health outcomes. One barrier to a long-term evaluation process is that the target population of substance-abusing pregnant adolescents is highly mobile. In addition, minorities, who comprise the majority of the clients, have shown a history of leaving treatment early. To minimize the negative impact of both barriers, case management and a pretest/posttest assessment model will be used. Other instruments used in the assessment include: The Personal Experience Inventory (PEI) to determine the extent of the incoming client's psychological and behavioral involvement with alcohol and other substances, an Initial Needs Assessment Inventory (INAI), an Adolescent Drug Awareness Questionnaire, the Brazelton Neonatal Behavioral Assessment Scale, and the Bayley Scales of Infant Development.

Women and Infants at Risk
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CSAP/MCHB
SP-02244
07/01/90–04/30/95
Project Director(s):
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Sheryl Pimlott

PROBLEM: Increasing numbers of women have found themselves involved in the criminal justice system over the last 10 years, and many are being institutionalized in correctional facilities. Their crimes are primarily property offenses related to the financing of substance abuse. These women, who are primarily poor, black, and from urban areas, are among those at highest risk for unfavorable birth outcomes. Pregnant women in correctional institutions are faced with a myriad of health and social problems. One of the most prevalent is the separation from their infants 48 hours after birth.

In Michigan, it was found that many pregnant women in the maximum security state prison did not need a high level of custody. Many who had property- or drug-related offenses would have been eligible for less restrictive environments (i.e., community residential centers) had there been one that accepted pregnant women.

GOALS AND OBJECTIVES: The two primary goals of the program are to: (1) Increase the availability and accessibility of prevention and treatment services for prenatal and postnatal substance-abusing women who are in conflict with the law, and for their infants; and (2) promote awareness in the community and coordination among relevant State and local agencies to positively impact the lives of pregnant, addicted offenders and their infants.

The program objectives are to:

1. Establish treatment and educational programs for incarcerated pregnant women;
2. Establish a residential center for pregnant offenders that can be used as an alternative to incarceration;
3. Implement an aftercare program for long-term support of mother and child; and
4. Interface with other agencies to provide resources and continuity of care.

METHODOLOGY: In June 1989, members of the Coalition for Detroit Infants at Risk began providing service delivery programs in the state prison at Huron Valley. These services included group and individual counseling, coordination of health clinics on pregnancy and delivery by the prison nurse, Lamaze instruction, Planned Parenthood speakers, and legal experts to speak on guardianships. Supplemental funding was obtained by the Wayne County Community Mental Health Board in September 1989 for a full-time staff member to continue service delivery and coordination inside the institution. This service component remains intact today. Coalition members were also able to obtain supplemental funding from the Substance Abuse Unit for the Department of Corrections to provide specialized treatment for pregnant substance-abusing women at the prison.

During the first year of the project, women who are at risk for being separated from their infants at birth will be considered the target group for the residential treatment program. These women incarcerated at the state prison will be identified as pregnant by the clinic staff at the time of the intake physical. A program brochure and application will be given to the client to be returned to the project liaison at the prison. If a woman's corrections status allows her eligibility for community residential programs, and screening through an intake interview demonstrates her motivation to stay drug free and parent her child, the woman will be transported by program staff to the residential facility.

During her approximately 8-month stay at the residential facility, the woman will receive medical care from a certified nurse-midwife, specifically identified for this project for her experience in working with addiction. The woman will deliver her infant at Hutzel Hospital in Detroit, which specializes in high-risk births, and will return to the residential facility within 48 hours with her infant. Services provided will include individual and group counseling, especially in the areas of sexual abuse, HIV, substance abuse, parenting, and setting up supportive networks in your family and community.

It is the goal of this agency to provide a supportive, nurturing environment for mother and child that offers respect and sensitivity in order to foster growth and independence in each individual who enters. Since this agency has operated a residential program for female offenders for 20 years, it has established a solid reputation among the women who enter, as well as in the community.

An aftercare program has been implemented to provide long-term support and followup to the women and their families.

The demonstration project will be funded jointly by the Center for Substance Abuse Prevention's Model Programs for Pregnant and Postpartum Women and the Michigan Department of Corrections.

EVALUATION: The evaluation team is from the University of Michigan School of Social Work and Public Health. The evaluation will include assessment of individual and organizational levels of both process and outcome variables.

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CSAP/MCHB
SP-01610
09/30/89–05/31/94
Project Director(s):
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PROBLEM: Studies indicate that chemically dependent women characteristically delay seeking prenatal care. Yet, the most dramatic problems tend to arise when cocaine is used during the first trimester of pregnancy. Substance-abusing patients also have poor compliance with treatment plans and are far more frequently lost to followup.

Bonding between mothers and infants exposed to alcohol and other drugs is difficult because these infants are often irritable, have poor feeding patterns and disorganized motor activity, and cannot respond appropriately to their environment. These factors predispose infants to abuse and neglect. The majority of these high-risk infants will continue to manifest abnormal development patterns, as evidenced by failed developmental screening tests.

GOALS AND OBJECTIVES: The project seeks to address the following goals and related objectives:

Goal 1: Improve birth outcomes among chemically dependent and substance-using women residing in the service area.

Objectives:

a. Provide educational services to women of childbearing age to increase awareness of the effects of chemical use;

b. Improve compliance with care by reducing financial and nonfinancial barriers; and

c. Provide case-managed care by a health care team, taking into account the psychosocial needs of substance-using mothers and their infants.

Goal 2: Promote healthy parent-child relationships in families affected by substance use.

Objectives:

a. Provide parents with the skills necessary to respond appropriately to their infants, promote healthy mother-infant bonding, and reduce the risk of infant abuse and neglect; and

b. Conduct early assessment of chemically exposed infants to identify symptoms, provide supportive care, and initiate appropriate interventions.

METHODOLOGY: Community education, outreach, and development of culturally sensitive materials will occur on a communitywide basis. Group sessions for women of childbearing age will be conducted to address the medical aspects of chemical dependency, as well as feelings of guilt, shame, and denial among clients.

Chemical use information will be provided to women during regularly scheduled appointments. A multiprofessional health care team will provide comprehensive, case-managed care, including biweekly case management meetings.

Transportation and child care services will be provided. One-to-one counseling will be scheduled for all high-risk pregnant women, and Brazelton and pediatric developmental tests will be performed on substance-exposed infants. Parenting education and support will occur during regularly scheduled visits.

EVALUATION: The evaluation will measure pregnancy and birth outcomes by comparing infants born prior to initiation of the FOCUS intervention with those born following program initiation. A descriptive component will be included, focusing on birth outcomes of infants exposed to alcohol and other drugs in utero.

Youth Worker Outreach to Pregnant Street Youth

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CSAP/MCHB
SP-02021
07/15/90–06/30/93
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PROBLEM: In the work Face to Face has done over the past year, we have found that many homeless youth have no concept of their own physical or emotional health/needs. Ninety percent of the high-risk youth whom we have seen have been physically or sexually abused at some point in their lives. They can be very reactive and can operate in perpetual crisis. They may live in violent situations, exhibit aggressive behavior, and lack basic care.

Homeless youth usually are not "living on the street." They have a network of people they may utilize. They may "couch hop," stay in warehouses, live with friends, or (if they stay in unsafe family situations) come home only when parents are sleeping or at work. Health problems faced by homeless youth include nutrition problems, substance abuse, psychiatric problems, sexually related medical concerns, problems associated with victimization and abuse, and problems related to hygiene.

Pregnancy is common among homeless youth. It is estimated that one-third to one-fourth of homeless adolescent females are pregnant or have been pregnant. Coupling this high pregnancy rate with the very high prevalence of chemical use (often daily use) among street youth, one is faced with a population that certainly is at high risk for poor birth outcomes and needs intensive services. Furthermore, because this population is very adverse to systems, the need to develop creative, innovative approaches to linking street youth with needed services and supports is critical.

GOALS AND OBJECTIVES: The primary goal for the project is to develop a detached youth worker health services model linking homeless youth with health, prenatal care, counseling, support, advocacy, and basic needs services in order to: (1) Connect the target population of substance-using, pregnant, and homeless youth with comprehensive services provided through the coordinated participation of multiple organizations; (2) increase the accessibility of prevention, early intervention, and treatment services for the target clients; (3) decrease the incidence and prevalence of drug and alcohol use; and (4) improve birth outcomes for the target clients and decrease the incidence of infants affected by maternal substance use.

The objectives of the project are that:

1. Over 3 years, 135 substance-using, homeless youth unconnected with any preventive health or social services will be linked with services provided by Face to Face and other agencies through intensive outreach utilizing a detached youth worker model;
2. Over 3 years, 135 high-risk, homeless youth will receive prenatal care, preventive health, counseling, chemical health, support, and case management services; and
3. Project staff will have ongoing referral relationships with Ramsey County health and human services agencies.

METHODOLOGY: A youth worker approach is the cornerstone for this model of services. "The detached youth worker is one who works where the adolescents are, in and on their geographical space (their 'turf'), and who works with them whenever . . . with the agency goals of developing pathways back to the larger society and providing appropriate individual services."

Two youth workers identify and provide outreach to pregnant, homeless youth. Street work and collaborative work with other agencies that serve youth are their methods; proving themselves trustworthy and reliable are their keys to success. The youth workers also lay the groundwork for getting youth into Face to Face and other agencies for services to meet their basic needs. The youth workers become primary support persons for the clients and continue to link with them in their own environments and settings.

Within the program, medical care, nutrition counseling, chemical health education and counseling (through Chrysalis, a collaborating agency), individual or group counseling, ongoing 10-week prenatal classes, biweekly parenting education and support, support services for partners, and access to Face to Face's academy will be developed. Intensive case management was developed and implemented in 1992.

EVALUATION: A formative evaluation has been done for year 1. The researcher was Marsha Mueller of the University of Minnesota. We tracked the youth workers' approaches and techniques. In addition, we identified barriers that limit effective practice and success and identified attributes that characterize effective agency supervision and support.

An outcome evaluation is in process and will assess the extent to which the special youth outreach approach recruits and involves substance-using, homeless youth in the comprehensive services at Face to Face. The outcome evaluation will focus on three areas:

1. Recruitment (How many youth were contacted? What are their characteristics? Who was served? Did the project recruit and serve the intended target group? Who was contacted but not served? What can be done to make recruitment more effective?);
2. Retention/involvement (To what extent did youth get involved in services? Who is more likely to take advantage of the services? Why did some youth drop out of services? Why did others stay? What can be done to keep more youth involved in services?); and
3. Service outcomes (What are the birth outcomes for girls who stayed in the program? How do these outcomes compare to the norm? How many of the girls who stayed continued to use pregnancy prevention? To what extent did substance use decrease for girls who stayed?).

EXPERIENCE TO DATE: The project is fully staffed. Entering year 3, we have 70 clients whom we have linked with a variety of services, including mental health, chemical health, housing, health, and prenatal services. We have established contact and developed working relationships with 20 agencies. We provide outreach on the streets and have identified two major locations. We also provide outreach in community agencies that serve youth.

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CSAP/MCHB
SP-03003
05/01/92–04/30/97
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PROBLEM: Studies conducted at Truman Medical Center have shown the prevalence of cocaine metabolites in the urine of newborns at the time of delivery to be approximately 15 percent. Since 3,000 women deliver at Truman Medical Center each year, at least 450 newborns are exposed to cocaine in utero. Forty-eight percent of the mothers of these positive screens had no prenatal care; 96 percent had fewer than three visits to a physician during their pregnancy. It has been shown that cocaine addiction may be even more hazardous than other illicit drugs: Among the consistent findings are higher incidence of spontaneous abortion and and abruptio placenta, increased incidence of premature births and stillbirths, decreased birthweights, neurological immaturity, and congenital malformations (Chasnoff, Burns, and Burns, 1986, 1987; Smith and Deitch, 1987).

These infants also present feeding difficulties, increased startle responses, sleep disturbances, excessive crying, and poor bonding or attachment with caregivers (Finnegan, 1981, 1986; Ryan, Ehrlich, and Finnegan, 1987). Other reports have indicated congenital cardiac abnormalities (Little, Snell, Klein, and Gilstrap, 1989), genitourinary tract malformations (Chasnoff, 1988), digital abnormalities, bowel infarction (Chasnoff, Grey, and Kaplan, 1988; Oro and Dixon, 1987), and increased risk for sudden infant death syndrome (Bauchner et al., 1989). Long-term effects have yet to be explored (Doberczak, Shanzer, Senie, and Kandall, 1988), but studies from Los Angeles indicate that school-age children who were exposed to cocaine in utero manifest multiple behavior problems and learning disabilities.

GOALS AND OBJECTIVES: The Kansas City Prevention, Assistance, Coping Skills, and Training Program (KC PACT) has two primary goals:

1. Promote the involvement and coordinated participation of multiple organizations in the delivery of integrated, comprehensive services for alcohol and other drug-using pregnant and postpartum women, and their infants; and
2. Improve birth outcomes of women who use alcohol and other drugs during pregnancy, reduce infant mortality, and decrease the incidence of infants affected by maternal substance use.

The project objectives are to:

1. Increase integration of services (prevention, early intervention, and treatment services);
2. Increase availability of comprehensive services within individual service providers and among service providers; and
3. Increase infant gestational age and birthweight of mothers enrolled in the program, decrease the incidence of positive cocaine screens at birth, and decrease perinatal mortality.

We anticipate that women receiving services through KC PACT will deliver babies with higher birthweights, have longer gestation periods, and experience fewer stillborn and neonatal deaths than substance-abusing women who do not receive KC PACT services (as defined by a comparison population of cocaine-abusing women who deliver at Truman Medical Center).

METHODOLOGY: The intervention model includes: (1) Identification of target population from community and church groups, prenatal clinics, and the criminal justice system; (2) education of high-risk

mothers in prenatal clinics; (3) case management by advocates, indigenous workers modeled after the Resource Mothers located at Ad Hoc Group Against Crime and the Ward A.M.E. Church; (4) an outreach team directed by a nurse practitioner to conduct clinics at community sites and drug treatment centers and to make home visits; (5) training for mothers in care and enhanced development for infants exposed to drugs in utero; (6) close liaison with drug treatment centers that work with pregnant substance abusers; (7) development of a volunteer role model program to match community residents with pregnant women in a friendship relationship to provide an alternative to the drug culture; and (8) liaison with pediatric services to ensure that clinic appointments are kept and that infants who need specialized services will receive them.

The KC PACT Task Force will coordinate current metropolitan services to work toward eliminating instrumental and institutional barriers to medical and drug-treatment services by strengthening linkages, avoiding duplication, preventing unmet patient needs, and improving support to patients. Part of this project, including many of the media development costs and staff salaries, will be supported by the Hall Family Foundations.

EVALUATION: A process evaluation will focus on various aspects of the community collaborative model, including identifying gaps in service and current collaborative efforts. A yearly followup survey will assess community changes. Birth indicators to be collected include birthweights, gestational periods, stillbirths, and neonatal deaths. Urine screens of neonates will be used to assess cocaine metabolites at birth. Comparison groups include:

Group 1: Women who have not used, or infrequently use, alcohol or drugs during pregnancy.

Group 2: Women who have abused substances, but have not had prenatal services prior to delivery.

Group 3: Women who are known previous or current substance abusers but do not participate in the program.

Group 4: Women who are known previous or current substance abusers and participate in the comprehensive program.

Process variables of case management will complement these objective factors and be used in a predictive model of successful outcome. The volunteer component will be assessed through both process and outcome evaluation.

EXPERIENCE TO DATE: The KC PACT project was initiated through funding by Hall Family Foundations. Public service announcements, brochures, and other media such as videotapes have been developed. An extensive curriculum has been developed and is now being used in training. More than 50 community presentations have been conducted at schools, churches, agencies, and community events. Cross-training has been conducted with drug treatment centers. A consortium of community agencies has been established. Contact has been made with more than 20 agencies. Forms and procedures have been developed and piloted. Advocates have been hired and trained, and currently are providing client services to 20 women, many of whom are now receiving inpatient and outpatient treatment along with prenatal care. Twenty volunteers have been recruited and are now being trained.

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CSAP/MCHB
SP-01553
05/01/90–04/30/95
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PROBLEM: The federally funded community health centers (CHCs) in St. Louis have participated in a joint perinatal program for 4 years, serving 3,000 pregnant women annually. Major emphasis is directed toward identifying risk factors which contribute to the high infant mortality rate within the service areas. Within the first 3 years of the program, nearly all 3,000 women using the CHCs were assessed using a uniform risk appraisal instrument. Risk factors most frequently identified were: Age (16 years or younger at time of conception), low socioeconomic status, cigarette smoking, alcohol abuse, and drug abuse.

The prevalence rate of alcohol and drug use is increasing in the city of St. Louis. The Semiannual Drug Abuse Trends in St. Louis and the Drug Use Forecasting Program of the National Institute of Justice estimate that there are between 7,000 and 9,000 hard core drug abusers and an additional 10,000 to 14,000 recreational users in this city. Many of these users/abusers are females who are treated at the federally funded CHCs.

GOALS AND OBJECTIVES: The three primary goals of this project are to:

1. Increase the availability and accessibility of prevention and early intervention services for pregnant and postpartum women at risk for drug and alcohol abuse;
2. Decrease the incidence and prevalence of tobacco, drug, and alcohol use and abuse among pregnant and postpartum women; and
3. Improve the birth outcomes of women who used alcohol and other drugs during pregnancy.

The project objectives are to:

1. Provide personnel who have expertise in the area of substance use/abuse in pregnancy and who will be available at each health center to implement substance use/abuse education, assessment, screening, counseling, and referral as appropriate;
2. Provide outpatient drug and alcohol abuse/dependency treatment through development of procedures and relationships with substance abuse treatment facilities;
3. Provide education regarding the consequences of substance use in pregnancy to 95 percent of the prenatal clients (target population: 3,000 prenatal clients);
4. Screen 85 percent of the target population of prenatal clients for substance use in pregnancy by the third prenatal visit (target: 3,000 clients);
5. Provide indepth substance use interviews for 90 percent of prenatal clients who report using substances during pregnancy on the initial screening based on the (modified) tobacco, alcohol, and drug sections of the Diagnostic Interview Schedule (DIS-IIIR) abusers (target sample: 1,200 substance users and 300 suspected abusers);
6. Assist 15 percent of smoking pregnant clients in quitting cigarette smoking during pregnancy (the target is an estimated 900 clients who smoke); and
7. Provide a smoking cessation program to assist clients in reducing by 30 percent the amount they smoke per day, with the anticipated outcome of having them deliver babies with better birthweights, compared

to smokers who do not attend the program (the target is an estimated 700 clients who smoke one-half pack per day).

METHODOLOGY: The Perinatal Substance Abuse Project (PSAP) for St. Louis is an expansion of an existing joint perinatal program serving 3,000 pregnant women and their infants. This program is targeted to provide substance abuse education and early intervention within the health care setting where the target population already receives prenatal care. Mental health counselors have been added to the perinatal health care team at the CHCs to perform counseling, indepth assessment, onsite treatment, case management, and followup of all patients, both onsite and at referral sites.

EVALUATION: The evaluation components are coordinated with those established for the Comprehensive Perinatal Care Program (CPCP) and include process and outcome indicators. Process indicators revealed the following:

1. Ninety-five percent of all prenatal clients assessed for substance use received education on the consequences of substance use in pregnancy.
2. Based on self-reports of 1,123 prenatal and postpartum clients processed as of December 1991, the drugs of choice most commonly identified were tobacco, alcohol, marijuana, and other drugs such as cocaine.
3. Of the approximately 1,123 new prenatal enrollees, 418 were identified as being at high risk for substance use and enrolled in the mental health counselors' caseload.

EXPERIENCE TO DATE: The Perinatal Substance Abuse Project has been integrated into the perinatal program at the federally funded community health centers. All clients entering the CHCs for prenatal care receive a perinatal risk assessment and substance use assessment.

As of December 1992, 6,487 assessments have been completed, with 1,067 women being identified as high risk. The mental health counselors have provided counseling and education, indepth assessment, onsite treatment, case management, and followup of high-risk women referred offsite for treatment.

Project staff have participated in numerous inservice trainings on substance use during pregnancy. Approximately 80 percent of the perinatal staff at the CHCs have received some form of training. The mental health counselors provide ongoing training for the staff.

Maternal and Infant Chemical Dependency Project
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CSAP/MCHB
SP-01361
03/01/91–02/28/96
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PROBLEM: Nashua, New Hampshire, is the second largest city in the State and the site of both a prenatal and a child health clinic that serve low-income women and children. From 1988 to 1990, the number of clients at the prenatal clinic who admitted to using alcohol or drugs increased from 8 percent to 15 percent. Referrals were made for treatment, but there were no guarantees that women would receive services. Social service professionals formed the Greater Nashua Area Task Force on Alcohol/Drug Use During Pregnancy; they estimated that 300 babies per year in the Nashua area were at risk for alcohol or drug exposure. A need was identified for comprehensive and coordinated treatment services for mothers and their children. Prior to funding of the Maternal and Infant Chemical Dependency Project (MICDP), there were no maternal-infant chemical dependency projects in New Hampshire.

Morbidity associated with infants born to drug-dependent women correlates with inadequate prenatal care, obstetric or medical complications, and ingestion of multiple substances. Many drug treatment centers exclude pregnant women; among those that accept pregnant women, few provide child care. Lack of access to substance abuse treatment is an important service gap this project will address. In addition, the project will attempt to improve the current knowledge base on how best to deliver services to this population.

GOALS AND OBJECTIVES: This project has three primary goals:

1. Decrease the incidence and prevalence of drug and alcohol use among pregnant and postpartum women;
2. Improve birth outcomes of participants who used drugs and alcohol during pregnancy and decrease the incidence of infants affected by maternal substance use; and
3. Reduce the severity of impairment among children born to substance-using women.

The project objectives are that:

1. During the first full program year, 30 women will remain in the MICDP through childbirth, with 50 percent of these clients reducing or ceasing substance use and 75 percent continuing in the program after childbirth;
2. Seventy-five percent of participants continuing in the program after childbirth will remain below their level of substance use at the time of program enrollment during pregnancy;
3. For MICDP participants, the incidence of maternal perinatal morbidity and mortality, infant congenital anomalies, abstinence effects, and impact on fetal development will be reduced to a point lower than that experienced by a comparison group of self-reported drug and alcohol users drawn from the general prenatal clinic population; and
4. Mothers who remain in the program for 2 years will consistently demonstrate adequate parenting skills and provide care specific to their children's needs, resulting in appropriate developmental gain in their children; and no infant/child will show evidence of abuse or neglected health care.

METHODOLOGY: The Division of Public Health Services will administer the MICDP grant. Substance abuse treatment will be integrated into existing prenatal and pediatric health care agencies. Community

social services agencies will receive training on identification of chemically dependent pregnant women and will become a primary source of referral to MICDP.

A multidisciplinary treatment team will develop an individualized treatment plan for each participant. Substance abuse counselors will provide case management, education, and support. During the prenatal course, women will meet the pediatric nurse practitioner who will care for their child and will begin to receive a series of home visits that will continue after delivery. Family support and other sources of support will be included in counseling and education efforts. Incentives will be developed to maintain maternal participation in the project.

Women will be provided with services to support their recovery postpartum. The substance abuse counselors will continue case management. There also will be opportunities to assess the mother's health status through the reproductive health component at the prenatal agency.

Comprehensive curative and preventive pediatric health care will be provided to the children of project participants for 2 years, thus allowing continued access to the mother. Special emphasis will be placed on the developmental assessment of each child and appropriate referrals/followup made to the Child Development Clinic or Early Intervention Network as warranted. Parenting training sessions and intensive support activities will be part of the service component.

Staff at both the prenatal agency and the child health agency will serve as sources of technical assistance and consultation to other health care professionals working with this population in New Hampshire. Local and statewide training regarding identification and treatment of pregnant substance abusers will be conducted.

EVALUATION: Client participation will be documented and tracked through prenatal clinic records and progress reports from treatment programs. Level of substance abuse will be measured through self-reports, counselor judgment, urine toxicology tests, and administration of the Addiction Severity Index at the time of enrollment and at regular intervals up to the time of delivery. Participant use of alcohol and drugs during the 2 years after childbirth will be measured in the same way as during the prenatal period.

Standard measures of maternal/infant birth outcomes will be examined for program participants. Data on newborn health will be collected and anomalies noted, as well as specific observations and tests to identify the effects/presence of chemical dependency. The Brazelton Neonatal Behavioral Assessment Scale will be administered to assess neonatal behavior. Parental effectiveness will be measured using the Nursing Child Assessment Satellite Training test series; the Vineland Social Maturity Scale also will be used. Developmental progress will be tracked through the Denver Developmental Screening Test (DDST). Subjective assessments of parenting skills will be made once each year by the pediatric nurse practitioner.

Process evaluation will include a review of services at the prenatal and pediatric agencies by the Division of Public Health, using quality assurance tools from State prenatal, child health, and drug treatment programs, together with a site visit, random medical record audits, review of protocols, and observations. Data collection will be reviewed at quarterly site visits. In addition to monitoring and documenting the model implementation, there will be specific evaluation actions designed to assess response of clinic staff to the project over time, program success in attracting and enrolling women, effectiveness of educational sessions designed to increase clients' awareness of drug and alcohol effects on the fetus, and the views of clients completing/terminating the project.

EXPERIENCE TO DATE: The project will be fully staffed as of January 1993. As of November, 1992, 19 women had signed a contract agreeing to enroll in the program; 12 infants had entered the pediatric component of the program. At least 80 women who are at risk for substance abuse have received services. A commun. y kick-off event was held on Valentine's Day for agencies and other interested individuals that might refer clients; the film entitled *Straight from the Heart* was shown. Staff have chosen the name "Baby Steps to Recovery" for the project, and a new client-focused brochure has been designed.

The client contract and clinical protocols have been finalized. Numerous data collection instruments have been developed, including a form to track all referrals to the project, regardless of whether they sign the contract. A questionnaire was sent to project staff in the winter of 1992 to assess their views on the startup experience and their expectations for the project. This questionnaire will be repeated in the winter of 1993,

and the results of both will be compared. Results of this questionnaire were used to develop a report documenting the process of planning and implementing the project. Client views are also being solicited through a questionnaire that is being distributed to participants, as well as to individuals who have been referred or have dropped out. These results will be used to modify the program, develop incentives for participation, and design the parenting program.

The project's Advisory Committee met three times in 1992. Their input and advice were used in modifying the program and in shaping the application for the third year of funding.

Project staff have been involved in numerous inservice presentations for health care and human services providers, both in Nashua and throughout New Hampshire. Project staff also helped in the planning and presentation of a conference on perinatal substance abuse sponsored by a legislative task force. In the fall of 1992, this project sponsored a statewide conference on how to assess and where to refer pregnant women who abuse substances.

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CSAP/MCHB
SP-02982
03/01/91–02/28/96
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PROBLEM: In 1987, Atlantic City had the highest individual ranking in the State of New Jersey on the Special Supplemental Food Program for Women, Infants and Children (WIC) index, which included low birthweight rate, infant mortality rate, perinatal death rate, low-income rate, fetal deaths, and adolescent birth ratio. One of the well-documented causes of low birthweight is the use of alcohol and other drugs during pregnancy. During 1989, the Atlantic City Health Department tested all women applying for prenatal care. Of the women tested, 33 percent tested positive for drug use, and, of those, 95 percent tested positive for cocaine or other drugs. The national average for positive urine results (as reported by Dr. Chasnoff) was 11 percent, with a range of 0.4 percent to 27 percent. Atlantic City, with a 33 percent positive urine test rate, had a significantly higher rate than the 27 percent range in the Chasnoff study.

For indigent pregnant/postpartum drug-abusing women in Atlantic City, drug and alcohol treatment services have been limited to the following: 12–24 months of residential treatment; 21–28 days of residential treatment; methadone maintenance and detoxification treatment; and 1-hour, once-per-week outpatient treatment. None of these services were developed to meet the needs of women, especially pregnant and postpartum women.

Residential options are frequently rejected by pregnant and postpartum women. Residential placement, whether for 21 days or 24 months, removes clients from their support systems and separates them from their children. In cases where pregnant/postpartum women agree to residential treatment and arrive at the first group in the facility, they are faced with a room filled primarily with males. Regular outpatient treatment once per week is generally insufficient, and is characterized by high dropout rates.

In addition to lack of specific drug and alcohol treatment services for pregnant/postpartum women, coordination among health, human service, and drug and alcohol treatment facilities has been nonexistent.

GOALS AND OBJECTIVES: The two primary goals of the project are to:

1. Demonstrate the effectiveness of a model combining intensive outpatient drug abuse and alcoholism treatment with psychotherapy, case management, and coordination of community services in decreasing the incidence and prevalence of drug and alcohol use among pregnant and postpartum women and their significant others who have participated in the program; and
2. Coordinate and augment existing community services to develop a comprehensive service delivery network for indigent pregnant and postpartum women with drug and alcohol problems.

The project objectives are to:

1. Improve health and social outcomes and reduce client risk factors associated with drug and alcohol abuse;
2. Increase the number of clients completing the treatment program successfully;
3. Decrease recidivism;
4. Increase the number of referrals to and from the project; and
5. Increase the levels of knowledge related to maternal and child health and alcohol and drug issues among all agencies providing services to addicted pregnant/postpartum women.

METHODOLOGY: The core of treatment is intensive outpatient group therapy by a drug and alcohol counselor conducted three times per week for 2 hours each session. The focus of the therapy is on breaking through denial, accepting addiction as a disease, and having the opportunity to share problems and obtain group support or confrontation. Recognizing relapse triggers and learning new behavior patterns are emphasized in group sessions. Self-help groups are used as an adjunct to group therapy.

Individual psychotherapy is provided by a psychotherapist and helps clients begin to examine areas of conflict outside of immediate drug and alcohol issues. Psychotherapy is used in conjunction with psychiatric medication monitoring in cases of clients with mental health disorders in addition to drug and alcohol addiction.

Case management is provided through development of an individualized case management plan and includes ensuring prenatal and postpartum checkups, pediatric care, and social service referrals and followup.

Outreach is provided to recruit new clients, retain existing clients, and improve client attendance. Any client missing a scheduled appointment is paid a home visit within 24 hours by the outreach worker to encourage participation.

Urine testing is provided to monitor progress, and group meetings for clients' family members are held. In-house Narcotics Anonymous meetings are also provided once a week to facilitate self-help group attendance.

Child care is provided while mothers are in group therapy, and transportation is provided to and from the treatment facility as well as to various medical and human services appointments. Washers and dryers are provided onsite to allow clients to combine group attendance with doing their laundry.

Monthly working group meetings composed of representatives from local service providers are held to facilitate coordination among agencies. Training is provided to the working group members to ensure a pool of experts to serve pregnant and postpartum drug-addicted women. The working group provides oversight to the project.

EVALUATION: The NorthStar evaluation plan consists of two sections: (1) Client level process and outcome evaluation, and (2) systems level process and outcome evaluation. Evaluation at the client level focuses on treatment activities for pregnant and postpartum women and their impact on reducing drug and alcohol addiction. Evaluation at the systems level will measure interagency coordination as well as professional training for those agencies coming in contact with pregnant and postpartum drug-addicted women.

Process data for client activities eventually will be correlated to relapse rates. Outcome data for clients will be measured with a quasi-experimental design which will compare the reduction in social, health, and alcohol and other drug problems in our sample with the reduction in a comparison group. The comparison group will consist of the program's nonparticipating pregnant and postpartum women who have agreed to remain in the followup survey. The Addiction Severity Index (ASI) composite scores will serve as the tool for this measurement.

Outcome data for the systems level interagency coordination will be collected with a pretest/posttest design using Dr. Kumpfer's Provider Survey Questionnaire. Process data for interagency coordination will consist of attendance records from our working advisory groups and the number of referrals in and out of NorthStar. In order to evaluate the professional training component of the systems level objectives, we will design a pretest/posttest questionnaire (based on the seminar's curriculum) to measure the amount of knowledge gained by the professionals trained.

The following tools will also be used to evaluate the objectives at both the client level and the system level: The Addiction Severity Index, the Pennsylvania State Drug Knowledge Test, and Dr. Kumpfer's Prevention Provider Survey.

EXPERIENCE TO DATE: The evaluation data collection tool (Addiction Severity Index) has been merged with the required admissions and data collection tools of our State and our agency. This merger has been accomplished within a computer software program written for us by Mike Sedita of Charter MS Technologies Computer Service. This merger diminishes the time spent in admissions, decreases the

redundancy of data collection, and greatly enhances the generation of statistics for State and Federal agencies.

The ASI results will be statistically analyzed every 6 months. Due to the small sample size and the short time that the project has been operational, the difference between the participant and comparison groups was not statistically significant. The amount of change in the participants from baseline to the first 3-month followup period was also minimal. We expect this to change as our sample size increases and as our time in operation increases.

The project is almost fully staffed as of December 1992. Forty-seven clients have been screened and 36 have been admitted.

The project has implemented activities in the following components:

1. Client level outcome measures: The effectiveness of our intensive outpatient model is being evaluated by using the seven composite scores (medical, employment, drug, alcohol, family/social, legal and psychological) of the Addiction Severity Index. In all of the baseline analyses, the treatment group or participants (group 1) and those clients who remain in the nonparticipant group (i.e., those clients who dropped out of treatment and are designated as group 2) were similar and comparable—that is, none of the *F* Statistical Test ratios (*F* ratios) or calculated *t* tests were statistically significant.

   During the semiannual report timeframe (March 1, 1992 to August 31, 1992), the ASI followup scores in the seven problem areas for groups 1 and 2 were aggregated and statistically analyzed with analysis of variance (ANOVA). The drug and alcohol composite scores of group 2 reflected less illness severity than the treatment group. A small sample size and an insufficient treatment timeframe were considered as possible explanations for the results obtained. In addition, we have clinically observed an increased rate of relapse and this coincides anecdotally with the loss of a drug and alcohol counselor as well as the loss of the full-time psychotherapist.

2. Multiple regression analysis: This analysis was performed on the most recent ASI data in order to assess the relative importance of the predictor variables in their contribution to variation in the criterion variable. When the predictor variables (medical, employment, alcohol, family/social, legal, and psychological) were run with the criterion variable of drugs, we found that family and legal variables accounted for 20 percent of the variance in drug abuse. When the predictor variables (medical, employment, drugs, family/social, legal, and psychological) were run with the criterion variable of alcohol, we found that family accounted for 4 percent of the variance in alcohol abuse.

   The beta weights of the employment and psychological variables ranked high in the equation. We have used this data to fortify our activities and interventions to solve the problems of employment, psychological issues, legal issues and family relationships, but maintaining personnel remains a problem.

   The change in percentage in ASI composite scores for participants from baseline to 6 months and baseline to 12 months were also obtained. The medical scores became worse, as did alcohol use. Our program goals were to make a 25 percent improvement in each of the seven ASI problem areas. We have met this goal in the areas of legal and psychological factors.

3. Systems level outcome measures: The *Prevention Provider Survey* outcome measure was administered to the Working Group as a pretest in November 1991. The same survey was administered again to the Working Group in November 1992. Optical Scanning sheets were used, and Temple University's Measurement and Research Center is placing the data on discs for NorthStar.

   Thus far, the data discs have not been returned to NorthStar, but our scan of the data shows that the Working Group has begun to collaborate and network with other area agencies. They have expanded their range of agencies. In addition, they have increased their number of contacts with other agencies. Finally, they reported increased satisfaction with the type of networking taking place with other agencies.

   Our referral logs show that we have made 190 outgoing referrals to community agencies, revealing an annual rate of 2 per client. Incoming referrals from community agencies totalled 95, for a period of approximately 1-1/2 years. NorthStar's objectives for outgoing and incoming referrals have been met.

Residential/Outpatient Care for Addicted Women

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CSAP/MCHB
SP-03012
09/15/91–05/31/96
Project Director(s):
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Rev. Barbara R. Ramsey, M.S.W.

PROBLEM: The target population for this project consists of those who are disadvantaged according to several measures of social, economic, and physical health status. Program participants will be drawn from Camden City at large. Camden has a population of 85,000 residents, of whom 23,000 are women of childbearing age (12–44 years old). Available data suggest that women between 25 and 30 years of age are most likely to be substance abusers during pregnancy. There are approximately 7,500 women in Camden within this age group.

The target population is composed of four groups: Drug-addicted pregnant and postpartum women; infants exposed to drugs in utero; family members of substance-abusing mothers; and families who provide foster care to infants of substance-abusing mothers.

Crack use during pregnancy can result in major obstetric complications and adverse birth outcomes. For low-income and minority groups, who are already at significantly higher risk for pregnancy complications and infant morbidity and mortality, the complications are even greater.

Crack/cocaine use is known to induce vascular constriction. It is suspected that this property reduces blood flow to developing organs of fetuses at critical points in their development, although conclusive evidence is still lacking. Crack use among pregnant and postpartum women can cause medical complications to the mother during pregnancy, abruptio placentae, spontaneous abortion and fetal death, stillbirth, intrauterine growth retardation, prematurity, low birthweight, congenital malformations, and withdrawal symptomatology among infants.

GOALS AND OBJECTIVES: The purpose of this project is to establish a model program for the prevention and treatment of cocaine (crack) addiction among pregnant and postpartum women and to reduce the severity of physical, emotional, and cognitive impairments among their offspring. The six major program goals are to:

1. Promote involvement of multiple organizations in Camden in delivering comprehensive services for substance-abusing pregnant women and their infants at a single site setting;
2. Increase accessibility to prevention, early intervention, and treatment services for 80 drug-dependent pregnant women per year in Camden;
3. Decrease the incidence and prevalence of cocaine and other drug addiction among target pregnant women;
4. Improve birth outcomes among women who use crack cocaine and other drugs;
5. Reduce the severity of impairment among children born to drug-dependent women; and
6. Stabilize and rebuild the family and home environments of drug-dependent mothers.

The program objectives are to:

1. Increase the availability, accessibility, and acceptance of interventions by drug-abusing pregnant women compared with traditional services to mothers who are substance abusers;
2. Increase the level of family involvement in the recovery of drug-abusing women to a greater extent than traditional services offered to such women;

3. Yield higher rates of drug abuse termination and long-term abstinence than mothers using traditional drug treatment services through a special acupuncture and addiction counseling program;
4. Reduce the incidence of complications of pregnancy and yield better pregnancy outcomes than traditional treatment services for drug-abusing women;
5. Decrease the incidence of congenital anomalies among newborns to a greater extent than traditional interventions with drug-abusing women;
6. Enable more infants to develop according to normal patterns of physical and cognitive growth than infants exposed to traditional services;
7. Help a greater proportion of drug-abusing women return to constructive, independent living arrangements than those using traditional services; and
8. Increase the parenting and nurturing skills of parents with special needs children to a greater extent than parents using traditional services.

METHODOLOGY: Cooper Hospital/University Medical Center of Camden, New Jersey, is collaborating with more than 30 human service agencies, the New Jersey Department of Health's Alcohol and Drug Abuse Office, the Joseph P. Kennedy, Jr. Foundation, and the Center for Health Policy Studies of Columbia, Maryland, to establish a model treatment and rehabilitation program for drug-addicted women and their infants. The model is based on a one-stop shopping concept, featuring a combined residential and hospital outpatient-based program for pregnant and postpartum women with drug dependency.

The program envisioned by Cooper Hospital features interventions designed to deal with the spectrum of problems associated with cocaine use among pregnant women and mothers. Specific program components include the following:

1. Comprehensive clinical and counseling services to terminate substance abuse;
2. Clinical and educational services to deal with prenatal and postnatal health needs;
3. A residential setting to establish a drug-free, stable, caring environment for addicted mothers and infants;
4. Creation of a caring and nurturing residential environment to displace maternal fears concerning legal or criminal penalties for substance abuse;
5. Support services to assist mothers in residence with entry into constructive rewarding activities after leaving the residential program (i.e., self-help programs, education and vocational programs, employment, and intergenerational mentoring programs);
6. Support to assist with transition to semiresidential or nonresidential treatment services and living arrangements; and
7. Child care and parenting services to help parents meet the special needs of children born with cognitive or behavioral deficiencies due to prenatal drug exposure.

EVALUATION: Cooper Hospital describes its plans for evaluating the comprehensive drug abuse treatment program for pregnant and postpartum women and their infants in this section. Specifically, the section contains a discussion of the primary study hypotheses, evaluation measures (process and outcome measures), composition of treatment and comparison groups and procedures for assigning clients to each, data sources, data collection instruments, and a summary of the expected data analysis. Details of this plan were developed with the assistance of the Center for Health Policy Studies (CHPS) (the outside evaluation contractor) and project consultants.

For developmental assessments, we plan to use the Brazelton Neonatal Assessment Scale and the Bayley Scales of Infant Development. For measurement of self-esteem, we plan to use the Tennessee Self-Concept scale, and for addiction severity measurement, we will use the Addiction Severity Scale. Advanced clinical techniques for identifying congenital anomalies among infants will be used (e.g., ultrasonography for urologic and cranial abnormalities).

Project evaluators will have access to hospital clinical data, family service plans of caseworkers, and selected data from other human services agencies to conduct the evaluation. The Center for Health Policy Studies will have primary responsibility for collecting data on the project, although this task will be shared with clinical and administrative staff of Cooper Hospital. Cooper Hospital staff will be collecting much of the above data as part of their normal clinical duties, and CHPS will be responsible for assembling, abstracting, validating, and preparing specific data items for each mother/infant/family unit in the study. CHPS will consult with the principal investigator and project director and Cooper Hospital department heads to explain the evaluation design and its data requirements. At that point, a data collection plan will be designed to maximize use of available data within the hospital and to discuss primary data collection as well. This plan will undergo review by Cooper Hospital's institutional review board. Once cleared, specific data collection roles will be defined. The family therapist may administer the Tennessee Self-Concept instrument during periodic contacts with subjects. These results will also be assembled and integrated by CHPS staff. Staff in Cooper Hospital's Pediatrics/Child Development Programs will administer the Brazelton and Bayley instruments to infants in the project. CHPS will also abstract results from these assessments for integration into a central record. Other administrative and clinical records will be abstracted to document process and outcome data needed for the study for each mother/infant/family triad.

CHPS will provide periodic reports and make presentations where appropriate to Cooper House and Cooper Hospital staff to keep them informed about progress and issues in data collection and to share insights into the project evaluation.

EXPERIENCE TO DATE: As of December 31, 1992, there have been 120 applicants, 47 admissions, and 73 ineligible applicants who were referred to appropriate community agencies and or drug treatment programs. There were 32 live births with birthweights ranging from 5 pounds to 8.50 pounds, and one set of male twins. Some of the babies have received the Bayley Scales of Infant Development assessment, and all infants will be monitored periodically.

Since January 7, 1992, the residential program has remained at capacity (12 clients) 98 percent of the time, and 17 discharged clients have returned for casual and or clinical services. The outpatient office was opened in September 1992.

From August 1991 to February 1992, the length of a client's stay in the residential program averaged 6 weeks. However, since March 1992, we have extended the stay progressively from 6 weeks to 5 months. The change was influenced by increased staff development training, including a weekly residential council meeting chaired by residents, and the opportunity for residents to report their assessment of the Cooper House experience at staff meetings and monthly advisory board meetings. Daily community meetings, as well as clinical and educational group sessions, are chaired by staff.

We continue our linkage with 30 community agencies and conduct monthly advisory board meetings; the core health care services are provided by Cooper Hospital.

A comprehensive community recruitment outreach plan has been developed to recruit participants for the outpatient program. We have two certified addictions counselors, and two additional workers in various stages of training. As of December 31, 1992, the project staffing is 90 percent complete. The forms and method of conducting the psychosocial assessment were improved and the clinical training of the social workers was intensified by the new principal investigator/clinical director.

We have developed alternate child care services and parental training for the clients through the Gamma House programs 2 days a week. In January 1992, we added transportation services, which have had a positive impact on delivery of services and staff utilization.

Second Chance: Center for Drug-Addicted Pregnant Women
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CSAP/MCHB
SP-02017
07/15/90–04/30/95
Project Director(s):
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PROBLEM: Improving the health of New Jersey's mothers and babies is a priority of the State's Department of Health. Due in part to the Health Department's Healthy Mothers, Healthy Babies (HMHB) campaign, the State's infant mortality rate fell from 10.8 per 1,000 live births in 1985 to 9.4 in 1987. During these 2 years, cities targeted by the HMHB campaign as having large populations at high risk for poor perinatal outcome experienced a decline in infant mortality. In spite of this success, the infant mortality rate for 1988 returned to 9.8, with a large portion of the increase occurring in urban areas of the State. Preliminary assessments in these cities have concluded that pregnancy-related drug/alcohol use is a major factor in the shift. Pregnancy-related drug/alcohol use and lack of or inadequate prenatal care are well-documented causes of low birthweight, the principal cause of infant mortality.

Chemically dependent pregnant women have multiple needs, including addiction treatment needs, medical care needs, and a variety of psychosocial needs. They often face simultaneous stresses of poverty, addiction, and new motherhood with inadequate support and social resources. Exacerbating these problems are service delivery systems that are often uncoordinated and/or inadequate to meet the needs of their constituents. For example, many substance abuse treatment programs are unable to serve pregnant women in a timely manner. Many maternal health care facilities are inadequately prepared to meet the complex medical and social problems of drug-addicted/alcoholic women. Furthermore, these women are either reluctant or unmotivated to continue receiving services. Even after successful identification and recruitment, treatment program attrition rates are usually high, particularly if special followup is not provided.

GOALS AND OBJECTIVES: This project has three primary goals: (l) To promote the involvement and coordinated participation of multiple organizations in the delivery of comprehensive services for substance-using pregnant and postpartum women and their infants; (2) to improve the birth outcomes and reduce the severity of impairment among children born to substance-using women through increased availability and access to drug treatment, preventive health services, parenting education, and social support services; and (3) to decrease substance use among pregnant women.

The project objectives are to:

1. Enhance an existing program of coordinated and comprehensive perinatal and drug treatment services to include a 24-hour drop-in center, a community mothers' program to provide support to pregnant mothers, and neurodevelopmental assessment of the infants of project participants;
2. Increase the enrollment of chemically dependent pregnant and postpartum women in these treatment services (increase enrollment to 50 pregnant and 25 postpartum women and their children by the end of the first project year, and 200 pregnant and 100 postpartum women and their children by the end of the fourth project year);
3. Increase prenatal care and counseling session compliance;
4. Increase motivation to improve career and educational goals;
5. Increase the number of drug-exposed newborns enrolled in pediatric primary care;
6. Improve knowledge, attitudes, beliefs, and behaviors as they relate to drug use and high-risk sexual behavior;

7. Decrease the low birthweight rate among chemically dependent pregnant women; and
8. Decrease the percentage of positive postpartum drug screens.

METHODOLOGY: Under the leadership of the New Jersey Department of Health, this project will fill gaps in an existing comprehensive perinatal/alcohol and drug treatment service for chemically dependent pregnant women and their infants by increasing the duration of program involvement from 6 weeks postpartum to 18 months postpartum. The existing service is located at St. Peter's Medical Center in New Brunswick, a major city in the third most populated county of the State. The enhanced services will include: (l) A family resource center; (2) a community mothers' program which provides neighborhood support to enrolled participants; and (3) a neurodevelopmental assessment and followup program for the infants of project participants. A position at the State level has been filled to provide coordination and to develop and implement the evaluation of this project.

To reach the project goals, State and local staff have:

1. Established a Perinatal Addictions subcommittee of a New Brunswick Healthy Mothers, Healthy Babies Coalition;
2. Expanded service hours and renovated the existing facility to accommodate the drop-in center;
3. Expanded staff and services of the existing outreach and clinical team to include an outreach coordinator, six community moms, and an additional social worker, drug treatment counselor, and pediatric nurse;
4. Advertised the enhanced services countywide;
5. Developed/implemented a training program for community mothers;
6. Assigned each participant to a community mother; and
7. Provided neurodevelopmental Nursing Child Assessment Satellite Training (NCAST) assessments, followup, and referrals as needed for infants of all project clients.

EVALUATION: Project evaluation will be coordinated with other evaluation projects within Maternal and Child Health Planning and Regional Services. Maternal and infant outcomes will be compared with outcome data from three New Jersey State-funded perinatal addiction programs. Additional comparisons will be made, using outcome data collected on women who are not enrolled in perinatal addiction services but who received perinatal and pediatric care through the statewide HealthStart program.

Changes in knowledge, attitudes, behaviors, and beliefs will be measured, using a survey tool adapted from the Perinatal AIDS Prevention Project of the Centers for Disease Control and Prevention. Topic areas include sexuality, drug use, family planning, parenting, career and educational motivation, social support, family resources, life stress, psychological adjustment, and family violence. Satisfaction of prenatal and group counseling services will be measured using standardized patient satisfaction and group environment scales. Parenting behavior will be assessed using NCAST and the Maternal Confidence and Maternal Child Relational Evaluation. The survey tool will be administered upon intake and at 6, 12, and 18 months after intake. The experience of the community moms, from both their own perspective and that of their clients, will be measured using both closed- and open-ended questionnaires. Neurodevelopmental assessment will be carried out using a number of instruments including Brazelton Neonatal Behavior Assessment Scales, Bayley Scales of Infant Development, language evaluation scales, and The Life Stress Scale. In addition, electroencephalograms will be performed on infants.

EXPERIENCE TO DATE: All project staff have been hired, including a drug counselor, social worker, pediatric nurse, outreach coordinator, and six community mothers. We have served approximately 130 patients since the inception of the program. Approximately 75 percent of our clients have delivered normal birthweight babies and approximately 90 percent of all infants have received all required pediatric care. There has been an overall negative drug screen rate of 85 percent. Approximately half of the mothers have agreed to have their children participate in neurodevelopmental assessments. All children have participated in NCAST assessments. The HMHB coalition of Brunswick has developed a perinatal addiction

subcommittee which has met regularly and has contacted and educated the community about the local project and perinatal addictions. Contacts have been established with the pediatric, legal, social services, educational, and religious communities.

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CSAP/MCHB
SP-01450
09/30/89–05/31/94
Project Director(s):
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PROBLEM: In Albuquerque, New Mexico, in 1988, approximately 200 babies were born at University Hospital who were exposed to drugs and/or alcohol. Although several human service agencies offered a variety of services to substance-abusing women, women seldom sought these services on their own and efforts to treat these women were often uncoordinated.

GOALS AND OBJECTIVES: The program has established the following goals and related objectives:

Goal 1: Promote the involvement and coordinated participation of multiple organizations in the delivery of comprehensive services for substance-using pregnant and postpartum women and their children.

Objective: During each year of the grant period, coordinated, comprehensive services from 6 participating organizations will be used by at least 20 substance-using pregnant women who are referred by the 29th week of pregnancy.

Goal 2: Decrease the prevalence of drug and alcohol use among pregnant and postpartum women.

Objectives:

a. During each year of the funding period, 20 pregnant and/or postpartum women will complete a 10-week substance abuse counseling program;

b. During each year of the funding period, 75 percent of the women admitted to the program will have negative toxicology screens by the last month of pregnancy;

c. By the end of the 5-year grant period, 60 percent of all women admitted to the program will have completed treatment in all six Milagro Program treatment components;

d. At 6 months postpartum, 65 percent of women enrolled in the Milagro Program will have remained drug free or will have limited their drug use to a prescription methadone program monitored by the Milagro Program;

e. At the end of 10 weeks of educational presentations, 65 percent of women admitted to the program will show an increased awareness of the effects of drugs and alcohol on themselves and their fetuses; and

f. By 6 months postpartum, 60 percent of patients enrolled in the Milagro Program will have identified living situations and lifestyle behaviors that make it more difficult to reduce drug and/or alcohol abuse.

Goal 3: Improve birth outcomes among women who used drugs and alcohol during pregnancy, and decrease the incidence of infants affected by maternal substance use.

Objectives:

a. By the end of the funding period, 75 percent of the women admitted to the Milagro Program will have received high-risk prenatal care by clinic appointment every 2 weeks following admission;

b. Eighty percent of the women enrolled in the Milagro Program will deliver babies of full gestational age, of average birthweight, and with no physical anomalies resulting from drug and alcohol use;

c. Eighty percent of newborn babies in the Milagro Program will be discharged from the hospital within 4 days; and

d. Ninety-five percent of women who deliver in the Milagro Program will not experience obstetric complications during pregnancy or at delivery.

Goal 4: Reduce the severity of impairment among children born to substance-using women.

Objectives:

a. Eighty-five percent of Milagro Program babies will be seen by the Milagro pediatrician at least four times each year for 4 years or until termination of the grant;

b. Eighty-five percent of Milagro Program babies will have behavioral and motor development within the normal range;

c. Less than 10 percent of Milagro Program babies will be referred to Child Protective Services; and

d. Seventy-five percent of Milagro Program mothers will have consistent Nursing Child Assessment Satellite Training (NCAST) scores above 35 on the Home Observation of the Environment (HOME) Inventory by the time the infant is 2 years old.

METHODOLOGY: Under the administrative umbrella of the University of New Mexico School of Medicine's Department of Obstetrics and Gynecology, the Milagro Program provides a comprehensive array of services to women who are pregnant and chemically dependent. Services offered include substance abuse counseling in the form of group, individual, and family psychotherapies; prenatal care under high-risk protocols; labor and delivery; home-based nursing/case management services; parenting classes; and pediatric followup for all infants.

Beginning in July 1992, the program also offers residential care during pregnancy and through 1 year postpartum, if needed. The residential facility is located temporarily in a wing of the hospital until construction of the building is completed in May 1993.

Admission criteria facilitate enrollment of women up to 29 weeks of gestation. All women complete a 10-week substance abuse group course that provides educational and cognitive therapies related to substance use, the effects of drugs on the fetus and mother, the identification of triggers to use, and the need to change behaviors in an effort to remain abstinent. Home visits are made every 2 weeks for prenatal patients, and all patients are followed in a weekly prenatal clinic.

Following the birth of the infant, the mother and child are enrolled in parenting classes and the child is followed in a pediatric clinic designed to monitor the child's development on an intensive level. All children born in the Milagro Program are followed until 4 years of age.

EVALUATION: Measures included in the evaluation process include:

Obstetrics: Number of prenatal visits, birthweight and gestational age at delivery, incidence of obstetric complications, incidence of nonobstetric complications, NCAST scores, urine screens, and number of fetal/neonatal deaths.

Substance abuse: Extensive demographic data, Addiction Severity Index (ASI) scores, Beck Depression Inventory scores, toxicology screens, and patient self-reports of drug use.

Neonatal: Apgar scores, cord blood gases, congenital malformations, genetic syndromes, head circumference, withdrawal status, length of hospital stay, and urine screens after delivery.

Pediatrics: Bayley Scales of Infant Development, Movement Assessment of Infants, Miller Assessment for Preschoolers, Peabody Developmental Motor Scales, number of visits to the emergency room or acute care clinic, child immunizations, Carey's Revised Infant Temperament Questionnaire, and Maternal Perception Questionnaire.

EXPERIENCE TO DATE: The Milagro Program is now in its fourth year of operation, serving a client population with the following characteristics: 82 percent of the women we have treated are Hispanic; heroin is the drug of choice for most of the treatment population, although cocaine and benzodiazepines are also popular in the Albuquerque drug subculture. Most patients admitted to the Milagro Program are unemployed, live below the Federal poverty level, and receive Medicaid benefits. The program itself is well received by the patients; they report feeling that it is important to have a clinic that focuses on the issue of perinatal substance abuse, with staff trained in chemical dependency counseling.

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CSAP/MCHB
SP-02464
03/01/91–02/28/96
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PROBLEM: Despite improvements in prenatal care outreach and enrollment into prenatal care, pregnancy outcomes for substance-abusing women remain poor. High infant mortality, high incidence of low birthweight births, and high foster care enrollment are major problems in the Bronx.

GOALS AND OBJECTIVES: The project goals are to improve the pregnancy outcomes of substance-abusing women, to minimize the negative sequelae of drug exposure on fetuses and infants, to strengthen mothering competencies, and to decrease the women's reliance on drugs and involvement in addictive lifestyles.

The project objectives are to:

1. Enroll and retain substance-abusing women in comprehensive prenatal care;
2. Increase the women's understanding of the relationship of substance abuse to pregnancy outcomes;
3. Assist women in identifying positive lifestyle and self-care opportunities;
4. Assist women in learning about HIV infection and transmission;
5. Teach women how to care for and relate to their newborn and infant;
6. Minimize the negative effects of cocaine and other drug exposure on the newborn and infant; and
7. Promote the optimal growth and development of the infant.

METHODOLOGY: The hypothesis is that the comprehensive, decentralized, community-based Bronx Perinatal Addiction Services Project will improve the perinatal outcomes for pregnant substance-abusing women and promote the maternal-infant relationship.

Components of the program include:

1. Targeted outreach and education.
2. Comprehensive case management, systems advocacy, and referral services.
3. Assistance in gaining prompt entry into quality prenatal, postpartum, and pediatric care, and drug and alcohol rehabilitation programs; psychosocial support and self-help groups; mother-child play groups, parenting education, and preparation for childbirth; stress management and postpartum physical fitness sessions; and selected topical workshops.
4. Nutritional light breakfasts/hot lunches and session-related child care.

Community involvement is also a component of the project. MotherCare staff have established cooperative linkages with area health and human service providers and community-based organizations; staff also provide educational presentations to provider and consumer groups on issues of perinatal substance abuse.

The project is built upon the outreach, prenatal care, information, and referral infrastructure already developed by the Bronx Perinatal Consortium (BPC). Other BPC programs (e.g., the Community Health Worker Program) support this project.

EVALUATION: Evaluation is focused on testing the project hypothesis and includes both quantitative and qualitative analyses. Analysis will be conducted to test for a response effect of the services on the dependent variables. In addition, analysis will be used to compare the outcomes of project participants with comparable subgroups of pregnant substance abusers and pregnant nonsubstance abusers from the Bronx.

EXPERIENCE TO DATE: This project has been expanded to include not only support groups, but to provide comprehensive case management, social advocacy and referral services, and a program of group encounters. The project contracted with group leaders, instructors, and presenters to provide onsite services. The project has also developed a collaborative case-appropriate relationship agreement with a hospital obstetric service for the purpose of early intervention.

Comprehensive Paraprofessional Case Management for Substance-Abusing Pregnant and Postpartum Women and Their Children

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CSAP/MCHB
SP-02769
03/01/91-02/28/96
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PROBLEM: Recent empirical evidence in the literature documents an increase in the prevalence of maternal drug use, particularly use of crack cocaine, during pregnancy. In New York City, the proportion of birth certificates indicating maternal illicit substance use tripled from 1982 to 1988. The scourge of unprecedented high rates of morbidity and mortality among substance-abusing women and their children is being confronted by an inaccessible, ill-equipped, fragmented, and sometimes nonexistent health and human services delivery system which cannot comprehensively meet the needs of this burgeoning population. Substance abuse treatment, obstetric/gynecologic/pediatric care, nutrition, and family support services (e.g., child care and parenting training), if and when available, are geographically separate and uncoordinated.

GOALS AND OBJECTIVES: This project has four primary goals:

1. Develop and implement an effectively coordinated comprehensive service system for substance-abusing pregnant and postpartum women and their children in the South Bronx;
2. Decrease the incidence of drug and alcohol use among pregnant and postpartum women with young children;
3. Improve the birth outcomes of substance-abusing women participating in the treatment and support program at the Lincoln Hospital Acupuncture Clinic; and
4. Reduce the severity of impairment among young children whose mothers abuse substances.

The project objectives are to:

1. Provide comprehensive case management by peer counselors;
2. Make available drug-free acupuncture, addiction counseling, and social support (e.g., Narcotics Anonymous);
3. Develop and implement treatment plans for postpartum women and women with young children;
4. Provide support and guidance to expedite utilization of needed health and social service programs;
5. Offer prenatal education classes;
6. Make available onsite services provided by a certified nurse-midwife;
7. Develop, implement, and evaluate an enhanced parenting skills training curriculum; and
8. Provide an enrichment room where parents and children can engage in developmentally appropriate learning and play activities.

METHODOLOGY: Clients who are pregnant and consent to participate in the program will receive the existing services provided by Lincoln Hospital Acupuncture Clinic. These services include daily acupuncture treatments, daily urine toxicology screens, addiction counseling, midwifery services, Narcotics Anonymous groups, and women's rap groups. Clients participating in the program receive additional supportive case management services from a peer counselor who encourages participation in parenting and childb[illegible] education classes and use of the parent-child resource room.

EVALUATION: Process evaluation measures include monitoring the peer counselors and their intervention, collecting data on services provided, and assessing parent-child participation in the parent-child resource room.

Outcome evaluation measures include relapse prevention, pregnancy outcomes, and changes in parenting skills and feelings of empowerment. A suitable comparison group will be established within the Lincoln Acupuncture Clinic population, once all caseloads are filled to capacity. It is expected that clients who participate in this program and are provided with additional support will more effectively recover from their addiction compared to those clients who do not participate in the program.

EXPERIENCE TO DATE: Terms of an agreement were successfully negotiated with the subcontractor. An evaluator and seven full-time program staff, including a supervising social worker, early childhood specialist, data manager and four peer counselors, were hired as of March 1992. In July 1992, full operation of the program began, including intake of pregnant substance abusers, provision of case management by peer counselors, early intervention services in the resource room, and ongoing supervision and support (including individual and group counseling). Acupuncture, prenatal care, and addiction counseling continue to be available. Evaluation research has begun with the development of a repeated measures design using in-person interviews. A data base has been established for both process and outcome analyses.

Healthy Babies Program
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CSAP/MCHB
SP-01876
07/15/90–04/30/95
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PROBLEM: Perinatal chemical dependency has a uniquely devastating physical and social effect, damaging not only the woman's physical and emotional health but also the health of her children, family, and community. Physical damage can include malnutrition and infection, thereby increasing the risk of a premature, low birthweight baby. The infections most prevalent among substance-abusing women are hepatitis, urinary tract infections, tuberculosis, herpes, gonorrhea, syphilis, pneumonia, and AIDS. The exposure of the fetus to substance abuse can result in passive addiction. At birth, a substance-exposed child will most likely suffer withdrawal and may suffer further complications such as apnea, mental retardation, brain hemorrhages, and infection. Abuse of drugs and alcohol during pregnancy is also a major contributing factor to the high rates of low birthweight and infant mortality (March of Dimes, 1988). The few programs available for pregnant substance abusers have limited beds and are not located on Staten Island. In addition, the programs deal solely with the woman's addiction, not with other necessary issues in her life. These structured, traditional programs have little attraction to engage a pregnant mother in services. Nontraditional, innovative programs need to be developed to fulfill the unmet needs of the woman, leading her to a healthier life for herself and baby.

GOALS AND OBJECTIVES: The Healthy Babies Program has two main goals: (1) Promote the involvement and coordination of multiple service providers in order to organize care and services given to pregnant substance abusers; and (2) provide comprehensive and innovative coordinated services to pregnant women which will include drug rehabilitation, individual and family counseling, self-help groups, and classes in parenting skills, exercise, and nutrition.

The program objectives are to:

1. Provide comprehensive drug rehabilitation and case management services to enrolled participants;
2. Provide extensive outreach to other health care and social service providers to coordinate services to pregnant women and pregnant substance abusers;
3. Provide extensive outreach into the community to enroll participants; and
4. Coordinate additional services needed by participants, including prenatal care, public assistance, and housing.

METHODOLOGY: The Healthy Babies Program provides drug rehabilitation, counseling, and case management services on an outpatient basis to pregnant substance abusers. Onsite services include urine testing, drug counseling, individual and family counseling, educational classes, self-help classes, and babysitting services. Pregnant addicted women are referred to the Healthy Babies Program by various medical and social services agencies, as well as by community residents. Self-referrals are also accepted.

To reach our program goals, we will:

1. Maintain clearly defined linkages between medical and social service providers and the Healthy Babies Program to provide consistent and continuous care for clients in a comprehensive mode, thereby avoiding unnecessary duplication;

2. Through extensive community outreach, identify and enroll those pregnant substance-abusing women who are not receiving drug counseling, prenatal care, or social services in program services;
3. Provide a broad range of well-coordinated services which include drug counseling, prenatal care, advocacy, and individual and family counseling, both onsite and through referral;
4. Provide escort services, parenting education, group counseling, home visits, and other support services to assist clients in obtaining and continuing needed services (e.g., drug counseling and prenatal care);
5. Advocate within the community to increase services for substance-abusing women;
6. Increase utilization of early and continuous prenatal care by the target population;
7. Reduce complications of pregnancy by developing effective coordination of services among all agencies or services used by the women; and
8. Maintain a caseload of 15 women in the program, with a total of 50 women enrolled within the first year. Maintain a 10 percent success rate of participants completing the program.

EVALUATION: A process evaluation will include extensive data collection on needs assessments of participants, utilization of onsite services, and continuation of prenatal care services. An outcome evaluation will be based on birth outcomes and the retention of parental rights by participants.

EXPERIENCE TO DATE: The necessary assessment tools have been developed, and a computer program has been designed to compile and monitor process evaluation information. The program opened in June 1991 with two of the three staff positions filled. To date, 28 women have used the program services (12 current active cases). Eighteen babies, including 2 sets of twins, have been born during their mothers' participation in the program. Only two of these infants suffered negative effects from their mothers' drug use. The program is now fully staffed, and we reached our full caseload as of February 1992. The program is still in a growth phase, with staff and administrative personnel learning from their experiences with clients and adjusting the program accordingly.

Infant Nursery, Caregiver Education, and Parent Training

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CSAP/MCHB
SP-03617
08/15/91-05/31/95
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PROBLEM: There is increased clinical and research evidence of the wide array of potential negative consequences of maternal use of alcohol and drugs to offspring.

Early intervention programs for other biologically at-risk or handicapped infants have proven successful in ameliorating the effects of biological impairments on mental development and behavioral adjustment. Yet specialized programs for cocaine-exposed babies are scarce. Moreover, programs focusing on the parent-child unit are seldom available in spite of the fact that these programs are associated with the largest developmental gains for children.

Substance-abusing mothers with drug-exposed infants who enter foster care placement pose a special challenge due to the multiplicity of their programmatic needs. Immediate entry by the mother into a drug treatment program should be sought. Other treatment goals should be simultaneously pursued. Mother-infant bonding in the context of an often unresponsive infant should be facilitated.

GOALS AND OBJECTIVES: This project has three primary goals and related objectives:

Goal 1: Improve the availability and accessibility of treatment services for substance-abusing mothers with infants and young children.

Objective: Substance-abusing mothers will have weekly contact with a case manager from Brookwood Child Care who will help provide and monitor drug rehabilitation, medical, housing, financial aid, employment training, and crises intervention services.

Goal 2: Reduce the severity of impairment among drug-exposed infants and toddlers born to substance-abusing mothers placed in the home or in foster care.

Objectives:

a. Infants will show a positive change in cognitive development as measured by a standard psychometric test; and

b. Infants will demonstrate improved behavioral modulation and attention skills as measured by a clinical rating and behavior problem checklist.

Goal 3: Improve the parenting ability of substance-abusing mothers (with infants in the home and in foster care) and foster mothers caring for drug-exposed infants/toddlers.

Objectives:

a. Substance-abusing mothers with infants in foster care will have increased contacts with their children;

b. Substance-abusing mothers with infants in the home or in foster care will demonstrate improved interactive skills with their infants in the context of a therapeutic nursery; and

c. Foster mothers will demonstrate improved interactive skills with their foster infants in the context of a therapeutic nursery.

METHODOLOGY: Infant Nursery, Caregiver Education, and Parent Training (INCEPT) activities are conducted through intensive case management and through infant, mother, and joint groups. Intensive case management includes: Ongoing multilevel assessment of concrete and psychological needs, monitoring attendance and progress in the drug program, coordinating services with other agencies serving substance-abusing mothers, arranging the removal of barriers to access to services, coordinating goals with other service agencies, using outreach extensively, providing supportive counseling to substance-abusing mothers in the home environment, and assisting them in crisis situations. The aim of the mothers' groups is to identify thoughts and feelings that may hamper the development of positive interactions between mother and infant. The aim of the joint groups is to provide a supportive nurturing environment where sensitive maternal behaviors are practiced and reinforced.

EVALUATION: Evaluation of program processes is centered around the assessment of patterns of maternal participation in the INCEPT program and the maternal and child characteristics of those served. Quantitative information collected on substance-abusing mothers includes: Age, ethnicity, years of education, and type and pattern of drug for those who stay in the INCEPT program 9 months or more and for those lost to attrition.

Infant/toddler descriptors include: Birthweight, gestational age, size for gestation, Apgar scores, number of postnatal complications, and occurrence of pediatric complications during the first year of life. Maternal and child descriptors are used as predictor variables in multiple regression analyses in order to predict program outcomes.

A pretest/posttest statistical design is employed to assess the impact of the INCEPT program on maternal and child health measures. Maternal measures include attendance in drug program, parental involvement in the INCEPT program (e.g., visits to the therapeutic nursery, and number of contacts with the case manager), parental sensitivity during free play (via videotapes of mother-child interactions using the Crittenden CARE Index), and quality of the home environment (using the Home Observation for Measurement of the Environment Inventory). Child measures include change scores in developmental level (using the Bayley Scales of Infant Development), in behavior adaptation (using the Infant Behavior Record or the Child Behavior Checklist 2/3), and in communicative ability (using the Sequenced Inventory of Communication Development).

Maternity, Infant Care—Treatment Intervention Program for Pregnant and Postpartum Women and Their Infants

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CSAP/MCHB
SP-01150
09/30/89–05/31/94
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PROBLEM: Chemical dependency on cocaine, crack, marijuana, heroin, alcohol, and cigarettes in low-income women of childbearing age in New York City is at epidemic proportions and has uniquely devastating physical and emotional consequences for the women, their unborn children, and the fabric of family life. The negative impact on the child's normal growth and development lays a foundation for a pattern of failure in school and society and perpetuates the cycle of poverty and substance abuse. Statistics indicate that the number of infants born in New York City with symptoms of drug withdrawal doubled during 1987, with a 50 percent increase during the first 4 months of 1988.

The social and medical complications of substance abuse during pregnancy are compounded by the direct effects of AIDS on the lives of the women and their infants and by the lack of availability of medical and social services. By November 1988, there were 2,123 women of reproductive age infected with HIV in New York City. New York State statistics indicate that 97 percent of substance-abusing women giving birth each year are not in treatment programs. Moreover, existing drug treatment programs (traditionally oriented to the male client) are ill-equipped to provide the comprehensive array of services that are essential to motivate and educate pregnant addicts.

GOALS AND OBJECTIVES: The goals of this project are to reduce substance abuse, improve birth outcomes, and reduce the extent to which infants are adversely affected by maternal substance use in a group of maternity patients in three new York City prenatal clinics, by developing a comprehensive, case managed approach using already existing community resources and encouraging the development of new ones.

The project provides target women with onsite individual and group counseling to help them become drug free. In addition to standard prenatal care services, patients of the Maternity, Infant Care—Treatment Intervention Program for Pregnant and Postpartum Women and Their Infants (MIC-TIP) also receive drug counseling and support services including parenting education, home visits to patients who have missed medical or counseling appointments to encourage their return to treatment, and escort services to assist patients desiring assistance in negotiating complex bureaucratic systems.

METHODOLOGY: The Maternity, Infant Care—Family Planning Projects division of the Medical and Health Research Association of New York City, Inc. (MIC-FPP/MHRA), has selected 3 of its 10 maternity clinics in areas with well-documented high rates of late or no prenatal care and a high incidence of substance abuse as sites for this demonstration project. The target population includes pregnant or recently pregnant women using drugs or alcohol. MIC-TIP uses a comprehensive, case-managed approach that involves multiple drug treatment, social service, and community organizations, and enhances the availability and accessibility of services both onsite and through referral. The multifaceted program of community education and outreach builds on the solid linkages that MIC-FPP/MHRA has developed in the communities. We anticipated that 560 women would be identified as candidates for the program over the 3-1/2-year intake period and that 60 percent (280) would enroll in the program.

To reach our programs goals, the staff will:

1. Develop clearly defined modes of interaction with specific human service agencies to strengthen linkages, avoid duplication, and prevent unmet patient needs;

2. Identify and enroll both current MIC-FPP/MHRA substance-abusing patients and pregnant substance abusers in the community who are not receiving prenatal care;
3. Provide a broad range of well-coordinated maternity and drug treatment services, including intensive followup both onsite and through referral;
4. Provide postpartum home visits, escort services, parenting education, and other supportive followup interventions to assist patients in obtaining and using existing community services;
5. Increase utilization of early and continuous prenatal care by the target population;
6. Reduce complications of pregnancy and delivery by exchanging information rapidly with our backup hospitals so that the earliest possible intervention is available; and
7. Monitor the care of infants wherever possible and provide toddlers who are between 18 and 24 months with a one-time pediatric developmental assessment and provide close followup of referrals.

EVALUATION: Process evaluation includes extensive data collection on services provided to individuals. In addition to their monitoring function, process data will permit the examination of the effect of various service components on patient outcomes. Outcome evaluation will consist of a research design in which the outcomes (reduced maternal substance abuse, improved birth outcomes, and family stability) of program participants and two comparison groups will be examined. The comparison groups will consist of: (a) Maternity patients identified as substance abusers who do not accept referral into the program at the three target clinics; and (b) maternity patients identified as substance abusers who attend MIC-FPP/MHRA clinics but not participating in the demonstration project. Urine toxicologies, the Addiction Severity Index, and the Gesell scales are some of the measures used in the evaluation process, although the Addiction Severity Index has proved a cumbersome instrument to administer.

EXPERIENCE TO DATE: Most program and research components at both the treatment and comparison sites have been in place for more than 2-1/2 years. Pediatric developmental assessments of babies between the ages of 18 and 24 months began in April 1992. A volunteer peer counselor joined the program in February 1992 to assist outreach staff in making home visits and providing escorts.

Client enrollment began in March 1990. Since that time (through August 1992), 345 patients received treatment services in the 3 treatment clinics, and 214 clients were targeted for research activities in the comparison clinics. These figures are well above the projected annual registration of 160. Accordingly, in its second year, the program was obliged to reduce the number of community education and outreach presentations made by outreach staff and concentrate energies on services to existing clients. Since program participants tend to require more intensive services than the part-time counseling staff can provide, often the goal of the program's intervention is to work with resistant clients and bring them to a point of readiness for engaging in a treatment program or cluster of services that would better serve them.

It appears from data collected so far that MIC-TIP's treatment and comparison group patients may not be similar with respect to ethnicity and nativity, as was originally thought. These differences are being taken into account in the overall analysis of process and outcome data.

Among a group of 109 treatment patients who had urine toxicology tests performed at intake and prior to delivery, a significant reduction in the number of positive toxicologies was observed over the course of the pregnancy. Additional project outcomes will be analyzed following acquisition of more clients' birth and delivery records.

Multicultural Prenatal Drug and Alcohol Prevention Project
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CSAP/MCHB
SP-01781
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PROBLEM: Recent reports indicate that the number of women using alcohol and other drugs during pregnancy is startlingly high, yet women are seriously underrepresented in drug and alcohol treatment programs. Few of these programs offer specialized services for women, and fewer still offer services for the unique needs of pregnant women. Drug-abusing women who have children or are currently pregnant may avoid treatment for fear of losing custody of their children.

Alcohol and other drug dependency has a greater negative effect on the health of African-American/ Caribbean and Hispanic populations. This may be due in part to factors related to accessibility of services and the appropriateness (in culture and language) of existing services and educational programs. Educational messages about substance use during pregnancy are often not tested within specific cultural and literacy contexts, and may be least likely to reach the women at highest risk for drug use during pregnancy—those who are already abusing substances before their pregnancy and those who are isolated or in crisis. In addition to the lack of access to drug treatment services, problems in accessing health care in general and differing cultural attitudes regarding early prenatal care contribute to the fact that low-income African-American/Caribbean and Hispanic women have low rates of early prenatal care and high rates of infant mortality and morbidity.

GOALS AND OBJECTIVES: Through a series of educational support groups and referral activities at two women's centers (located in a low-income African-American/Caribbean community in New York City and a Mexican American community in Chicago), the Multicultural Prenatal Drug and Alcohol Prevention Project (MPDAPP) aims to achieve the following goals:

1. Decrease the number of women using drugs or alcohol before and during pregnancy;
2. Increase the number of women of childbearing age and pregnant women receiving treatment services for alcohol and drug use; and
3. Increase the number of drug-abusing pregnant women receiving prenatal care.

Over the 5 years of the project, each center will recruit a total of 230 women of childbearing age who are not currently pregnant (group A). In addition, each center will recruit a total of 100 women who are currently pregnant and using alcohol or other drugs. The project has both a primary and secondary prevention focus, with the overall goal for group A aimed at reducing drug use in general and preventing drug use during pregnancy, and the overall goal for group B aimed at reducing or eliminating drug use during their current pregnancy, thereby reducing the severity of consequences for infants born to these women. Specific outcome objectives follow:

1. Program participants will attend weekly educational support group meetings aimed at reducing drug use during pregnancy for a period of at least 3 months;
2. Program participants will be able to identify the risks associated with drug and alcohol use during pregnancy;
3. Program participants will seek drug treatment where appropriate for current alcohol or drug use problems;
4. Program participants will seek prenatal care services as referred by the center; and

5. Program participants will reduce or eliminate the use of licit and illicit drugs before or during their pregnancies.

The specific process objectives are to:

1. Train at least five staff members at each of the two sites in recognizing potential drug and alcohol problems in women of childbearing age;
2. Develop culture-, gender-, and literacy-sensitive educational materials related to drug use during pregnancy for distribution to community groups (one in Spanish and one in Haitian Creole);
3. Offer at least two educational support group sessions per week at each site related to drug prevention education and group support for problem solving (one for women of childbearing age and one for pregnant women);
4. Establish at least one 12-step group at each site specifically for women of childbearing age and pregnant women;
5. Establish a referral network of drug and alcohol treatment programs and prenatal services available to women in their respective communities;
6. Refer each of the women who are currently using drugs to an appropriate drug or alcohol treatment resource;
7. Refer each of the women who are pregnant and using drugs to appropriate prenatal care services;
8. Serve as case managers for each pregnant, substance-abusing woman seen;
9. Use and strengthen existing volunteer networks to provide child care and transportation services to women who are seeking prenatal and/or drug treatment services; and
10. Develop a handbook as a supplement to the existing publication, *Alcohol and Drugs Are Women's Issues—Volume Two: The Model Program Guide,* edited by Paula Roth, regarding this model prenatal drug abuse prevention program.

METHODOLOGY: The project will be carried out in four phases over the 5-year period. Phase I (16 months) consists of collection and assessment of existing educational materials, development and modification of materials appropriate to the target audience(s), development and refinement of evaluation instruments, staff training, coordination of the community network, and preliminary recruitment of women. Phase II (12 months) will include development of a formal protocol for prenatal and drug treatment referral, additional recruitment of women, initial implementation of the educational support and 12-step group components, and outcome and process evaluation. Phase III (36 months) will consist of the full-scale implementation of educational support and 12-step group programs, referral services, and process and outcome evaluations. The educational support groups focus specifically on issues related to women's use of substances and on developing skills and coping techniques for managing problems without substances. Furthermore, a supportive network is developed through the groups, thereby providing additional resources for problem solving. Phase IV (6 months) will consist of data analysis and report writing. Also during this time, the writing and development of a dissemination plan for the supplemental handbook will take place. Educational support groups, as well as referrals for drug treatment and prenatal care, will continue throughout the duration of the project period.

EVALUATION: The evaluation is being conducted by an independent evaluator from The American Health Foundation in New York City. The evaluation uses a pretest-posttest design with 1-year followup. The continuous entry of new women into the program for support groups provides an opportunity to conduct a series of pretest and posttest measurements throughout the project period. In addition, a series of comparison measurements on groups of women using other center services and other groups of women in the respective communities can be conducted over the course of the project period. The identification of appropriate comparisons and the collection of data from these groups in a quasi-experimental pretest-posttest design will take place beginning in the third year of this 5-year project.

The plan for outcome evaluation is designed to assess the degree to which specific program outcomes are achieved (i.e., reduction in drug use before and during pregnancy, increases in knowledge regarding prenatal

drug use, and increases in drug treatment and prenatal care sought by women at each of the centers). Instruments were developed by project staff, pilot tested at both demonstration sites, and revised to measure a variety of knowledge, beliefs, attitudes, and practices regarding substance use before and during pregnancy. These include perceived susceptibility to and severity of prenatal drug use, self-efficacy, perceived social support, coping styles, and skills in successful management of daily problems and stresses without the use of substances. In addition, measures of self-reported drug use practices including both licit and illicit drugs were developed. In all cases, issues specific to the unique cultural groups served by the centers were considered.

The same measurements are conducted for women of childbearing age who are not pregnant (i.e., the primary prevention group) and a smaller group of already pregnant substance users (the secondary prevention group). In addition, case management files document prenatal and drug treatment referrals, appointments kept, and pregnancy outcomes for women in the secondary prevention group.

The process evaluation is designed to assess the degree to which specific process objectives have been met. Surveys were developed to measure staff and participants' perceptions of support group sessions; cooperating agencies' perceptions of the program; documentation of referrals made, appointments kept, volunteer hours logged, and women served by the program; and staff knowledge, attitude, and practices. In addition, project evaluation staff observe and keep logs of staff training sessions and support group sessions (when appropriate) and interview staff.

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SP-01691
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PROBLEM: Chemical dependency adversely affects the health of both mother and child, as well as the broader relations of the family. Substance-abusing women have elevated maternal mortality rates, shorter life expectancies, and increased risk for many chronic medical and social problems. Infants born to chemically dependent women have higher morbidity and mortality rates and are, on average, small for gestational age. In addition to these health problems, the population of substance-abusing women and their children are at increased risk for HIV infection.

Substance-abusing women have difficulty being engaged in ongoing drug treatment programs and make poor use of all medical resources. The structural and organizational characteristics of traditional health care settings deter chemically dependent women from seeking such services. The array of services needed is typically not available at a single site.

GOALS AND OBJECTIVES: The three primary goals of this project are to: (1) Promote the involvement and coordinated participation of multiple organizations in the delivery of comprehensive services for substance-using pregnant and postpartum women and their infants; (2) improve the birth outcomes and reduce the severity of impairment among children of substance-using women through increased availability and accessibility of drug treatment, preventive health services, parenting education, nutrition education, and social support services; and (3) promote complete rehabilitation of participants and their reintegration into mainstream society as independent and productive individuals.

The project objectives are to:

1. Provide comprehensive services at a drug treatment center through existing community providers;
2. Provide drug treatment services to all enrolled women using various modalities, including acupuncture;
3. Provide prenatal and postpartum health care services to all enrolled women;
4. Provide pediatric health care services to the newborns and their siblings under 6 years of age;
5. Provide parenting skills education to all enrolled women and their interested partners; and
6. Assist all enrolled women and their children in accessing needed social services.

METHODOLOGY: Under the leadership of the New York City Department of Health, the Parent and Child Enrichment (PACE) Project uses the coordinated resources of three agencies in northern Manhattan, with auxilliary support from a fourth local provider. The New York City Department of Health uses its community outreach and case management services for pregnant women; Reality House, an existing outpatient drug treatment center, provides the drug treatment program, and Harlem Hospital provides the prenatal and postpartum medical care and pediatric care. The foundation of PACE is the integration of services by these three collaborating agencies in a single setting. All services are provided onsite at Reality House, except for delivery and specialized medical care, which are provided at Harlem Hospital.

Chemically dependent pregnant women who are polydrug abusers or whose drug of choice is cocaine, crack, or heroin will be referred to the PACE project by the collaborating agencies and other community agencies. The site coordinator is a parenting skills educator who manages daily operations. An intake assessment

procedure initiates the enrollment process, and eligible women work with drug counselors in groups and individually as part of the Reality House day program. The project has a full-time nurse onsite. In addition, a part-time midwife who works under the direction of the obstetrician, a pediatrician, and a nutrition specialist come to Reality House to hold weekly clinic sessions. A social worker assesses the social service needs (including housing), makes appropriate referrals, and conducts case management. Acupuncture and nutrition support services have become important components of the program.

The parenting skills specialist at Reality House conducts individual and group sessions with project participants. It is intended that PACE participants remain in the program until the index infant is 1 year of age. A portion of the PACE Project will be underwritten by Medicaid. Reality House and Harlem Hospital will bill Medicaid for eligible services. Center for Substance Abuse Prevention funds will provide service enhancement and coordination for the final project year.

EVALUATION: The evaluation includes a process-related assessment (including documentation of those aspects necessary for replication) that examines details of implementation, linkages, client satisfaction, and projected service delivery targets. Evaluation also involves assessment of the outcome or dependent variables, such as drug rehabilitation outcome. The quantitative evaluation will focus on testing the hypothesis that the comprehensive services will improve health outcomes and enhance the success of drug treatment and social rehabilitation. Comparison groups will be identified through the New York City Department of Health's data system and citywide vital records.

Self-Help Care for General Hospital Perinatal Cocaine Abuse

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09/01/92-05/31/97
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PROBLEM: The nationwide epidemic of crack/cocaine abuse among pregnant and postpartum women has precipitated a crisis in the already-threatened fabric of family structure in the inner city. Such women often face the daunting prospect of a newly opened child custody case in addition to a staggering array of chronic problems (e.g., a pattern of progressively more severe drug abuse, lack of spousal involvement, unstable housing arrangements, history of losing children to foster care placement, and coexisting psychiatric disturbances). When addiction coexists with such psychosocial problems, treatment needs to extend far beyond what any discrete hospital service or outside agency is capable of providing. Furthermore, the majority of the most severely impaired cocaine-addicted pregnant women never seek prenatal care or attention to their drug problem until the point at which they deliver.

GOALS AND OBJECTIVES: This project has three primary goals:

1. Promote the involvement and coordinated participation of multiple organizations in the delivery of integrated, comprehensive services for cocaine-abusing pregnant and postpartum women and their infants;
2. Increase the availability and accessibility of prevention, early intervention, and treatment services for cocaine-abusing pregnant and postpartum women and their infants; and
3. Decrease the incidence and prevalence of drug and alcohol use among pregnant and postpartum women.

The project objectives are to:

1. Identify and maintain contact with all related services within Bellevue Hospital Center and outside agencies within New York City for bidirectional referrals with our comprehensive drug treatment program;
2. Increase the rate of referral of cocaine-abusing pregnant and postpartum women from referral sites (particularly from Bellevue's obstetric and pediatric services) to our peer-led comprehensive drug treatment program;
3. Improve participation of pregnant and postpartum women in the comprehensive drug treatment program, making use of the family network of support and child care;
4. Increase regular attendance of pregnant and postpartum women enrolled in the treatment program and utilization of Alcoholics Anonymous (AA) and Narcotics Anonymous (NA) groups; and
5. Facilitate client/sponsor linkage to AA/NA meeting attendance within treatment program.

METHODOLOGY: This project will enhance an existing men's/women's self-help day treatment program for cocaine addiction by providing services that target pregnant and postpartum women at Bellevue Hospital Center. A program will be developed that maintains a core of abstinence-oriented groups attended by all clients participating in the overall clinic, while introducing a track of groups that address the particular needs of cocaine-addicted pregnant and postpartum women. This track will include both didactic groups and practicums in parenting skills, child custody legal issues, and women's health.

In keeping with a structural family therapy model and with the consultation of Dr. Salvador Minuchin and associates from the Family Studies Institute, family members of clients will be included in the formulation of treatment from the outset. Child care will also be incorporated into the program operations. Extensive medical and advocacy needs will be met by aggressive linkage with resources available both within Bellevue Hospital and through local agencies. The program will also serve as a site for physician training, thereby increasing availability of qualified physicians for treatment of perinatal addiction.

Outcome of clients introduced to this enhanced model of care will be compared with that of comparable perinatal clients enrolled in the clinic prior to the enhanced model. Attendance, urine toxicology status, and psychosocial functioning will be compared with those of a prior cohort of perinatal addicted women who have been evaluated for such measures.

EVALUATION: A process evaluation will include tracking routes of referral to treatment and tracking participation of clients in all groups/components of the treatment program to determine which variables relate to outcome. Outcome evaluation (e.g., measuring substance use) of clients will be compared that of a cohort of comparable perinatal women who had participated in the self-help clinic prior to the enhanced perinatal-focused components.

An evaluation of the parenting education and child custody legal issues components will be made, using a pretest/posttest design to determine the level of knowledge obtained. An intake assessment will include basic demographics, a psychiatric evaluation, a modification of the Addiction Severity Index, the Beck Depression Inventory, and a Female Medical Status form. Ongoing changes in psychosocial status will be monitored via a counselor-rated monthly status form. Other provisional assessment instruments currently being piloted to be introduced at intake and at periodic intervals (such as at 6 months, and 12 months) include: The Nursing Child Assessment Satellite Training (NCAST) Teaching and Feeding Scales, the Network Survey, the Community Life Skills Scale, the Difficult Life Circumstances Scale, the Hudson Index of Self-Esteem and Index of Parental Attitudes, and the Adolescent and Adult Parenting Inventory (AAPI).

Using a final selection of these psychosocial psychometric measures, outcome variables will be predicted in separate regression equations. These outcome variables will include: Length of time in treatment, percentage of negative and positive results of urine tests, and changes in psychosocial functioning scores. Multiple measures of the same variable will be reduced to a single predictor variable (i.e., maximum, mean, or change, whichever is appropriate).

EXPERIENCE TO DATE: As of February 1993, our program was fully staffed. A total of 15 perinatal clients have enrolled in the treatment program to date. Programmatic changes have been instituted, introducing a track of perinatal-focused groups while maintaining a core of abstinence-oriented groups. Linkages have been established with clinics within Bellevue that serve addicted mothers and with relevant community social service agencies such as women's shelters and the Child Welfare Agency. More than 50 social service agencies have been contacted and an open house was held by project staff onsite to introduce the community of potential referral sources to our program.

Substance Abuse Prevention Program for Pregnant and Postpartum Adolescents

St. Luke's-Roosevelt Hospital Center
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CSAP/MCHB
SP-02887
09/30/90–05/31/95
Project Director(s):
Alwyn T. Cohall, M.D.
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Contact Person:
Evelyn Ullah

Through this project, St. Luke's-Roosevelt Hospital Center will augment existing prenatal and antepartum care for high-risk black and Hispanic adolescents with substance abuse prevention services. Case-managed services will be provided in a family-oriented, multidisciplinary program that coordinates substance abuse services; psychosocial support groups for pregnant and parenting adolescents, their partners, and families; obstetric and pediatric care; vocational and educational services; and parenting education. The adolescents will be encouraged to bring their partners to the sessions, as well as their children (for pediatric evaluation). A public entitlements expediter will be located onsite. The program will operate from outpatient clinics at St. Luke's during the afternoon and early evening hours, thereby allowing students and working mothers to utilize services in a convenient, comprehensive environment. In addition to the evening sessions, the pregnant and postpartum adolescents will be linked with existing hospital-based programs and appropriate community-based services. Comprehensive, continuous, and personalized services will be available through all stages of pregnancy. In addition to the array of medical resources and support programs offered at the Hospital Center, the program will provide consultation and referral to community-based treatment and service alternatives. Where possible, the patients will be registered under the hospital's prenatal care assistance program, which receives enhanced Medicaid reimbursement rates. It is anticipated that the program will become self-sufficient by the end of the project period.

The project evaluation includes clearly defined process and outcome measures for mothers and infants. Significant outcome parameters include the number of adolescents who remain drug free, as determined by urine toxicology screens; increased knowledge level of adolescent parents; the number of clients who resume educational and vocational pursuits; compliance with birth control methods; and appropriate measures of infant health.

Women in Need of Services
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CSAP/MCHB
SP-01182
07/01/90–04/30/95
Project Director(s):
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Alvaro Simmons, M.S.W.

PROBLEM: Over the past 6 years, significant data have been gathered through research studies on the obstetric inpatient service at Presbyterian Hospital. These data demonstrated a disproportionate increase in women giving birth with little or no prenatal care. At the same time, the number of infants born with positive toxicologies for cocaine has also risen. Many, if not most, of these women are young, poor, and single, with less than a high school education. This population is comprised predominantly of minority women (black or Hispanic). It has been well documented that infants exposed to cocaine throughout pregnancy have a significantly reduced birthweight, length, and head circumference, as well as significant impairment in neurobehavioral capabilities. At present, the systems in place for women who have little or no prenatal care and who are chemically dependent are complicated and difficult to access.

The Women in Need of Services (WINS) program provides acupuncture treatment and case management services to a target population that includes substance-abusing pregnant and postpartum women. These services are centrally located in the Women and Children Care Center of Presbyterian Hospital.

GOALS AND OBJECTIVES: The WINS program at the Presbyterian Hospital was designed to accomplish the following five goals:

1. Coordinate the array of services needed for substance-abusing prenatal and postpartum women, by providing case management. Service areas include drug treatment, family planning, prenatal and well-baby care, outreach, followup, crisis intervention, individual and group counseling, and family and significant other involvement. In addition, the concrete needs of the patients are addressed (e.g., housing, public entitlements).
2. Increase the availability and accessibility of treatment services for this population.
3. Reduce the severity of impairment among children born to substance-abusing women and increase the likelihood that future children will be born to drug-free mothers.
4. Decrease the number of infants placed in foster care and reunite mothers with their children who had been placed in foster care.
5. Provide outreach services to a population of substance-abusing prenatal and postpartum women to maximize compliance.

The program objectives include:

1. Coordination of services between the hospital and outside agencies such as Child Welfare Administration (CWA), as well as within the hospital among the Departments of Social Work Service, Pediatrics, Nursing, and Obstetrics/Gynecology;
2. Provision of onsite drug treatment and psychosocial services;
3. Improved identification of and outreach to substance-abusing prenatal and postpartum women who are not receiving prenatal health care and/or drug treatment;
4. Increased enrollment and retention of prenatal and postpartum substance-abusing women in a program providing a comprehensive range of services;

5. Extension of services to significant others, such as grandmothers and natural fathers, who are currently providing care to the child and who have been exempt from services in the past; and
6. Provision of an enhanced health education/parenting education program through home visits and onsite visits that will ultimately promote the importance of well-baby care, positive parenting skills, and appropriate management of drug-exposed infants, in addition to risk reduction behavior on the part of these women (i.e., safer sexual/drug use practices).

METHODOLOGY: The WINS program uses a team approach to provide counseling, education, and complete medical and substance abuse services to target prenatal and postpartum women.

Each patient entering the program is assigned to a case manager (generally the social worker) who will be responsible for completing the initial psychosocial assessment and treatment plan. At this initial entry point, a mutual contract is established between the patient and the case manager. The contract is modified as needed according to the ever-changing and unpredictable medical, psychosocial, and community needs of our patient population. It is expected that this type of case coordination with our patients will ultimately enhance their capacity to control their drug-using behavior in addition to providing the safety and nurturing that is required by their children.

The program also has a strong outreach component that is used primarily to assure compliance with care while at the same time providing staff with access to the patients' homes. This outreach component includes regularly scheduled visits by the community worker in addition to monthly visits by the case manager and the nurse educator. Each of the three social workers/case managers in our WINS program is responsible for approximately 25 patients at a given time. Program staff devote a great deal of time to coordinating the vast array of community and social agencies that play a role in keeping the mother-child dyad together. This includes our ongoing collaboration with the New York City Child Welfare Administrative Office. Throughout this ongoing collaborative effort, we have been able to reduce the number of children entering some form of foster care placement.

EVALUATION: The process and outcome evaluations for the WINS program are being conducted with the assistance of Phillliber Research Associates, an independent organization with 25 years of experience. In collaboration with WINS program staff, representatives from Phillliber Research Association have designed a diversified weekly statistical monitoring system. From the point of initial contact, the social worker or case manager begins to report activities that have taken place. This system identifies the number of patients who are assisted with placement in drug treatment programs, parenting programs, and educational programs; those who receive assistance with housing, finances, and obtaining employment; and other services that are needed. From this process evaluation, an overall picture will emerge of the level of involvement by the health care provider (in this case, the social worker). In addition, this monitoring system provides information pertaining to the number of mothers and children who remain together and the services that are necessary to support these families.

The Adult Adolescent Parenting Inventory (AAPI) is administered at the time of enrollment to assess the client's understanding of her role as a parent. Following the initial AAPI, a followup test is given every 3 months while the client remains in the program. The goal is to determine the effectiveness of our service and its impact on the client's style and/or approach to parenting.

EXPERIENCE TO DATE: The project is now fully staffed and operational. We have developed working protocols that are used as guides for the three social workers, the part-time nurse practitioner, and the community case worker. We continue to receive a significant number of referrals from the medical centers' inpatient obstetrics units, as well as referrals from the New York City Child Welfare Administrative Office. Several of our recent enrollees have come to us through word of mouth. We intend to continue publicizing our services in the community. A total of 65 active patients have been enrolled to date.

Substance Abuse Prevention and Intervention—MOMS Program
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CSAP/MCHB
SP-04710
05/01/92-04/30/97
Project Director(s):
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PROBLEM: Blue Ridge Community Health Services, Inc., provides comprehensive prenatal care services to women in a rural, four-county service area of western North Carolina. According to Mental Health Services, approximately 2,500 women of child-bearing age in this service area have substance abuse dependence disorders. This number does not include women who are currently using alcohol and drugs without a dependence problem. Our project addresses the issue of substance abuse among women seeking prenatal care by screening for risk factors in an initial assessment and following up with assessment, case management, and prevention services. During the first 6 months of our project, a baseline study established that 80 percent of prenatal clients were at risk for substance abuse. Of those interviewed, 43 percent have indicated being hit by a partner, 35 percent have been forced to have sex against their wishes, 55 percent have a history of substance abuse in their family, and 30 percent express concern about their own use.

GOALS AND OBJECTIVES: This project's three primary goals are to:

1. Increase the availability and accessibility of prevention, early intervention, and treatment services for pregnant and postpartum women and their infants;
2. Reduce severity and incidence of alcohol and drug abuse among pregnant and postpartum women; and
3. Reduce the effects of fetal exposure to alcohol and other drugs.

The program objectives are to:

1. Increase interagency cooperation and coordination of services to pregnant and postpartum women at risk for substance abuse;
2. Increase early and appropriate access to services for pregnant and postpartum women through transportation and child care services;
3. Improve education about the risks of substance abuse to women receiving obstetric/gynecologic care at Blue Ridge Community Health Services, Inc.;
4. Increase the quantity and quality of referral, case management, and followup services for substance-abusing pregnant and postpartum women who need prevention and treatment services;
5. Improve community knowledge and outreach related to substance abuse issues among pregnant and postpartum women and their infants;
6. Increase utilization and perception of social support systems for pregnant and postpartum women;
7. Improve self-esteem and coping skills among pregnant and postpartum women who are at high risk for substance abuse;
8. Increase the percentage of pregnant and postpartum women who complete prevention and treatment programs;
9. Provide parenting education through wellness groups and home visits; and
10. Provide coordination of services for problems identified among children whose mothers are enrolled in the program.

METHODOLOGY: The MOMS Program addresses risk factors for substance abuse among prenatal clients at Blue Ridge Community Health Services, Inc., and at county health departments, using a preventive model implemented primarily through case management services, home visits with clients, and wellness group meetings. Women are screened at the initial prenatal visit, and those who indicate risk factors are assigned a wellness coordinator and a "mother's advocate." The wellness coordinator follows up with a psychosocial assessment and develops a plan of care for the client. This assessment and the followup care are completed primarily through home visits. The care is supplemented by the mother's advocate service, providing transportation and supportive services to clients as needed. The MOMS team evaluates client care and needs at a weekly staffing. Other components of this preventive program are a parenting education program (also delivered primarily through home visits) and a wellness group which meets weekly and creates a positive, motivational environment for clients to address substance abuse risk factors identified on the wellness screening.

On a community level, the MOMS Program is working to increase coordination and knowledge of services through the development of a perinatal/substance abuse council which includes representatives from the agencies that provide services to pregnant and postpartum women at risk for substance abuse. This group will enable community agencies to share information about existing programs, to identify service gaps and strategize ways to meet current needs, and to work together to educate the community regarding the ongoing needs of our shared clients.

EVALUATION: Several tools have been designed and implemented to collect data for our process evaluation. The wellness screening tool identifies participants for the program and gives baseline information on the women at risk who are seeking prenatal care. Tracking/flow sheets have been developed to track the work of the mother's advocates, wellness coordinators, maternal care coordinators, and the substance abuse education information given by providers of family planning and preconceptional counseling in the health care setting. Our outcome evaluation tool is currently being developed and will have a pretest/posttest format. The series of questions on the tests will elicit information from our clients regarding abstinence, self-esteem, and basic functioning skills. The test will be administered during enrollment in the program and at a standard time following participation in the program.

EXPERIENCE TO DATE: All key staff have been hired for the MOMS program. We have been very successful in hiring a culturally diverse staff that is representative of our community and is also sensitive to the needs and issues of our target population. A substance abuse training component has been implemented which is mandatory for all staff working with the grant program. Other staff, community agency representatives, and health department nurses and social workers are also encouraged to attend the trainings. We are working to evaluate service gaps and client needs by networking with other agencies in the community and the first meeting of a four-county perinatal/substance abuse council has been planned for December 1992.

A wellness group designed to address substance abuse risk factors has been active on a weekly basis for over 2 months and has been very successful. Parenting was a major concern expressed by all the women in the group, and parenting education through home visits and group discussions is being implemented currently. The group facilitators have identified very low levels of functioning and self-esteem among group members. All of the group members smoke and by their own report are reducing their smoking. All members also have a history of substance abuse and currently report they are not using substances.

A highlight of our project has been the development of the mother's advocate program. These advocates are women recruited from our local community to provide transportation and support to our mothers enrolled in the program. This group is key in our efforts to provide education and outreach to women about available services and to provide access to services. The advocates have become known and trusted by our clients and are able to provide critical information to the MOMS team regarding risk behaviors and family systems, both for individual clients and for the general communities we serve.

Women's and Infants' Substance Abuse Program
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CSAP/MCHB
SP-01601
09/30/89–05/31/94
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PROBLEM: Many of the young women who receive perinatal medical care at Robeson Health Care Corporation (RHCC) are at high risk for substance abuse. Recent data indicate that any substance use during pregnancy jeopardizes the chance of a positive birth outcome. The data also indicate that if prevention, intervention, and/or treatment are begun during the pregnancy, the chance for a positive outcome increases.

Infants born to mothers who used drugs or alcohol during pregnancy are also in need of services. These services need to be early and intensive if any headway is to be made in reversing the damage to the fetus. There currently are no programs in our area to work effectively with this target population.

In rural areas, particularly Robeson County, there are few programs that provide for the service needs of either the mother or the child. If such programs do exist, they are often so far away that they are inaccessible. Those services usually do not provide for care of the child while the mother is receiving help, nor do they understand the cultural, social, or gender issues that the mother faces. Predictably, the mother does not often receive needed services.

GOALS AND OBJECTIVES: The goals for the perinatal and postpartum demonstration project are to show how services can be delivered in the context of primary health care practices that include enhanced perinatal health care services. Through provision of a full range of substance abuse services, the following will occur:

1. There will be a decrease in the amount of alcohol and nonprescription drugs used by prenatal and postpartum patients;
2. There will be a decrease in the effects of fetal exposure to drugs and alcohol; and
3. There will be an increase in coordination of service providers.

METHODOLOGY: This demonstration project will be part of an extensive service delivery system that has been established to meet the needs of the patients seen at the enhanced perinatal program of Robeson Health Care Corporation (a Title 330-funded community health center). The majority of patients are rural, young, and poor, and represent three distinct racial groups—Native American, black, and white.

In addition to the enhanced perinatal program, a State-funded perinatal substance abuse prevention project and a residential coordination program are already in place and functioning. The demonstration project is providing intensive outpatient substance abuse treatment services to women and their infants. A 3-part treatment program using the 12-step program model currently is being used. The program for infants is a combination of other child-bonding programs and child care. Additionally, patient support groups are available onsite.

EVALUATION: The demonstration evaluation design provides for process and outcome evaluation. The outcome evaluation examines the changes in drug and alcohol consumption among perinatal patients at Robeson Health Care Corporation, the effects of fetal exposure to alcohol and drugs in babies born to the corporation's patients, and the changes in the levels and amount of coordination of service providers who come into contact with the target population.

Born Free: A Perinatal Substance Abuse Program

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CSAP/MCHB
SP-01108
02/01/90–01/31/95
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PROBLEM: The recent surge in the incidence of cocaine abuse in this county has affected the pregnant population. A recent 1-month urine screen of all infants born in Dayton hospitals ran approximately 3 percent positive for cocaine. Dr. Ira Chasnoff, pioneer in perinatal substance abuse, has stated that positive cocaine screens in newborns represented only one-quarter to one-third of the patients using cocaine in pregnancy.

Prenatal cocaine abuse is associated with an increased incidence of spontaneous abortion, premature labor and delivery, and premature separation of the placenta. As many as 60 percent of pregnant substance-abusing women receive no prenatal care. This patient population suffers from a lack of chemical dependency programs geared toward women, especially those who are pregnant.

GOALS AND OBJECTIVES: The four goals of this program are to:

1. Identify pregnant cocaine-abusing women and enroll them in the program;
2. Decrease the amount and frequency of substance abuse (primarily cocaine) during the first year postpartum;
3. Reduce maternal mortality and morbidity of pregnant substance-abusing women; and
4. Reduce perinatal morbidity and mortality in the first year of life for infants born to substance-abusing women and increase maternal knowledge and mothering skills for infants.

The project established the following objectives:

1. Enroll 50 pregnant cocaine-abusing women in the program by the end of the first year;
2. Decrease the amount of substance used for 70 percent of the program participants and have 10 percent become abstinent by the end of the first year;
3. Have 50 percent of these patients free of complications usually attributed to substance abuse, such as cardiovascular problems, infection, and sexually transmitted disease, by the end of the first program year;
4. Have 70 percent of the program participants gain 15–27 pounds during pregnancy by the end of the first program year;
5. Reduce preterm labor (under 37 weeks) among patients in the program so that it is 10 percent less than the national rate of incidence among this population;
6. Reduce abruptio placentae for patients in the program so that it is 10 percent less than that reported in national statistics for the population by the end of the second year;
7. Increase infant birthweight so that it is an average of 10 percentile points higher for gestational age among program participants than in a comparison group of cocaine users by the end of the first program year; and
8. By the end of the first program year, educate mothers in the program in the expected effects of drug use on their infants, so that they recognize three of these effects and know one appropriate intervention for each.

METHODOLOGY: This will be a comprehensive, multisite program of high-risk obstetric care, structured education and group therapy, social service attention, and implemented individualized plans of treatment/care for mothers and infants extending for 1 year. Multiple strategies will be used to identify and enroll the patients into the program, with strong emphasis on varied ways to educate and involve the community at all levels.

To reach our goals, we will:

1. Develop appropriate educational materials for professionals;
2. Utilize sites in the neighborhoods where clients live;
3. Assign each client to a case manager who will monitor service delivery;
4. Develop an incentive "credit" program for clients;
5. Provide a range of concentrated high-risk obstetric care;
6. Provide outpatient substance abuse treatment two to three times weekly with child care and transportation services available;
7. Provide ongoing postpartum care for the first year after delivery; and
8. Encourage support groups (i.e., family and friends) to participate in specific facets of the program.

EVALUATION: The evaluation plan encompasses monthly audits of program components/activities and of personnel and summative data on all active patients' use of the program, and evaluation audits at key points, including entry, pregnancy conclusion, and exit.

These data will be analyzed for comparison to outcome objectives, and gaps in the data base will be identified. As data accumulate, tests of significance will be used to assess progress within the program and to compare program data annually with that of available appropriate comparison groups.

EXPERIENCE TO DATE: Within the first 7 months, the program was been established, the staff hired, the program evaluative tools developed, and 39 women admitted to the program. Ten babies were born into the program; nine were without the sequelae of drug use, one was premature, and two tested positive for cocaine at birth.

Healthy Connections for Families
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Pediatric Clinic
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CSAP/MCHB
SP-03881
08/01/92–05/31/97
Project Director(s):
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Connie Cameron, R.N., B.S.N.

PROBLEM: St. Vincent Medical Center has been dealing with substance use among pregnant and postpartum women in a coordinated and comprehensive manner since an internal task force was formed in 1988. Babies were being identified in the Pediatric Clinic and Teen Family Enrichment Program with symptoms recognized as possible results of cocaine exposure in utero. A St. Vincent Medical Center multidisciplinary task force was formed, enlisting the cooperation of obstetrics, pediatrics, chemical dependency programs, social services, and laboratory services. Knowledge and information was shared and networking began, both internally and throughout the community.

In order to analyze the problem of substance use and intrauterine exposure to drugs in the Pediatric Clinic population, a retrospective study of the 486 newborns admitted to the clinic between July 1, 1989, and June 30, 1990, was completed. Findings were based on information obtained from a review of the infants' medical charts, including birth history and toxicology screening.

Of the 486 newborns, 23 percent were exposed to substances in utero. Twenty-seven percent were identified by toxicology screen only and 31 percent by history only. Forty-two percent had a positive toxicology screen in addition to a history of substance use. Cocaine was the most frequently identified drug (31 percent of the mothers used cocaine exclusively and another 24 percent used it in conjunction with marijuana or alcohol). The second most common substance was marijuana (25 percent). Twenty-seven of the women had documentation of polydrug use. Twenty-seven percent of the substance-using mothers sought obstetric care late in their pregnancies, and 16 percent had no prenatal care.

Nearly three percent (2.7 percent) of the mothers had abruptio placentae; 12.4 percent of the infants were premature, and 9.7 percent of the infants were small for gestational age. Less than 1 percent (0.8 percent) were diagnosed with fetal alcohol syndrome/effects. Five percent had cardiac problems, 3 percent had urinary malformations, and 3 percent of the premature infants and 6 percent of the full-term infants had apneic episodes.

GOALS AND OBJECTIVES: The project has identified the following goals:

Goal 1: Promote the involvement and coordinated participation of multiple organizations in the delivery of integrated, comprehensive services for alcohol and other drug-using postpartum women and their infants.

Objectives:

a. Substance-using postpartum women and their children will access and/or receive integrated, comprehensive services from a consortium of 12 community agencies by the end of the first project year; and

b. Substance-exposed children will access appropriate services through collaboration and coordination with the Lucas County Early Childhood Resource Network.

Goal 2: Increase the availability and accessibility of prevention, early intervention, and treatment services for substance-using postpartum women and their children.

Objective: A minimum of 40 individuals from the minority community will participate in 5 focus group sessions to provide grassroots perceptions of the ideal substance use program/treatment for this population.

Goal 3: Decrease the incidence and prevalence of drug and alcohol use among postpartum women.

Objectives:

a. Seventy-two substance-using postpartum women will participate in Healthy Connections for Families (HCFF) substance use programs; and

b. Twenty women who participated in the program for 1 year will exhibit a significant decrease in substance use.

Goal 4: Reduce the severity of impairment among children born to substance-using women.

Objectives:

a. Each year, 120 substance-exposed children will be identified in the St. Vincent Medical Center Pediatric Clinic;

b. Each year, 80 substance-exposed children will participate in project activities;

c. Eighty percent of the participating children will achieve a physical growth pattern consistent with their neurological status; and

d. Eighty percent of the children enrolled for 1 year will demonstrate developmental progression consistent with their neurological status.

METHODOLOGY: Healthy Connections for Families, a project of St. Vincent Medical Center in Toledo, Ohio, is designed to respond with a coordinated and comprehensive effort to the problems of substance-using women and the impact of substance exposure on their children from birth to 3 years of age. To accomplish this, 12 community agencies will be involved in a consortium to develop a community plan of action to coordinate service for the target population and to monitor and contribute to comprehensive, integrated, and individualized care plans. Individuals from the minority community will participate in focus groups to provide grassroots perceptions of the ideal substance use programming. This information will be used to improve project strategies in meeting the needs of minority participants and will be shared with service providers in the community through the consortium and the Lucas County Early Childhood Resource Network.

The needs of substance-using postpartum women and their children will be met by providing substance use treatment through direct service and referral; comprehensive health care; education related to substance use, parenting, and goal setting; and support to meet varied psychosocial needs of the family. Specifically, 72 substance-using women from a central city population will participate in HCFF programs in each project year. Of 120 substance-exposed children identified each year in the Pediatric Clinic, 80 will participate in the project.

As a result of the project services, the participating women will decrease substance use, and their children will have the benefit of positive parenting from their mothers and will achieve their potential physically, developmentally, socially, and cognitively.

EVALUATION: The evaluation will follow project participants through all stages of service delivery. Both qualitative and quantitative data will be collected using norm-referenced tools, such as the Client Satisfaction Questionnaire, the Beck Depression Inventory, and the Index of Self-Esteem. Administering these assessments before and after project participation will indicate the mothers' progress in relation to and as a measure of engagement in services and will help to determine quality of participation. To determine substance use among project participants, self-report, observation of drug-related behaviors, and results of toxicology screens will be used.

Children's progress will be monitored from the individualized family service plans developed as a result of the neurological examination and Transdisciplinary Play Based Assessment. Children will be evaluated on growth and development. All data will be tabulated using parametric and nonparametric statistics when necessary.

Home Visitor Program for Chemically Dependent Pregnant and Postpartum Women and Their Children

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CSAP/MCHB
SP-01919
09/01/91–08/31/94
Project Director(s):
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PROBLEM: As the prevalence of chemical use among women has grown, so has the number of alcohol and other drug abuse (AODA) treatment facilities in Cleveland which admit substance-abusing women. Women still face many personal and environmental/social barriers to AODA treatment services, however. It is not unusual for AODA treatment facilities to restrict admissions for pregnant women to those in their first or second trimesters of pregnancy. At some facilities, a positive pregnancy test for a woman seeking detoxification services may be a greater barrier than being uninsured (Leff 1990). Reasons for restricting admission to treatment for pregnant women include the higher risk of premature labor and delivery among substance-abusing women, and lack of adequate medical support at many AODA treatment programs to address obstetric problems when they occur. After their babies are born, women often face the barrier of inadequate or nonexistent child care. Even if AODA treatment services were readily available, pregnant and postpartum women in need of treatment would not necessarily be identified or enter treatment without some special efforts to overcome individual social, economic, or psychological barriers. Barriers are especially great for low-income women. Reviews of interventions to improve prenatal care among low-income and minority women have shown that cultural issues, such as values and attitudes toward medical care, can also create barriers. It is reasonable to assume that these same issues hamper the abilities of women to gain access to and complete AODA treatment programs.

GOALS AND OBJECTIVES: The project goals are to:

1. Decrease the barriers to AODA treatment services for pregnant and postpartum women;
2. Decrease the incidence and prevalence of alcohol and other drug use among women of childbearing age; and
3. Increase the health and social well-being of substance-using women and their children.

The project objectives are to:

1. Increase the number of pregnant and postpartum women who enter AODA treatment services;
2. Increase the number of pregnant and postpartum women who complete AODA treatment services;
3. Improve the compliance rates of well-child care and special services for children exposed to drugs in utero; and
4. Increase the social supports available to pregnant and postpartum women who use alcohol and other drugs.

METHODOLOGY: This project has developed a home visitor program which is based in University/ MacDonald Hospital for Women, and has also established strong service and evaluation linkages with Rainbow Babies and Children's Hospital. The program has developed service agreements with AODA treatment programs and with other health and social services important to women and children. The project uses a service management strategy to achieve the goals and objectives. Home visitor programs have an advantage in that trained individuals (home visitors) can maintain contact with mothers and children in the home environment and not depend upon a medical visit or scheduled appointment to develop a relationship. Home visitors provide the link between maternal health services, infant and child care services, and AODA

treatment services. By developing a supportive relationship with the clients, the home visitor will be able to continue to address AODA issues with the mothers and reduce barriers to needed health and social services. Each home visitor will carry a maximum caseload of 35 clients at a time. The expected target group is 150–200 women, a sample size consistent with other home support programs that are intensive in nature.

EVALUATION: The evaluation component involves both process and outcome information. To answer process questions, the evaluation has developed and implemented a computerized service tracking system which tallies daily, monthly, and annual service contacts for each woman and child enrolled in the project. To answer outcome questions, the evaluation uses a longitudinal design to collect data on all enrolled women. The evaluation uses standard instruments with tested reliabilities and validities to assess client outcomes and to evaluate the extent to which women and children benefit from project services. Data collection occurs at intake and at 6-month intervals as part of the ongoing monitoring function.

EXPERIENCE TO DATE: The program has developed a training series for paraprofessional home visitors working with women who use alcohol and other drugs. The program has also collected process and outcome data on a pilot project of 180 women and their children, using a similar service model based in the women's hospital. Project professional staff have provided several local presentations and national presentations to date.

Selected publications from this project include articles on childhood medical and behavioral consequences of maternal cocaine use; a hospital-based comprehensive service model addressing perinatal addiction; and issues in the treatment of chemically dependent women.

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CSAP/MCHB
SP-02967
09/01/92-05/31/97
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PROBLEM: Over the past few years, there has been a dramatic increase in the number of pregnant women with concurrent mental illness who use alcohol and other drugs; consequently, there has been an alarming rise in the number of substance-exposed babies born each year in Cleveland, Ohio. Babies exposed to alcohol/drugs before birth start life with serious health problems. Due to these health problems and subsequent difficulty in bonding, these babies will face problems during childhood. These children must be considered at high risk for developmental and learning disabilities. In addition, as hospital statistics indicate, substance-using women are more likely to be involved in child abuse and neglect. Therefore, it is essential to provide parents with educational support services.

GOALS AND OBJECTIVES: Project services are provided in cooperation with Maternity and Infant Health Care (M&I), a parent care program of the Department of Obstetrics and Gynecology of the MetroHealth Medical System in Cleveland, Ohio; the Healthy Family/Healthy Start (HF/HS) Program; and the Cleveland Neighborhood Medical Services (CNMS). The project has established the following goals and related objectives:

Goal 1: The project will promote the involvement and coordinated participation of multiple organizations in the delivery of integrated, comprehensive services for pregnant and postpartum women using alcohol and other drugs, and for their infants.

Objectives:

a. The project will identify at least one substance abuse/mental illness liaison in each of the M&I and CNMS clinics.

b. The project will establish at least five memorandums of agreement with various substance abuse/mental illness treatment programs.

c. Within 48 hours of receiving a referral, the specialized assessment team will complete an assessment and develop a plan.

Goal 2: Increase availability and accessibility of prevention, early intervention, and treatment services.

Objectives:

a. Healthy Family/Healthy Start outreach workers will be assigned to monitor 350 assessed substance-abusing/mentally ill clients.

b. Parenting aides and a nurse specialist will provide intensive home intervention to 150 enrolled substance-abusing/mentally ill clients.

Goal 3: Decrease the incidence and prevalence of drug and alcohol use among pregnant and postpartum women.

Objectives:

a. Ninety percent of the patients receiving prenatal care from M&I and CNMS clinics will receive education about the dangers of smoking, alcohol, and other substance use during pregnancy.

b. Ninety percent of the enrolled Healthy Family/Healthy Start pregnant clients will receive education on the dangers of substance use during pregnancy.

c. Within 30 days of assessment, 250 substance-abusing/mentally ill pregnant women will be referred to treatment programs.

d. Through outreach, 250 substance-abusing/mentally ill pregnant women will be monitored weekly in order to track compliance.

Goal 4: Improve birth outcomes and reduce infant mortality among women who use alcohol and other drugs during pregnancy, and decrease the incidence of infants affected by maternal substance use.

Objective: After completing the training program, M&I and CNMS prenatal multidisciplinary staff and Healthy Family/Healthy Start outreach staff will refer 40 identified substance-using/mentally ill pregnant women per month (March through May) to the specialized assessment team.

Goal 5: Reduce the severity of impairment among children born to substance-using women.

Objectives:

a. Ninety percent of enrolled clients will complete at least three parenting/child development modules developed to reduce severity of impairment among children born to substance-using women.

b. One hundred percent of enrolled clients will receive Nursing Child Assessment Satellite Training (NCAST) modified assessment of their infants at 6 weeks and at 4, 8, and 12 months of age.

c. One hundred percent of infants who are impaired will be referred to the child find service at the achievement center for children within 15 days.

d. One hundred percent of the referred clients will be monitored monthly by their parenting aide to track compliance with their individual family service plan.

METHODOLOGY: Miracles and Motion (MAM) is a parent-intensive program designed to provide pregnant substance-using women with a comprehensive package of medical, treatment, community, and parenting services.

To address most of the goals and objectives, activities will be conducted by a multidisciplinary team comprised of 19 "natural helpers" (such as parenting aides), a registered nurse/evaluator, social worker/evaluator, program manager, and chemical dependency counselor. The multidisciplinary team will provide intensive perinatal care, coordinate comprehensive pediatric care for the drug-exposed infant from birth through the first year of life, and support mothers with mental illness and chemical dependency in their decision to enter and remain in treatment. Services will be provided in cooperation with Maternity and Infant Health Care of the Department of Obstetrics and Gynecology of the MetroHealth Medical System in Cleveland, Ohio; the Healthy Family/Healthy Start Program; and the Cleveland Neighborhood Medical Services.

All parenting aides will participate in an extensive training program on effective parenting techniques, drug use, patterns, mental health and substance abuse signs and symptoms, associated risks, effects on the fetus, and discipline-specific information in medicine, nursing, social work, and nutrition.

A unique aspect of the project is the use of parenting aides to provide advocacy and parenting guidance. These aides will be indigenous to the community, and, as a consequence, cultural sensitivity and competence will be a positive factor in retaining clients.

The parenting aide will teach five modules on infant care. After delivery, there will be home visits (initially on a daily basis, then decreasing in frequency as needed) to reinforce the teaching, make environmental assessments, and facilitate referrals.

The following activities are designed to meet goal 1 and related objectives:

1. Inservice trainings will be provided to each of the prenatal teams on accessing care for pregnant substance-using/mentally ill women; and
2. A liaison in each clinic site will be identified and trained in the process of referring clients to the specialized assessment unit.

The following activities are designed to meet goal 2 and related objectives:

1. Programs and methods to facilitate access into treatment programs will be identified.
2. Memorandums of agreement will be developed with area treatment programs.
3. Collaborative relationships and linkage systems will be monitored to assure coordination and placement of clients in treatment services.
4. A Healthy Family/Healthy Start outreach worker will be assigned to each assessed client.
5. Compliance with treatment, medical care, and referrals will be encouraged through preventive education and supportive services.
6. Compliance will be tracked with substance abuse/mental illness treatment, prenatal health care services, and social service referrals.
7. Enrolled home intervention clients will be assigned to parenting aides.
8. Parenting aides will teach and reinforce seven training modules (through daily visits for the first 6 weeks, and at least weekly thereafter) on daily living skills, alternatives to substance use, self-esteem and personal improvement, infant comforting techniques, infant care and safety, and childhood development.
9. Parenting aides will facilitate the first well-child visit by accompanying the parent to the appointment.
10. Parenting aides will monitor compliance with substance treatment and preventive health care through the infant's first year.
11. Parenting aides will notify the specialized assessment team of deviations in treatment and health care plan.
12. A member of the specialized assessment team will make a home visit to revise a plan of care, setting mutual goals with the client.
13. A registered nurse will complete modified NCAST and developmental assessments on each infant at 1, 4, 8, and 12 months of age.
14. The registered nurse will refer infants with developmental delays to the child find service of the achievement center for children to develop an individual family service plan.

The following activities are designed to meet goal 3 and related objectives:

1. A specialized assessment team will be established as a comprehensive intake unit, composed of the project manager, chemical dependency counselor (CDC) specialist, social worker, outreach coordinators, and specialized outreach workers.
2. The specialized assessment team will complete an assessment using standardized instruments and clinical observations on each referred pregnant or postpartum woman.
3. Based upon the clinical observations of the assessment team, the project manager or CDC will refer clients to substance abuse/mental illness treatment programs.
4. The project manager or CDC will develop a treatment service plan to provide feedback to the prenatal clinic staff.
5. The project manager will monitor the timeliness of assessment plan development, as well as the timeliness and accessibility of treatment services and placement for pregnant and postpartum women.
6. Prenatal clients will receive education on the dangers of smoking, alcohol, and other substance use during pregnancy.
7. Patients who smoke will be referred to smoking cessation programs.
8. Women who use substances will be referred to the specialized assessment team.
9. Women will be monitored through a multidisciplinary assessment process and toxicology screens when indicated at least once each trimester after beginning prenatal care, in order to identify substance use.
10. Healthy Family/Healthy Start clients will receive education by outreach workers on the dangers of smoking, alcohol, and other substance use during pregnancy.
11. Women will be monitored by outreach workers through history and observation to identify substance use.

12. The specialized assessment team will refer and connect substance-abusing/mentally ill pregnant women with treatment programs.
13. The project will assign an outreach worker to substance-abusing/mentally ill pregnant and postpartum women.
14. An outreach worker will contact clients weekly and document substance use patterns, treatment program participation, and health care compliance.

The following activities are designed to meet goal 4 and related objectives:

1. Training needs will be identified by discipline (medical/nursing, social work, dietitian, support staff, outreach, and specialized outreach).
2. The project will develop training modules and provide staff training on signs and symptoms and patterns of substance abuse/mental illness; techniques for identifying substance use/mental illness, and for identifying the system that deals with affected women and family/support; community treatment options; the process of linking treatment to the specialized assessment team; the signs, symptoms, and effects of maternal substance use/mental illness in infants; and interference with developmental milestones.
3. Social workers will be educated on substance/mental illness history and interviewing skills and techniques to ensure proper identification of abusing/mentally ill women.
4. Dietitians will be educated on the symptoms of poor dietary intake that might be related to substance abuse, and the hazards of drug use while breastfeeding.
5. Medical and nursing staff will be educated on classic obstetric indicators of substance use; interviewing techniques that specify drug use, amount, and frequency; and techniques for overcoming patient defense mechanisms and improving communication skills.
6. Outreach staff will be educated on interviewing skills and techniques, developmental deviations potentially indicative of substance exposure in utero, and the effects of a family member's substance use on the home environment.
7. Women who are using substances will be identified through a substance use/mental illness screening tool.
8. Identified women will be referred to a specialized assessment unit.
9. Pregnant women who are not receiving prenatal care will be linked with comprehensive prenatal services.

EVALUATION: Control groups will be used to assess the adequacy of the program. These controls will be drawn anonymously from among patients in an outpatient drug treatment program at the same institution.

It is our hypothesis that, with early intervention and handling, the infant will have better development and increased utilization of well-child care, while the mother will have increased parental satisfaction in childrearing and decreased substance use both before and after delivery. A control group and an intervention group will be monitored. Specific indicators to be monitored for the newborn include: Height, weight, and head circumference at birth and at 1 year; growth and development assessments; and compliance with immunization schedules and well-child care visits. Indicators for the parenting women will be compared relative to progress in treatment for substance abuse and metal illness, patient compliance, retention, and overall impact on improved parenting skills as a result.

The evaluation of the effectiveness of the parenting aide intervention will be ongoing and systematically conducted by measurement of timeframes and objectives. Level of satisfaction with services will be determined for both parents and parenting aides.

EXPERIENCE TO DATE: A program director has been hired, and a 9-week training curriculum has been developed in conjunction with Joint Training Partnership Act (JTPA) and the Healthy Family/Healthy Start Training staff. The program director has formed a subcommittee to further develop a training curriculum for M&I staff and to implement and schedule ongoing training for parenting aides.

The program director has contacted at least 15 community agencies to present information about the project. To date, the March of Dimes and Cleveland Neighborhood Health Services, Inc., have entered into an agreement.

The project is currently recruiting for indigenous parent aides.

Alcohol and Drug Abuse in Pregnancy Prevention and Training

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CSAP/MCHB
SP-01704
02/01/90–01/31/95
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PROBLEM: The Alcohol and Drug Abuse in Pregnancy Prevention and Training (ADAPPT) Project is a demonstration project financed by the Center for Substance Abuse Prevention and administered by the Oklahoma State Department of Health, Maternal and Child Health Service, Social Work Section. Through the development of a multilevel prevention and service coordination program, the project seeks to improve and expand services to substance-abusing women of childbearing age throughout the state.

GOALS AND OBJECTIVES: The project has three major goals:

1. Increase the availability and accessibility of prevention, early intervention, and treatment services for low-income women of childbearing age;
2. Promote the involvement and coordinated participation of multiple organizations in the delivery of comprehensive services for substance-abusing pregnant and postpartum women and their infants; and
3. Improve the birth outcomes of women who used alcohol and other drugs during pregnancy and decrease the incidence of infants affected by maternal substance use.

METHODOLOGY: To achieve these goals, five categories of project activities are being implemented:

1. The first area of activity is community organization and networking. Four sites in Oklahoma have been selected as target communities for the ADAPPT Project: Lawton, Oklahoma City, Tahlequah, and Tulsa. Each of these sites has an ADAPPT staff person who serves as site coordinator. The site coordinators are responsible for the development of a community needs assessment and a task force to identify gaps in services and barriers to care in their target communities. They will subsequently work to appropriately augment, enhance, or modify services to better meet the needs of women of childbearing age.
2. Within the family planning and maternity programs in each of the target communities, techniques are being piloted to better identify clients with a substance use problem. Some of the techniques include short questionnaires, client-administered inventories, enhanced interviewing techniques, and observation skills for health professionals. The use of each of these techniques will be evaluated for its effectiveness as well as its impact on the client, the care providers, and the care system or community.
3. Case management services to family planning or maternity clients who have a substance abuse problem are being provided in the four target communities. Case management services are aimed at identifying the client needs (assessment), developing a plan of care, identifying barriers to full utilization or actualization of the care plan, and providing assistance to clients in overcoming the barriers. Grant monies have been earmarked for each community to use in providing services such as transportation and child care. Case management services will continue for approximately 1 year after inpatient drug treatment for delivery of a drug-exposed infant.
4. Professional education activities are instrumental in meeting project goals. Educational workshops, inservice trainings, and meetings are being held for professionals across the State and in a variety of settings.

5. The evaluation plan is an integral and ongoing component of the project. Because this is a demonstration project, it is critical that data and information be collected concerning the effectiveness of each activity in meeting project goals. It is also critical that lessons learned be shared locally, regionally, and nationally in order to contribute to our knowledge base of effective care and treatment for the identified population.

EVALUATION: The evaluation component of the ADAPPT project is multifaceted. Initially, evaluators will conduct a statewide survey to obtain baseline patient information. Case management recordkeeping and evaluation forms will be developed, and services rendered will be reviewed every 6 months to gather information concerning barriers to care, inadequate care, and lack of service availability. A patient tracking system will be established to determine treatment outcomes for ADAPPT clients and for a comparison group at discharge from treatment.

A community needs assessment will be conducted and, depending on the results, multiple agencies will be asked to serve on local and State advisory boards to ameliorate the identified gaps. Training needs for clinic staff will also be articulated and staff development will be planned. An evaluation tool administered before and after training will measure the effectiveness of the training offered. Finally, baseline data will be gathered on the status of drug abuse during pregnancy in the four ADAPPT project sites. Coordination among key agencies will assure useful data for policy development and planning purposes.

EXPERIENCE TO DATE: Primarily, regional site coordinators have organized community task forces which have focused on completing community needs assessments and developing speakers bureaus to train and educate professionals about substance use in pregnancy. Committees have been formed to address identified barriers and gaps in services. Site coordinators have begun identifying substance-abusing pregnant women in maternity and family planning clinics and offering them comprehensive case management services. Health department nursing and social work staff have received training in identification, management, and referral of the target population. Preconception counseling has been added to the family planning clinics in three of the four ADAPPT sites with an extensive followup component.

The Governor's Appointed Task Force has completed its report to study harmful substance abuse/use in pregnancy, with recommendations for approximately 6 years to be implemented statewide. The ADAPPT project has developed an extensive clearinghouse of information, including published journal articles, prevalence studies, other States' task force reports, and model treatment programs and intervention techniques. This clearinghouse is being made available to the taskforce and other professionals.

The Oklahoma Fetal Alcohol Syndrome Prevention Center, funded by the Centers for Disease Control and Prevention, was established in December 1992 to highlight a new arena of prevention for the ADAPPT project for the next 5 years.

Alcohol and Drug Abuse Prenatal Treatment Program

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CSAP/MCHB
SP-01552
09/30/89-08/31/93
Project Director(s):
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PROBLEM: The Alcohol and Drug Abuse Prenatal Treatment (ADAPT) Program of the Women's Transition Services in Multnomah County, Oregon, was developed to address the problem of substance-abusing pregnant women booked in the Multnomah County Jail.

In 1988, approximately 450 pregnant women were booked in the Multnomah County Jail. Of this number, approximately 80 percent had a history of recent drug use. These women were incarcerated for a variety of charges, and the majority of these women were released within 14 days. This population typically had a history of no prenatal care during the current pregnancy or in previous pregnancies. Most of these women were below the Federal poverty level, came from unstable living environments, and were unable to provide for themselves and their children. Most had histories of 10 or more years of drug abuse, as well as histories of abusive relationships in childhood. These women did not have intact support systems in their families or in the community.

Since 1987, the Multnomah County Health Division has conducted pregnancy tests in the jail on women of childbearing age and has provided prenatal care for women while they are incarcerated. A U.S. Public Health Service grant provided community health nurses to visit women in the jail and to refer them to services in the community for ongoing prenatal care. The follow-through by women in prenatal care once they were released from custody, however, was low.

GOALS AND OBJECTIVES: The goals and objectives of the ADAPT Program include: (1) Improved health status of infants born to female offenders, (2) involvement in alcohol and drug treatment services and prenatal care for this population of female offenders, and (3) reduction of substance abuse during pregnancy in this population.

METHODOLOGY: The methodology of the ADAPT Program is a community-based, outreach-oriented, multidisciplinary services model for pregnant and postpartum women and their children. Prenatal care and substance abuse treatment services occur in the Multnomah County Jail, once women are identified as being pregnant and having a history of substance abuse. Community health nurses and substance abuse counselors visit the jail weekly and begin planning for release immediately with women who are not going to be held in jail for the duration of their pregnancy. Planning for meeting participants' needs upon release from jail is provided by a cross-disciplinary team, including the community health nurses, medical staff from the jail, corrections counselor case managers, and the alcohol and drug treatment staff. Women identified as potential participants for the ADAPT Program are asked to sign a service agreement that includes their commitment to end substance abuse during pregnancy and outlines the role of the community health nurses, case managers, and substance abuse treatment providers.

Upon release from jail, the women participate in a variety of community-based substance abuse treatment programs. Women either enroll in 90- to 180-day residential treatment or participate in intensive group treatment. The corrections case manager and community health nurses provide health and social services assistance, including enrollment in financial assistance, health treatment programs, home visits, 12-step support programs, housing, and basic needs assistance. The corrections case managers provide assistance for women following through with conditions of their probation. Case managers and community health nurses involve family members and significant others in relapse prevention activities.

Women who have other children may be enrolled in community parenting classes. Group treatment is available for the effects of childhood sexual and/or physical abuse. All services are provided in community clinics and treatment settings readily accessible by public transportation. Women are provided bus tickets and child care in order to facilitate participation in treatment.

The program provides financial assistance for women moving into permanent low-cost housing, returning to work, or requiring other basic needs assistance.

EVALUATION: The evaluation of the ADAPT Program is based on the goal of decreased negative birth outcomes in infants born to this population of substance-abusing female offenders. The evaluation will examine birth outcomes, participation in treatment, participation in prenatal care, and substance abuse during pregnancy for the women participating in the program.

Alcohol and Drug Services for Pregnant and Parenting Teens

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CSAP/MCHB
SP-02758
03/01/91-02/28/96
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PROBLEM: There has been an alarming recent increase in the number of infants born to Oregon mothers who have used alcohol and drugs during their pregnancies. A study done by Bess Kaiser Hospital in Portland provided an estimate regarding the prevalence of maternal drug use during pregnancy in a typical cross-section of Oregon mothers who deliver live infants. Drugs considered in this study included cannabinoids, amphetamines, opiates, benzodiozepines, barbiturates, cocaine, and PCP. The results indicated a prevalence rate of 11.2 percent for use of any illegal drugs and a rate of 3.6 percent for narcotic drug use by women in the study sample. This rate is considered conservative, however, as participation in the study was voluntary. There were 41,330 births in Oregon in 1988. The prevalence rates found in the Bess Kaiser study suggest that more than 4,200 drug-affected Oregon infants will be born in 1989. Almost 1,500 of them will have been exposed to hard drugs.

Despite an increase over the past 4 years in alcohol and drug prevention, intervention, and treatment services for youth in Multnomah County (the largely urban county that surrounds and includes the city of Portland), there are no services that specifically target the needs of pregnant and parenting adolescents. School-based alcohol and drug programs do not reach adolescent mothers because they typically drop out of school prior to becoming pregnant and have difficulty returning to school, due in part to a lack of child care. Several community-based adolescent parent outreach, case management, and support programs do make referrals for adolescent parents who desire alcohol and drug treatment services. Adolescent parent programs staff, however, are not trained in alcohol and drug assessment, and there is no system in place to assure that referred youth actually participate in service.

GOALS AND OBJECTIVES: The four project goals are to:

1. Increase the availability and accessibility of prevention, early intervention, and treatment services for pregnant and postpartum women;
2. Decrease the incidence and prevalence of alcohol and drug use among pregnant and postpartum women;
3. Reduce the severity of impairment of children who were affected by their mothers' drug or alcohol use; and
4. Promote the involvement and coordinated participation of multiple organizations in the delivery of comprehensive services for substance-using pregnant and postpartum women.

There are 10 outcome objectives for the project:

1. During the first year of the project, all adolescent parent programs will adopt new policies and procedures that address the alcohol- and-drug-related problems of their clients;
2. Ninety-five percent of the adolescent parent program staff will improve knowledge of alcohol and drug issues;
3. Ninety percent of program staff will feel more comfortable with their ability to work successfully and comfortably with clients affected by alcohol- and drug-related problems;
4. Eighty-five percent of the clients who participate in the educational presentations will improve their knowledge of alcohol and drugs;

5. Educational curriculums and materials will be made available to all adolescent parent program staff;
6. Eighty-five percent of clients who participate in the awareness group will show an improvement in their knowledge and attitudes toward alcohol and drugs;
7. Fifty percent of the clients who are assessed and referred to alcohol and drug treatment services during the next 5 years will participate in those services;
8. Sixty percent of the treatment goals set by participants in the weekly experimental treatment group will be met;
9. There will be a 20 percent increase in the number of infants referred for medical evaluations because of suspected alcohol and drug use by the mother; and
10. Specific strategies will be developed to resolve coordination issues that arise during the course of the project.

METHODOLOGY: The Teen Parent Connections Project provides an array of alcohol and drug prevention, intervention, and treatment services for pregnant and parenting youth ages 15–18 in Multnomah County, Oregon. The project is a cooperative effort involving seven direct service programs and is coordinated and administered by the Tri-County Youth Services Consortium, a private nonprofit network of youth-servicing agencies in the Portland metropolitan area.

The project methodology provides for the creation of formal interagency linkages between Mainstream Youth Program, which provides adolescent alcohol and drug services, and community- and school-based programs and school-based programs whose primary target population is pregnant and parenting teenagers.

Direct services to clients will be provided by adolescent alcohol and drug specialists placed at participating adolescent parent program sites. These specialists also provide training and consultation on alcohol and drug issues for adolescent parent program staff.

Specific services provided by the project include alcohol and drug assessment and referral, educational presentations to existing adolescent parent support groups and skills-building classes, awareness groups for those clients most at risk for alcohol and drug abuse, identification of infants affected by their mothers' prenatal use of alcohol and drugs, and an experimental treatment group for adolescent parents with substance abuse problems.

The project design builds on the demonstrated strengths of the participating agencies to create a continuum of services that is more likely to be effective in addressing alcohol- and other drug-related problems of pregnant and parenting adolescents.

EVALUATION: The client tracking system (CTS) is used to gather demographic, referral, social history, service delivery, and termination information on clients served in several project components. The CTS is a client-centered data collection system. Forms are completed on each client separately. The system uses two forms, an intake form and a service delivery, referral, and termination form. The intake form is completed when a client first receives a "codable" service. Service delivery forms are compiled for each quarter during which a client receives services from a program.

Information will also be compiled from group and presentation logs and pretests/posttests to learn which combination of curriculum, materials, and approach yields the best results. Similarly, pretest/posttest data, workshop evaluation forms, and interviews with staff will be used to determine the most effective approach for training adolescent parent program staff in alcohol and drug issues.

Although not directly related to the process and outcome evaluation of the project, the consortium and participating agencies are gathering information on the effects of alcohol and drug use on the lives of the pregnant and parenting adolescents served by youth parent programs in Multnomah County.

EXPERIENCE TO DATE: During the first 21 months of the project, the following activities were completed: (1) A project coordinator and 4 alcohol and drug specialists were hired; (2) 12 interagency coordination team meetings were held with representatives from all 8 participating agencies in attendance;

(3) 275 educational presentations were completed; (4) 3 weekly awareness groups started meeting at 2 separate participating adolescent parent agencies; (5) 23 adolescent parent program staff trainings were conducted; (6) 92 intakes and referrals were completed; and (7) curriculums and materials were developed for the educational presentations, awareness groups, and experimental treatment group.

Intervention Project for High-Risk Pregnant Women
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CSAP/MCHB
SP-01173
02/01/90–01/31/95
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PROBLEM: Chemical dependency has significant adverse effects on both mother and infant. Drug-abusing women suffer health, legal, financial, and social problems, and infants born to these women often exhibit a variety of physical, intellectual, and behavioral impairments. In addition, low-income women tend to experience more stress and insecurity because of inadequate support and social resources.

Few resources exist to address the wide array of needs experienced by low-income pregnant drug abusers, and the resources that do exist are often inaccessible. Inaccessibility results when services are too expensive, geographically dispersed, culturally inappropriate, and difficult to reach by public transportation. Too few drug treatment programs are tailored to the needs of women, and those that are rarely address the specific needs of pregnant women.

GOALS AND OBJECTIVES: This project has two primary goals: (1) Increase the availability and accessibility of screening, early intervention, education, and treatment services for low-income and high-risk pregnant women; and (2) improve birth outcomes and decrease negative impact on infants affected by maternal substance use.

The project objectives are to:

1. Provide improved drug abuse screening of pregnant women receiving Special Supplemental Food Program for Women, Infants, and Children (WIC) services and prenatal health care;
2. Provide drug education and treatment services to all enrolled women;
3. Provide comprehensive case management and assist all enrolled women in accessing needed social and health services;
4. Provide community health nursing and outreach services;
5. Provide parenting skills education to all enrolled women and their interested partners;
6. Provide developmental assessment of infants through the first year and offer support, information, and referral to parents;
7. Secure detoxification and residential treatment services for enrollees when needed;
8. Enroll at least 60 women per year and maintain an ongoing caseload of 30 women; and
9. Provide case management to an additional 60 women per year.

METHODOLOGY: The Washington County Department of Health and Human Services has established the program, Project Cradle, at a satellite office where it is colocated with a prenatal health care provider. Project Cradle directly provides drug education and treatment services, case management, community health nursing services, and parenting skills education. Sharing space with a private nonprofit prenatal health care provider allows easy referral for enrollees not yet connected with health care.

The Department of Health and Human Services provides some health and treatment services directly but also plays an umbrella role in planning and contracting for services provided at other agencies. An important

aspect of this project is linkage with other programs in the county that offer services supportive of Project Cradle's efforts.

Training was provided to two prenatal clinics serving low-income women and to the county's WIC program to improve detection and referral of substance abusers. Project Cradle will provide bilingual (Spanish/English) case management, but has an arrangement with a bicultural treatment program to do chemical dependency treatment for Hispanic clients. Other local programs have agreed to provide detoxification and residential services when necessary.

To reach our program goals we will:

1. Improve the ability of referral sources to identify pregnant women needing chemical dependency services;
2. Conduct frequent outreach to other programs to facilitate referral;
3. Facilitate early linkage to prenatal health care for program participants;
4. Provide group, individual, and family chemical dependency counseling;
5. Provide comprehensive chemical dependency education:
6. Provide group and individual parenting skills education;
7. Provide case management to assist participants in finding other support services as needed; and
8. Provide community health nursing services including home visits and child development assessments.

EVALUATION: Evaluation focuses on the effects of program services on two basic outcomes: (1) Reduced substance abuse and (2) birth outcomes. The design includes extensive data collection regarding services provided to individuals.

Low-income pregnant women receiving WIC and prenatal health services are divided into no-risk, low-/moderate-risk, and high-risk categories with the use of a screening tool. Each woman falls into one of the following comparison groups, with group 4 serving as the primary experimental group:

Group 1: No risk women;

Group 2: Low- or moderate-risk women who use community alcohol and drug resources (not Project Cradle);

Group 3: Low- or moderate-risk women who do not use community alcohol and drug resources;

Group 4: High-risk women who use specialized counseling and treatment services (Project Cradle); and

Group 5: High-risk women who do not use specialized counseling and treatment services, but who do receive case management services.

EXPERIENCE TO DATE: Project outcomes to date include:

1. Developing a chemical dependency screening tool for use by WIC staff;
2. Training prenatal health care providers to better identify substance abusers;
3. Developing/selecting health screening and data base forms for use by community health nurses;
4. Selecting an evaluation tool for assessing progress in chemical dependency treatment;
5. Selecting evaluation tools for assessing development of infants born to project participants;
6. Developing and implementing a marketing plan;
7. Developing a program brochure;
8. Forming an advisory task force comprised of representatives from key treatment, medical, and social service agencies;
9. Screening over 1,300 women for level of risk through WIC and prenatal providers; and
10. Enrolling 118 women in Project Cradle treatment and case management services to date.

Model Project for Drug-Free Mothers and Infants
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CSAP/MCHB
SP-02732
03/01/91–04/30/96
Project Director(s):
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PROBLEM: The incidence of drug-exposed babies in the metropolitan area of Oregon increased fivefold from 1985 to 1989. Adolescent pregnancies also have continued to rise in the Oregon area. Clackamas County experienced an adolescent pregnancy rate of 8 percent (or 295 births) to mothers 19 years of age and younger in 1988.

The removal of a drug-affected infant from the mother's care at birth has been used as a protective intervention for the child. This strategy, however, has significant negative consequences for the mother's recovery from drug addiction, as well as for the long-term development of the child.

A lack of intensive prevention and intervention services to fully support the family unit of substance-using women during the prenatal and postpartum periods resulted in 29 referrals in 1989 to Children's Services Division and the Public Health Department for intervention and possible placement of drug-affected infants and children. No coordinated outreach/prevention program for women in the prenatal period was available to attempt to prevent this problem, and no comprehensive program existed to treat chemically dependent women and their children together while maintaining and enhancing maternal bonds and parenting skills.

GOALS AND OBJECTIVES: The goal of the Clackamas County Mental Health Division is to demonstrate through its Model Project for Drug-Free Mothers and Infants a comprehensive continuum of services that will reduce: (1) The use of drugs and alcohol by pregnant and postpartum women; (2) the number of drug- or alcohol-affected babies; (3) the severity of impairment of children born to substance-using women; and (4) the loss of custody of children due to maternal drug or alcohol use.

The plan of action includes major efforts organized around four objectives:

1. Objective 1 focuses on prevention and early intervention and is aimed at gaining and maintaining access to the target population. Prevention and outreach activities are community based and involve trusted professionals and other community members to whom the target population goes for assistance.
2. Objective 2 emphasizes outreach and case management aimed at early identification and coordination of comprehensive services to respond to complex needs. This project will forge a strong link between health and mental health professionals to encourage pregnant women to enter prenatal care earlier. Public and private health providers will use a self-assessment tool for alcohol and drug screening at the time of pregnancy testing and thereby facilitate early access to both prenatal care and alcohol and drug treatment. Case management will provide for ongoing assistance and referrals to other needed support services.
3. Objective 3 implements an intensive day treatment model to fill a gap in the continuum of care and to meet the needs of substance-abusing pregnant women in an effective and long-lasting manner. With the development of a drug-free women's community, staffed by health and mental health professionals, women will receive the support and treatment services they need to remain drug free, give birth to healthy babies, keep custody of their children, improve their parenting skills, and increase their ability to get a job.
4. Objective 4 is aimed at increasing coordination of the human service delivery system so that needs are met in a holistic and cost-effective manner. Private pregnancy testing sites, physicians, nurse

practitioners, social service agencies, job training agencies, schools, and other agencies will be involved in helping to attain the outcome goals of this project.

METHODOLOGY: Clackamas County Mental Health Division will develop an intensive day treatment program for families and children affected by substance abuse. From this site, early intervention and outreach will be provided to clients referred by public health and other community agencies. In addition, prevention activities will be enhanced and the treatment continuum will be augmented through the addition of community-based intensive treatment. Each referred family with neonates and preschoolers will be evaluated for inclusion in the intensive treatment project, assigned to a primary therapist and case manager, and provided services to retain them in recovery and maintain the family unit. These services will include health, mental health, and social services, as well as transportation.

EVALUATION: The purpose of this project is twofold: (1) To prevent perinatal substance abuse, and (2) to treat drug and alcohol abuse by mothers and pregnant women through a comprehensive treatment program that includes the mother, her family, and community resources. Descriptive statistics will be used to assess project efforts directed at the primary (prevention) and secondary (early intervention) levels of intervention. A one-group, pretest-posttest design will be used to evaluate the effectiveness of the treatment program (tertiary intervention). Pretreatment and posttreatment evaluations will include assessments of maternal characteristics, child developmental characteristics and behavior, and quality of the mother-child relationship. These characteristics were identified from the extant empirical and theoretical literature in the area of parenting/attachment, especially concerning the substance-abusing population. In addition, treatment quality measures (e.g., contact time, treatment modalities, length of treatment, goals obtained, and quality of involvement) will be obtained on a continuing basis for all subjects.

It is broadly hypothesized that pretreatment characteristics for pregnant women influence treatment quality and, together, these variables influence posttreatment characteristics and childbirth outcomes. These characteristics and outcomes subsequently transact to influence the quality of the mother-child relationship. For postpartum women, it is broadly hypothesized that maternal and child pretreatment characteristics influence treatment quality and, together, these variables impact posttreatment characteristics of mother and child. These posttreatment characteristics, likewise, are believed to transact to influence the quality of the mother-child relationship.

The process of implementing prevention efforts as well as the outcome of treatment efforts will be assessed using health and mental health referral and treatment records as well as the following measures for infants and children: (a) Birth outcome data, including toxicology; (b) Nursing Child Assessment Satellite Training (NCAST) teaching scale; (c) family functioning clinical rating scale (Olson); (d) developmental screening inventory; and (e) child behavior checklist (Achenbach). The following measures will be used for parents: (a) Addiction Severity Index (ASI); (b) self-esteem scale (Rosenberg); (c) coping style (Jalowiec); (d) social network (Brandt); and (e) parenting stress index (Abidin).

EXPERIENCE TO DATE: The project was fully staffed as of July 1991. From March 1991 through December 1992, 18 pregnant women and 44 postpartum women have been served along with 62 children in the intensive outpatient program. An additional 40 women have received case management as well as transportation to treatment and medical appointments.

Training and consultation with the public health prenatal and family planning clinics has resulted in increased screening for alcohol and drug use in pregnancy and referral for treatment.

In November 1991, the project received the leadership award from the Oregon Coalition for Healthy Mothers and Healthy Babies in recognition of the development of the comprehensive project and innovative day treatment approach to family recovery.

New Start: Drug-Free Beginnings for Moms and Babies

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CSAP/MCHB
SP-01633
02/01/90–01/31/95
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PROBLEM: The use of alcohol, nicotine, methamphetamine, and cocaine is an acute problem among pregnant women in Lane County, Oregon. Certified nurse-midwives from the Sacred Heart Prenatal Clinic, who provide maternity care for low-income women, have determined that 10–20 percent of their clients are at risk for using drugs and/or alcohol during pregnancy. Sacred Heart General Hospital reports that 10 percent of its hospital-delivered babies are drug exposed at birth. Maternal substance use places mothers and babies at risk for adverse physical, emotional, and environmental effects. Although this substance use pattern is present among women at all income levels, the low-income population is the most likely to experience barriers to access that preclude the receipt of adequate prenatal care, substance abuse treatment services, parenting education, and ongoing social support services. This population requires intense personalized intervention strategies to assure access to appropriate services and to provide motivation toward the development of positive lifestyle patterns.

GOALS AND OBJECTIVES: This project has four primary goals:

1. Promote the involvement and coordinated participation of multiple organizations in the delivery of comprehensive services for substance-using pregnant and postpartum women and their infants;
2. Increase the availability and accessibility of prevention, early intervention, and treatment services for substance-using pregnant and postpartum women and their infants;
3. Decrease the incidence and prevalence of drug and alcohol use among pregnant and postpartum women in Lane County; and
4. Improve the birth outcomes of women who used alcohol and other drugs during pregnancy, and decrease the incidence of infants affected by maternal substance use.

The project objectives are to:

1. Increase referrals to the New Start Program (NSP) early in each pregnancy;
2. Improve coordination among provider agencies and increase simultaneous use of prenatal care, substance abuse treatment, child protection services, and social services for NSP clients;
3. Increase provider knowledge regarding identification of substance-using clients, the service needs of these clients, and the use of appropriate intervention strategies for high-risk, low-income pregnant clients;
4. Increase knowledge among Lane County pregnant women about the effects of substance abuse during pregnancy;
5. Improve NSP client prenatal and postpartum adherence to individual treatment plans; and
6. Improve parenting skills for pregnant and postpartum NSP clients and thereby reduce the risk of child abuse among this group.

Implementation of these objectives will facilitate early identification of substance-using pregnant women, strengthen their emotional and social support systems, increase their access to substance abuse services, promote retention in prenatal care and substance abuse treatment programs, and ultimately improve birth outcomes in Lane County, Oregon.

METHODOLOGY: The NSP will organize meetings of the Lane County Perinatal Substance Abuse Task Force and coordinate with public/private providers of services for high-risk pregnant women in early identification and screening of low-income pregnant women. In conjunction with Lane County Public Health Services, an NSP social worker and public health nurse will provide co-case management services for clients. The co-case managers will assist clients by working with the Children's Services Division on plans and agreements to maintain child custody. NSP will provide education on substance-using clients for midwives, nurse practitioners, physicians, outreach volunteers, and social service providers. Language interpreters and culturally sensitive substance abuse services will be used to serve the minority population. Multiple mass media approaches will be designed to increase public awareness of the New Start Program. Client trust in the system will be improved by increasing office visit time for prenatal clinic clients. Education of clients about the effects of substance use during pregnancy will be provided through prenatal clinic and in-home educational programs. Random drug screens will help assure adherence to individual treatment plans. Parenting education classes will be provided for NSP clients, with transportation and child care available. Followup services, including in-home visits, will be provided during the postpartum period.

EVALUATION: An independent evaluation team from the University of Oregon conducts the ongoing program evaluation. The evaluation team monitors NSP activities and measures both the short- and long-term impact of the program and the effectiveness of education, treatment, and outreach efforts. The impact evaluation is designed to determine whether the methods and activities used by the program result in the desired immediate changes in the target population. The outcome evaluation will measure the effect of the program on the health of the target population. The outcome evaluation also measures the extent to which program involvement is associated with health outcomes and a substance-free lifestyle.

EXPERIENCE TO DATE: The Lane County Perinatal Substance Abuse Task Force (a subcommittee of the local Healthy Mothers, Healthy Babies coalition) meets regularly to identify access problems, gaps in service, duplicated services, conflicting approaches to problem solving, and methods of resolving these issues. The project currently serves a caseload of 37 NSP clients. Referrals to NSP continue to be received from the County Justice Department, social service agencies, and prenatal providers. Following the first full year of inservice education for local physicians, many physicians are using the NSP screening questionnaire and referring clients to NSP on a more consistent basis. With one NSP co-case manager located at the Sacred Heart Prenatal Clinic/NSP site and another located at the Lane County Public Health Service site, NSP clients are gaining access to prenatal care, substance abuse treatment, child protective services, in-home visits, and additional support services from community providers. The co-case management system is proving to be central to the success of the program. Volunteer mentors are trained to provide instrumental support services for some project participants. The parenting education component (supported by private foundation funds) has been revised to better meet the needs of NSP clients and now provides instruction in meal preparation. Public education is being provided through presentations and media events. A videotape on substance use during pregnancy and services provided by NSP has been completed and is being used as an educational tool.

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CSAP/MCHB
SP-01922
07/01/90–06/30/93
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PROBLEM: Substance use places both mother and infant at risk for adverse physical, mental, emotional, and environmental effects. Inadequate prenatal care, risk of long-term medical and developmental conditions, and poor parenting patterns are just a few of the potential problems experienced by these families. This population requires intensive intervention strategies for the purposes of support, motivation, compliance with treatment, and development of positive lifestyle patterns.

GOALS AND OBJECTIVES: This project has three primary goals:

1. Prevention efforts to decrease the number of drug-affected infants;
2. Intervention in the self-destructive lifestyle of substance-abusing pregnant and parenting women; and
3. Development of positive parenting skills and home environments in at-risk families.

Specific objectives for meeting these goals include:

1. Early identification of at-risk pregnant women;
2. Early identification of at-risk newborns;
3. Early assessment and identification of client (and family) physical, emotional, social, and environmental risk factors; and
4. Development and implementation of a care coordination plan specific to the needs of the individual client (and family) using a variety of resources and services available in the community.

METHODOLOGY: In the prenatal or postpartum period, women with confirmed histories of substance abuse, or women suspected of such involvement, are identified by a variety of providers, programs, and agencies and referred to the health department. The public health nurse responds to the referral within 1 week, makes contact with the client, and schedules a home visit. During the home visit, the woman, her infant, and her environment are assessed using validated screening tools. Based upon the outcome, a client-specific care coordination plan is developed and implemented for the woman and her infant (or family). Continued home and clinic visits, other provider referrals, and intense nurse case manager support are important components of each care coordination plan.

To reach our program goals and address client needs, we will:

1. Renew interagency working agreements annually;
2. Continue use of interagency referral forms as developed;
3. Continue use of data collection/tracking forms as developed;
4. Identify and enroll eligible service recipients;
5. Implement home and clinic visits, information and referral, monitoring, and support service care plan based on results of screening and evaluation using validated screening tools;

6. Continually monitor outcomes and measurable objectives; and
7. Initiate formal evaluation pieces for project review, revision, and systems information.

EVALUATION: Evaluation will include extensive data collection on services provided and outcomes. Comparisons will be made between the measurable objectives (outcomes) and data collected on the same parameters prior to implementation of the service model.

EXPERIENCE TO DATE: Interagency working agreements, referral forms, tracking forms, and special training were completed as projected during the first year of project development and implementation. Clients were identified and enrolled and provided case management according to individual care plans. Evaluation is ongoing to clarify the demographic picture of women and infants served, most frequent referral sources, services used, and outcomes.

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CSAP/MCHB
SP-01562
09/30/89–05/31/94
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PROBLEM: Issues which precipitate substance abuse are complex, especially for women. Services, therefore, need to be comprehensive and reflect a gender and cultural sensitivity that is family focused. Fragmentation of services creates substantial barriers to treatment and health care. These barriers are often magnified for minority women, thus leading to prolonged cycles of poverty, addiction, and poor health. Limited accessibility and inadequacy of available services promote further disenfranchisement of these women.

To address the spectrum of issues related to substance abuse in pregnant and postpartum women from both a medical and a social perspective demands multiagency coordination and the delicate balancing of an institutionalized health care delivery system with community-based programs. This multidisciplinary approach challenges traditional medical models to investigate alternative methods of treatment for substance-abusing women and their children that are family centered and holistic in their methodology.

GOALS AND OBJECTIVES: Project Network's primary goal is to increase the availability and accessibility of health care for substance-using pregnant and postpartum women and their infants from the north/northeast community of Portland. This includes intervention in substance abuse to positively impact the birth outcome of our clients. This project is designed to provide gender-specific and culturally specific services which support, educate, and case manage these women through their pregnancies and for 2 years postpartum.

The project objectives are to:

1. Provide a bridge and develop coalitions between the hospital and community in addressing the medical and social problem of perinatal substance abuse.
2. Develop a model of gender-specific and culturally specific alcohol, tobacco, and other drug treatment services, using traditional and nontraditional methods such as acupuncture.
3. Develop a multidisciplinary approach that blends social services, case management, and intensive alcohol, tobacco, and other drug treatment with the medical management of these women and their children.
4. Increase effective multiagency involvement and coordinate services within the community for the purpose of reunification of families disrupted through addiction.
5. Provide effective and culturally specific parenting education which empowers, educates, builds self-esteem, and breaks the powerful cycle of oppressive parenting styles.
6. Incorporate traditional therapeutic models of family-centered treatment in a creative and sensitive manner which will address family of origin issues that encompass the physical, emotional, and sexual abuse endured by many of these women.
7. Provide outreach, assessment, and referral for partners of clients. Facilitate couples group to explore roles and values of the family unit.
8. Provide developmental assessment, therapy, and followup services for infants who are exposed prenatally.

9. Develop a therapeutic milieu for infants and siblings who have been prenatally or environmentally exposed to parental substance abuse. This will be accomplished through a structured, developmentally appropriate day treatment model.
10. Provide 24-hour supervised living for women and their children in keeping with the project's goal of family stabilization and reunification.
11. Provide transitional housing for women who have completed phase I of treatment, and assist them in their reentry into the community.
12. Provide inpatient maternal medical withdrawal for all substances, including opiates.

METHODOLOGY: Project Network assessed the needs of its clients, and the barriers to treatment and case management became the core services in this program. To provide a holistic and family-centered treatment program, the family's needs required that the program focus be expanded to include transportation, child care, parenting education, life skills training, and a child development group.

Family-centered therapy which identifies and treats family of origin issues that infringe on current relationships and parenting is an integral component of this program. These women are products of oppressive parenting styles that are often reenacted with their own children unless individual and group therapy addresses the physical, emotional, and sexual abuse that these women experienced as children.

Long-term followup is essential to the health of these fragile families. This followup is part of a continuum of care which includes maternal medical withdrawal (detoxification), residential treatment, intensive outpatient treatment, and transitional housing.

In addition to addressing the needs of the parent, these children at risk have been identified as needing individual and family therapy to address the scope of their exposure to parental substance abuse. Through Title XIX mental health funds for children, the project has been able to expand services to include this population.

Through the project's various funding sources and its ties to the hospital's biomedical research department, there is an opportunity to obtain hard social scientific data on this population. A pilot study was implemented in August 1992 to research the use of acupuncture in relapse prevention, with an experimental design using real versus sham acupuncture points.

EVALUATION: In the fourth project year, Project Network has contracted with Northwest Regional Educational Laboratory to conduct the evaluation for the program. The evaluator will continue to explore the following questions:

1. To what extent have skills, attitudes and/or behaviors among clients been improved during participation in Project Network?
2. What correlation exists between improved client behavior and birth outcomes?
3. To what extent have children been affected by their mother's participation in the program?
4. What comparisons can be made between the birth outcomes of infants born to Project Network participants and the birth outcomes of infants born to women who abused substances throughout pregnancy?
5. What comparisons can be made between Project Network participants and similar women who did not participate in the project?
6. What comparisons can be made between the children of Project Network participants and children whose mothers did not participate in the project?

EXPERIENCE TO DATE: Project Network has served 73 women during some portion of their pregnancy; 46 have delivered, 3 are currently pregnant, and the remainder were either not pregnant at admission or left the program before delivery. This group consists of African Americans (66 percent), Caucasians (27 percent), Native Americans (4 percent), Hispanics (2 percent), and Asians (1 percent). The primary drug of choice is cocaine for 44 of the clients, alcohol for 14, heroine for 9, and marijuana for 6. All but two of the

46 infants had urine toxicology screens at birth; 12 were positive and 34 were negative. In addition to the clients and these infants, 124 siblings have been served.

Programmatically, Project Network has developed a licensed, intensive outpatient alcohol and drug treatment program which is both gender-specific and culturally specific. In keeping with the family-centered treatment model, the project has incorporated the partners of these women into the program design. Maternal medical withdrawal protocols have been developed and are being used successfully in the hospital. To date, 11 women have been served in this component.

A 24-hour supervised living facility was added to the project's services in August 1992 to address the need for a safe, drug-free family living experience. The project is proceeding in its efforts to develop a children's mental health component which will consist of (1) primary prevention, (2) building on the natural resiliency of children, and (3) school readiness. The acupuncture research is another component that has been implemented as a means of providing nontraditional methods of treatment to an array of services for substance-abusing women.

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CSAP/MCHB
SP-01675
02/01/90-01/31/95
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PROBLEM: Use of alcohol, cocaine, amphetamines, heroin, and/or methadone during pregnancy has been shown to have harmful effects for both mother and child. Children of substance-using women are subject to other risks such as poor nutrition, sexually transmitted diseases, abuse, neglect, and emotional sequelae. Pregnant women in Oregon face significant barriers to substance use treatment, including inadequate case management services and coordination of resources, and lack of drug-free housing, child care, and transportation. There are inadequate numbers of treatment programs which are family focused, culturally sensitive, and geared to the needs of women.

There is a lack of research concerning all aspects of treatment for substance-using pregnant women. It is hypothesized that comprehensive services provided through multiagency coordination and utilization of public health nurses as case managers may be an effective approach to breaking the cycle of substance use. This project serves to test this hypothesis. Furthermore, our project demonstrates that a community-based, intensive case management service that ensures comprehensive care through cooperative providers can be as effective as center-based, comprehensive programs.

GOALS AND OBJECTIVES:

Goal 1: Promote the involvement and coordinated participation of multiple organizations in the delivery of comprehensive services for substance-using pregnant and postpartum women and their infants.

Objectives:

a. Contract with local health departments to increase their involvement in providing services to the target population;

b. Increase State level interagency cooperation through formation of an advisory board; and

c. Improve community agency involvement in providing support and treatment services through agreements developed with both county projects.

Goal 2: Increase the availability and accessibility of prevention, early intervention, and treatment services for these populations.

Objectives:

a. Improve interagency interaction with care services through involvement and intervention by the START nurse;

b. Create an intake process to identify pregnant substance users within 26 weeks of gestation; and

c. Identify and decrease barriers to treatment services for clients.

Goal 3: Decrease the incidence and prevalence of drug and alcohol use among pregnant and postpartum women.

Objectives:

a. Provide intensive case management to the assigned treatment group;

b. Ensure that more women enrolled in the project remain drug and alcohol free (compared to those in the control group); and

c. Ensure that clients decrease the amount of substance use during pregnancy.

Goal 4: Improve the birth outcomes of women who used alcohol and other drugs during pregnancy and decrease the incidence of infants affected by maternal substance use/abuse.

Objectives:

a. Ensure that at least 95 percent of enrollees receive prenatal care;

b. Ensure that at least 80 percent of enrollees experience normal weight gain during pregnancy; and

c. Improve the low birthweight rate among infants born to project participants, compared to infants born to the control group.

Goal 5: Reduce the severity of impairment among children born to substance-using women.

Objectives:

a. Improve the growth and development of participants' children (compared to the control group of substance-affected infants) at 4 months, 1 year, 2 years, and 3 years of age; and

b. Improve parenting skills and decrease dysfunction in families affected by substance abuse.

METHODOLOGY: To address goal 1, we obtained verbal and written agreement from both county health departments to provide services to the target population. State representatives from Adult and Family Services, Children's Services Division, and Alcohol and Drug Abuse Programs comprise the advisory board which improves interagency cooperation and collaboration.

To meet our second goal, the nurses continue ongoing contact with those agencies providing services. Clients continue to be referred and randomly assigned to control or treatment groups. Nurses provide technical assistance and distribute pamphlets to health care providers to help them understand our program and the referral process. In addition, they assess each client for presence of barriers to accessing services and help clients address and resolve barriers. Our program has funding for transportation, child care, and drug treatment for a percentage of women. The nurses are using flow sheets to document the process of intervention.

To reach goal 3, the nurses as case managers use the nursing process to assess problems. They work with clients to form a plan of intervention and facilitate referrals and followup. They screen clients using the Addiction Severity Index (ASI) tool during the first week of visitation and just prior to delivery. Nurses refer clients to appropriate drug and alcohol treatment programs. We plan soon to be using urine screens at the first prenatal clinic visit and again at about 36 weeks' gestation.

To address goal 4, nurses refer clients to prenatal clinics and work with providers to assure appropriate care, support, and followup. They enroll their clients in the Special Supplemental Food Program for Women, Infants and Children (WIC) and monitor the mother's nutrition. Client prenatal visits and infant birthweights are determined by using birth certificate data. Nurses use flow sheets to document client compliance. They also attempt to establish a therapeutic relationship with their clients.

Addressing the fifth project goal, the nurses are using the Brazelton Neonatal Behavioral Assessment Scale. At 4 months they use the Nursing Child Assessment Satellite Training (NCAST) feeding tool. At 4, 8, and 12 months they screen for height, weight, head circumference, infant development, vision, hearing, and immunization. At 8 months they screen for light reflex, and at 12 months they conduct dental screening.

EVALUATION: Evaluation will include both process and outcome measures. Data collected include drug use (measured by the Addiction Severity Index and urine toxicology screens upon entry to the program and in the third trimester), use of services and compliance with referrals (measured by prenatal and postnatal flow sheets), birth outcomes (based on birth certificates), and long-term infant health and developmental outcomes (tracked using the Babies First! data base, the State's high-risk infant tracking system).

Outcome evaluation will include comparisons of cases and controls in terms of drug use during pregnancy (measured by urine toxicology), incidence of low birthweight, incidence of congenital anomalies, incidence of preterm birth, Children's Services Division referrals for abuse or neglect, foster care placement, and long-term infant development and health variables through 36 months of age. A repeated measures analysis of

drug use as measured by the ASI will be performed for program participants only. Process evaluation will begin with comparison of cases and controls regarding the adequacy of prenatal care. The use of services by the women in the treatment program will be tallied and described from the prenatal and postnatal flow sheets. Strengths and weaknesses of the service delivery portion of the program, along with creative solutions, will be derived from focus groups conducted with the nurses delivering care. We are currently exploring the possibility of conducting focus groups with clients.

EXPERIENCE TO DATE: In August 1990, the project director was hired and the first staff meeting was held. The first advisory board meeting was held in October 1990. With the hiring of our project evaluator in November 1990, the project became fully staffed. We began our randomized enrollment system in November 1990. The nurses began using the Addiction Severity Index in February 1991, the Nursing Child Assessment Satellite Training (NCAST) tool in June 1991, and the Brazelton Neonatal Behavioral Assessment Scale and two other high-risk screening tools in October 1991. As of December 31, 1992, we had a total of 224 women randomized (111 in the treatment group and 113 in the control group). In September 1992, both counties began implementing urine toxicology screening.

Our significant challenges have been associated with insufficient client referrals, the collection of urine samples for screening, and the delay in nurse focus groups. Through a process involving meetings with our manager and local county officials/providers and encouraging the START staff to consistently communicate with the providers who would be submitting client samples, we eventually were able to begin slowly implementing our screening protocal in both counties. Although some providers are still reluctant to collect urines for screening, the hiring of a program development specialist has dramatically facilitated communication with Multnomah County and probably has been the key to obtaining a commitment from the county.

The problem of insufficient client referrals has plagued us since we first began accepting referrals in November 1990. We had tried several strategies to overcome this problem. These included modifying our eligibility criteria; developing a program brochure for providers (our program design isn't conducive to recruiting clients); modifying our randomization process (our original randomization had an unequal sample size); obtaining outreach consultation; asking our program managers to find ways to consistently and extensively contact a variety of providers to ensure that clients were being referred; and hiring a program development specialist. Hiring the program development specialist is the strategy that seemed to have the most effect on increasing our client referrals/numbers. In Multnomah County (Oregon's largest county, with approximately 0.5 million residents of a total State population of 2.5 million), we had budgeted for nursing time but not for any significant amount of program management. The grant design requires extensive and consistent contact with a variety of providers to ensure that clients are being referred on a regular basis. This effort goes beyond the outreach role of our nurses in this county. It became apparent that, without the time, the incentive, and managerial support, "in-kind" management would not be able to fulfill the ongoing efforts needed to increase our referral numbers. Since hiring our program development specialist, the referral rate increased from 4 or 5 referrals per month to 9 or 10 referrals per month.

The problem of developing a nurse focus group was resolved by contracting for a mental health consultant. The consultant facilitated the initiation of focus groups by first providing ongoing support to help nurses manage their emotions/reactions to their clients' high-risk behaviors and the complex situations associated with these behaviors.

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CSAP/MCHB
SP-03753
09/15/91–08/31/95
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Michael Spence, M.D., M.P.H.

PROBLEM: Addictive behaviors among poor, urban, minority pregnant women in the Philadelphia area have reached epidemic proportions. Many low-income pregnant and postpartum women in urban environments are already at risk for perinatal morbidity and mortality due to a number of factors. These include poverty, urban stress, poor prenatal care, improper nutrition, inadequate housing, physical trauma, and the young age of these women. Research indicates that the threat to the health of the infant and mother is exacerbated when a woman abuses drugs during pregnancy. The problem of maternal substance abuse and infant health has been further complicated by the presence of sexually transmitted diseases. HIV and other sexually transmitted diseases have reached epidemic proportions in urban areas. Knowledge of low-income minority pregnant women about HIV prevention is frequently lacking. Skills in safer sexual behaviors are often deficient. The practice of bartering sexual behavior for drugs is another risk factor that suggests the necessity for multifaceted and culturally sensitive interventions to limit the spread of sexually transmitted diseases among this population.

Despite the psychosocial problems these women face, there is evidence that pregnant women who abuse drugs understand the impact of their behavior on their unborn fetuses and actually wish that they could control their addiction. However, economic, demographic, and cultural factors limit access to treatment for this population. Treatment facilities may have extraordinarily long waiting lists and may also be culturally insensitive and programmatically irrelevant to the needs of these women. The principal problem that this project addresses is the provision of relevant and cost-efficient care to pregnant women who abuse drugs.

GOALS AND OBJECTIVES: The goal of this project is to provide medical care and culturally sensitive and relevant substance abuse management on an outpatient basis for high-risk pregnant and postpartum low-income urban women. This will be achieved through a clubhouse model called CHANCES.

The objectives of the project are to:

1. Recruit a population of 30–45 inner-city minority women per year who need substance abuse intervention and prevention services;
2. Assess the physical health, substance abuse, and unsafe sexual behavior of these women;
3. Decrease the amount of substance use among pregnant and postpartum women through a program advocating abstinence and relapse prevention;
4. Decrease the amount of unsafe sex through substance use abstinence and HIV education and skills training; and
5. Establish liaison for the client in treatment with a variety of social, health, and educational services including prenatal care, well-baby care, job skills training, psychotherapy, and nutrition counseling.

METHODOLOGY: Treatment clients will be composed of women referred from the Obstetrics and Gynecological Services of Hahnemann University. Additional outreach will involve paraprofessional contact in local homeless shelters and housing projects. Clients will include women who test positive for substance metabolites in urine or admit to a history of substance abuse within the last year.

A number of multimodal interventions are available through CHANCES. Interventions designed for addictions treatment include individual and group counseling, family therapy, onsite Alcoholics Anonymous and Narcotics Anonymous groups, relapse prevention, and, where appropriate, pharmacotherapy. Onsite prenatal care is offered by a certified nurse-midwife who will case manage the health needs of clients. A certified pediatric nurse practitioner will provide care for the children. Linkage to other services is facilitated by an onsite social worker. Ancillary services include nutrition counseling, parenting skills training, problem-solving training, and job skills enhancement. The project emphasizes service provision by minority and female counselors. The project also provides the opportunity for family therapy for partners of our clients, and encourages participation of preschool children in the addictions recovery process.

EVALUATION: A decrease in the amount of substance abuse will be determined by comparing project participants with women who are wait-listed for treatment, as well as by examining change scores. The dependent measures for evaluation include the Addictions Severity Index and random urine tests. Knowledge of sexually transmitted diseases will be evaluated using change scores from the basic AIDS Knowledge Survey. Levels of pretreatment and posttreatment psychopathology will be assessed using the Symptom Checklist (90 R). A process evaluation will include extensive data collection on case management and educational services provided to individual clients, as well as substance abuse therapies provided.

Coordinated Maternal Addiction Project
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CSAP/MCHB
SP-01606
02/01/90–01/31/93
Project Director(s):
Janice P. Zelenak, Ph.D.

PROBLEM: The literature indicates that birth outcomes for infants born to women who are addicted to alcohol and/or other drugs can be improved through provision of specific services. This project provides services designed to address gaps in treatment provisions and access to services. These gaps include:

1. Underidentification of women who are addicted while pregnant and underreferral by health professionals;
2. Lack of coordination of services available to these women;
3. Absence of services for improving compliance and retention within health care services of women who are addicted while pregnant;
4. Insufficient public health services for the target population; and
5. Lack of postnatal in-home services which can provide early assessment and intervention for the babies and mothers.

GOALS AND OBJECTIVES: The overall goal of the project is to develop a comprehensive program which provides services designed to produce better medical/developmental outcomes for infants of mothers who abuse alcohol and other drugs. This project involves the integration of agencies and institutions throughout the targeted geographic area. The specific objectives designed to meet the overall goal are to:

1. Increase recognition and referral of eligible women to the project by applying specific procedures and services to the community;
2. Increase enrollment in the program and compliance with programmatic goals through an aggressive outreach effort using indigenous outreach workers and Allegheny County Health Department (ACHD) public health nurses;
3. Improve the medical/developmental outcomes for infants after they are born within the family context by assessing and providing interventions appropriate for the developmental and behavioral status of the infants and the qualities of the mother/child interaction over time; and
4. Improve the mothers' participation in primary pediatric care for their infants by providing targeted outreach, community education, and medical inservice training.

METHODOLOGY: The project has employed the following methodologies to meet its goals and objectives:

1. The project provides educational programs to the community at large and to each collaborating institution/agency. These educational programs discuss various issues relating to maternal addiction as well as the procedures for referral to the project. The educational programs include speaking engagements, video presentations, brochures, a reference manual, and fact sheets.
2. The project formed a consortium of 7 area hospitals and more than 30 social service agencies from which each participant can obtain care coordinated by the project.
3. The project hired and trained community outreach workers who visit each prospective client and advocate for initial and continued participation with the program and monitor participation in referred services.

4. The project hired an intake coordinator who manages and monitors all intakes until they have been assigned to case managers.
5. The project refers clients to an alcohol and other drug treatment program which specializes in the treatment of women who are addicted while pregnant. This program provides for outpatient drug-free and methadone treatment using individual and group therapy modalities.
6. Each client is assigned a case manager who manages the client's referral and acquisition of services.
7. The project hired and trained child development specialists who provide in-home postpartum assessments and interventions.
8. The project applies standard assessments to all prospective clients and enrollees.
9. The project uses a specially designed computerized system for collecting information and monitoring referral outcomes.
10. The project hired and trained public health nurses to visit the clients prenatally to assess each client and home environment, make appropriate referrals, and provide assistance in preparing for the birth. The public health nurse also visits the clients postnatally to provide standardized assessments of the client, the infant, and the home environment; to make appropriate referrals for any member of the client's family; and to provide information on medical issues, hygiene, and parenting.

EVALUATION: The project evaluation includes the following components:

1. A process evaluation: The purpose of the process evaluation is to document program activities so that other communities have sufficient information to replicate or adapt the proposed program.
2. An outcome evaluation: The outcome evaluation allows for the evaluation of all specified outcomes of the project. The plan involves four general approaches: (a) Estimates of the yield for service delivery, defined as the proportion of identified women for whom the program meets each of a series of objectives; (b) comparisons before and after implementation of the outreach, referral, and followup system of identification, referrals to the program, client compliance, and client outcomes; (c) a prospective quasi-experimental comparison of compliance (with drug treatment, education, and prenatal visits) between program enrollees and nonenrollees; and (d) creation of participant profiles by type of addiction, psychosocial characteristics, needs, and demographic variables to discover whether service delivery methods are differentially effective for some profiles over others.

EXPERIENCE TO DATE: The following are the major activities and outcomes of the project to date:

1. All staff have been hired and trained.
2. Prenatal identification of eligible women in the targeted area far exceeded projections for the first and second years of the project. As a result, enrollment was closed. Education requests for the medical community and the public sector increased over the second year.
3. An identification procedure for use at each institution has been developed. This procedure is tailored to each institution's health history forms which are used in the prenatal clinics, labor and delivery, or postpartum sections of the hospitals. The identification procedure involves the development of a risk assessment form. This method continues to be presented and requested by collaborating medical facilities. Requests to join the consortium continue to increase.
4. A draft of the reference manual has been developed. The reference manual details the referral procedure for the program as well as pertinent information on maternal addiction. The reference manual has been distributed. At the request of the Pennsylvania Department of Health, Office of Drug and Alcohol Programs, a manual has been developed and is being published that will provide guidance for development of similar programs across the State.
5. Standard operating procedures have been developed for all procedures in the project.
6. A multidisciplinary treatment team meeting has been implemented which addresses the clinical management of each enrollee and participant.
7. The management information system has been implemented and extended to reach all emerging needs of the growing project.

8. The project is working with the local child welfare agency on methods of improving outcomes for enrolled families. A formal collaborative agreement was found to be the most effective way to exchange information and facilitate communication with the child welfare agency.
9. The project has developed a subcommittee of other alcohol and drug treatment providers and early child interventionists which will address the issue of providing training and technology transfer in the area of maternal addiction.
10. The outreach components are operational. Outreach staff were increased in the community outreach, nursing, and child development component. The needs of this population are so complex and so great that small caseloads must be maintained to allow workers to make contact in a sustained manner.
11. Preliminary findings indicate that we have succeeded in improving identification and referral to the program. The majority of the women, however, were referred in their postpartum period and were more severely addicted. We implemented an identification method aimed at improving prenatal referrals, and referrals began to approach the beginning of the second trimester before enrollment closed.
12. As we near the end of the project, much interest has been generated to continue the postnatal, in-home component and a case management referral system. Several areas of funding are being pursued to continue these components as service programs.

Help at PPC-AEMC for Substance-Abusing Pregnant Women

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CSAP/MCHB
SP-01187
02/01/90–01/31/95
Project Director(s):
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PROBLEM: Cocaine abuse seriously affects both mother and child and disorganizes their lives. Substance-abusing pregnant women are difficult to reach and engage in treatment. It is necessary to reach out to them and provide them with a great deal of support to solve the practical problems of their daily lives.

The two windows when substance-abusing pregnant women are most likely to enter treatment are when they first discover they are pregnant and just after they deliver their babies, based on their guilt over jeopardizing defenseless beings.

Pregnant substance abusers are easily frightened away, related to earlier betrayal, deprivation, and abuse. Our most successful client engagements result from staff who are direct, casual, and forthright (almost intrusive), but who use their sensitivity as anesthesia.

The program clientele of crack mothers and crack babies are mostly poor and black.

GOALS AND OBJECTIVES: The goals of the project, which include four of the five program goals listed by the Center for Substance Abuse Prevention (CSAP) for a treatment demonstration for pregnant and postpartum women and their infants, are to:

1. Increase the availability and accessibility of prevention, early intervention, and treatment services for these populations;
2. Decrease the incidence and prevalence of drug and alcohol use among pregnant and postpartum women;
3. Improve the birth outcomes of women who used alcohol and other drugs during pregnancy and decrease the incidence of infants affected by maternal substance use; and
4. Reduce the severity of impairment among children born to substance-using women.

The program objectives for achieving each of the CSAP goals are as follows:

1. Increase the availability of treatment services by providing an intensive and comprehensive multimodality outpatient (drug-free) early intervention and treatment program for 300 substance-using or substance-abusing pregnant women;
2. Augment existing services that are available for women residing in the north and northwest sections of Philadelphia, including pregnant women who currently come to the Albert Einstein Medical Center (AEMC) for medical services, by creating a new substance abuse intervention and treatment program;
3. Reach these women as early as possible in their pregnancies in order to (a) increase and improve the prenatal medical care they obtain, and (b) achieve earlier abstinence or reduction in the degree of their substance use/abuse and improve their level of functioning in their mothering roles and their level of coping with their life situations; and
4. Reduce the usual high rates of attrition and dropout from treatment generally seen in this patient population by (a) employing case managers who will maintain weekly contact with the patients by visiting their homes and other places where they can be found in the community, and (b) providing the patients with some practical support in the form of transportation to the program and day care services if they have children (supported by the Junior League of Philadelphia).

METHODOLOGY: The primary method of treatment presented in our original program plan consisted of a variety of group approaches, including group therapy/counseling, discussions and rap groups, information instruction and seminar groups, and group activities. The clients' needs are addressed in practical ways, and their emotional lives are explored during the same contact.

We find that the group procedures are important and appear to be effective in involving and maintaining the interest of the patients. It is clear that counseling is also helpful. The women need a sense of being listened to and nurtured in an individual way. This gives them the special acknowledgement that they are being regarded personally. This personal regard increases their self-esteem, which is notoriously low.

EVALUATION: For both process and outcome evaluation, the following data forms have been completed on each patient within a period of 1 to 2 weeks after admission to the program: Structured Psychosocial History Form, Medical History Inventory, and AIDS Questionnaire. More recently, but not for the patients admitted during the first 6 months of the program, the following additional instruments have been administered, which require readministration for followup and outcome evaluation: The Addiction Severity Index (ASI) and the Uniform Data Collection System Form (UDCS), which includes a drug use history grid.

EXPERIENCE TO DATE: While there were many more referrals, at least 250 patients came for intake from April 1990 to September 1992. The majority of the referrals from outside Albert Einstein Medical Center did not show. Upon followup, they could not be reached either by telephone or by an attempted home visit by our outreach worker, or they declined treatment.

Home Visiting Program
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CSAP/MCHB
SP-02174
07/01/90–06/30/95
Project Director(s):
Natalie Levkovich

PROBLEM: Chemical dependency places egnant and postpartum women and their infants at increased risk for health problems, often interferes w utilization of recommended preventive and therapeutic health services, and reduces the family's ability to nurture and encourage the positive development of infants and other children. A large number of pregnant and postpartum women abuse substances in the target community of North Philadelphia. An even larger number of women are not yet chemically dependent, but share many of the characteristics which place them at highest risk for substance abuse.

Substance abuse and mental health problems are frequently undetected in the primary care setting. In addition, resources for appropriate screening, referral, and case management of patients are extremely limited, as are resources for providing counseling and psychosocial support. These important services are generally not available either at a single site or as part of routine prenatal and postnatal care.

GOALS AND OBJECTIVES: The project goals are to:

1. Promote the coordinated involvement of multiple organizations in the delivery of comprehensive services to the target population;
2. Increase the accessibility of prevention, early intervention, and treatment services;
3. Decrease the incidence and/or amount of drug use among enrolled clients;
4. Improve birth outcomes to enrolled women; and
5. Prevent/reduce the severity of impairment among infants born to enrolled clients.

The principal objectives are to:

1. Establish a linkage between a community health center, an academic medical center, and the Health Federation to provide coordinated multidisciplinary care;
2. Increase the capacity for providing mental health and addiction screening and counseling services in the primary care setting;
3. Enroll high-risk perinatal clients and maintain an active caseload of at least 100 women, approximately 20 percent of whom are substance abusers and 80 percent of whom are at high risk for substance abuse;
4. Identify drug- and alcohol-dependent pregnant and postpartum women and provide them with medical services, outpatient counseling, social support, and case management services to facilitate reduction in drug and alcohol use;
5. Identify pregnant and postpartum women at high risk for substance abuse and provide them with medical, educational, mental health, support, case management, and other specific services to prevent substance abuse;
6. Reduce the number of low birthweight deliveries for prenatally enrolled clients by 30 percent by the end of year 1;
7. Enroll high-risk postpartum women, retain 75 percent of prenatally enrolled clients for 3 or more months after delivery, and retain 60 percent of enrolled clients for 6 or more months postpartum;
8. Provide parenting education/support to improve parent-infant bonding and parenting skills; and

9. Prevent or reduce untreated health problems, failure to thrive, abuse/neglect, developmental delay, and/or other negative outcomes for infants in the first year of life.

METHODOLOGY: The Home Visiting Program formally links Quality Community Health Care (QCHC), a federally funded community health center, with Temple University School of Medicine, Department of Psychiatry. Additional informal linkages also exist between QCHC and two tertiary hospitals, a detoxification program for women, and an intensive day treatment program for women with onsite child care for their children.

The Home Visiting Program, coordinated and evaluated by the Health Federation, is based on an indigenous community worker model. Women who reside in the target neighborhood and who are mothers themselves are recruited, intensively trained, and carefully supervised by a nurse. These women provide in-home services to program clients. Services include informal health and parenting education, including anticipatory guidance and parent modeling; psychosocial support/relationship building; needs/risk assessment based on a prenatal and postnatal questionnaire and first-hand, culturally sensitive observation; and linkage to services at QCHC and other community resources. The project nurse supervises home visitors, coordinates home visiting with clinical care, provides postpartum nurse home visits for physical assessment and teaching, provides clinic-based group education, and works closely with the social worker on case management and counseling issues. The clinical social worker, provided onsite to QCHC by Temple University's Department of Psychiatry, provides screening and assessment of all prenatal patients, as well as women identified at delivery or postpartum, for identification of abuse and/or particular risk for abuse of substances and/or mental health issues among the target population. She provides individual and group counseling at QCHC, initiates prevention-oriented education/support groups, and refers clients for needed mental health and/or drug and alcohol treatment services offsite (at Temple University and elsewhere, as appropriate). Thus, clients are provided with multidisciplinary and culturally appropriate support, education, counseling, and case management services integrated with prenatal, postpartum, and pediatric care onsite at a community-based primary care center. Services are offered during pregnancy and for 1 year postpartum.

EVALUATION: Extensive data are being collected on the characteristics of enrolled clients and their utilization of various components of services. Outcomes, such as infant health status, parent-infant bonding, clients' social support system, and level of drug and alcohol use over time, will be examined in relation to the process variables. Population-based comparison data, as well as baseline patient data, are available with regard to service utilization and birth outcome patterns.

Prevention of Cocaine Abuse by Pregnant Women:
The Caring Together Perinatal Addictions Program

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CSAP/MCHB
SP-01565
02/01/90-01/31/93
Project Director(s):
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PROBLEM: The dramatic increase in cocaine abuse in recent years is reflected in an increased number of pregnant women who abuse cocaine. These women and their infants constitute a population at risk for significant morbidity. Preliminary reports indicate a high incidence of preexisting psychopathology in women addicted to cocaine. In addition, there are major obstetric complications associated with the use of cocaine, including abruptio placentae, perinatal asphyxia, premature labor, and intrauterine growth retardation. Infants born to cocaine-abusing mothers have been described as being difficult to nurse, having poor motor control, and being hyperactive or hypoactive in response to their environment. These findings, together with the maternal behavioral changes secondary to the use of cocaine and coexisting psychopathology, place these infants at risk for child abuse and neglect, failure to thrive, neurodevelopmental delays, and school failure.

GOALS AND OBJECTIVES: The purpose of the Caring Together Program is to provide early, well-coordinated, multidisciplinary intervention in the prenatal and perinatal period in order to decrease the incidence of drug use, maintain compliance with prenatal care visits, and decrease perinatal morbidity and mortality associated with cocaine abuse.

The following objectives are designed to address these goals:

1. Provide perinatal, postpartum, psychiatric, and drug treatment services to all women enrolled in the Caring Together Program;
2. Educate women regarding appropriate parenting skills in order to decrease the incidence of child abuse and neglect, failure to thrive, and neurodevelopmental delays in infants born to participating mothers;
3. Provide pediatric care, including developmental assessments and referrals for special services for infants whose mothers are enrolled in the program;
4. Provide community outreach services to a target population that often does not utilize existing multidisciplinary services that it so sorely needs;
5. Present inservices and presentations to community agencies to increase awareness of the specific needs of cocaine-abusing women; and
6. Evaluate medical staff attitudes toward women who use cocaine and provide educational and supportive programs for the staff.

METHODOLOGY: The Caring Together Program is dedicated to providing a new life without crack cocaine for mothers and babies. The program focuses on cocaine-abusing women who deliver infants or seek prenatal or pediatric care at the Medical College of Pennsylvania. Clients receive individual and group counseling as well as a full psychiatric evaluation and treatment. Aftercare and followup are also an integral part of the overall treatment plan.

Program goals and objectives will be achieved through:

1. Screening of patients in the maternity ward, prenatal clinic (both regular and high-risk), and pediatric clinic for possible substance abuse to identify potential clients. Screening is performed by the Caring

Together Program staff utilizing the modified National Institute of Drug Abuse (NIDA) Crack Scale, the Center for Epidemiological Studies Depression Scale (CES-D), and the Rosenberg Self-Esteem Scale, and alcohol screening;

2. Outpatient individual and group substance abuse treatment which focuses on the 12-Step philosophy; clients who need a long-term residential treatment program are referred accordingly;
3. Psychiatric evaluations and short-term individual and group psychotherapy;
4. Provision of infant and sibling pediatric care by the pediatric nurse practitioner and pediatrician/neonatalogist;
5. Social services available to all women enrolled in the Caring Together Program;
6. Linkage to community resources that include effective referral arrangements with residential, detoxification, and delivery care agencies;
7. Development of a family program that will provide drug education and supportive services to families of women enrolled in the Caring Together Program; and
8. Urine toxicology screening which serves as a vital component in developing the individual treatment plan. The urine screen will also be used to encourage the client to remain drug-free throughout treatment.

EVALUATION: Evaluation of the Caring Together Program will continue to focus on five primary areas:

1. Further characterization of the population at risk and identification of the adequacy of screening approaches, investigation of risk factors associated with cocaine use, and evaluation of the differences between users and nonusers in terms of level of depression, self-esteem, and alcohol use;
2. Identification of factors associated with program participation and program outcomes that would be useful in distinguishing individuals who are good candidates for aggressive intervention and followup;
3. Specific documentation of the relationship between program activity level and patient outcome in terms of reduced drug use and improved perinatal/pediatric outcomes;
4. Investigation of the perinatal/pediatric health outcomes associated with maternal cocaine use; and
5. Longitudinal followup of individuals known to have been cocaine positive and/or involved in the Caring Together Program.

Because of the surveillance and patient identification systems we have established for screening all pregnant women, regardless of their cocaine use, we are in a unique position to address the five areas outlined above. Computer programs have been developed for data entry and editing for the majority of the data required to conduct relevant analysis, and procedures have been established for data collection or retrieval of most variables. Substantial energy will be devoted to abstraction and data entry of perinatal and pediatric data from the medical records of the mother/child.

EXPERIENCE TO DATE: The Caring Together Program, currently in its third year, consists of three parts: (1) The screening evaluation/referral component, (2) the outpatient mother/infant treatment program, and (3) assessment of medical staff attitudes and development of the staff educational program component within the Medical College Hospital.

The Caring Together Program is a fully licensed drug treatment program and has established itself as an important resource within the Medical College of Pennsylvania as well as the North Philadelphia community. This is reflected in the increased number of referrals to the program, requests for speaking engagements by program staff, and requests for advice regarding patient care issues from the medical community. The program continues to assess hospital staff attitudes toward addicted patients and to provide ongoing educational programs for medical students, residents, and nursing and medical staff.

Rural Community Interventions for Substance-Using Women

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CSAP/MCHB
SP-01507
02/01/90-01/31/95
Project Director(s):
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PROBLEM: Disadvantaged, low-income rural women and their families comprise a significantly underserved population. They are at special risk for socially normative drug use, especially alcohol and tobacco, but have very limited access to education, prevention, or intervention programs. Existing data, previously collected by the project director during a 5-year prospective longitudinal study of adolescent pregnancy and substance abuse in the subject community, reveal a significant need for additional services for pregnant and parenting women in rural, economically disadvantaged communities.

GOALS AND OBJECTIVES: The overall goal of this project is to develop community programs that target the prevention and remediation of alcohol, tobacco, and other drug use during pregnancy and the postpartum period in a rural community. The specific objectives of the project are to:

1. Organize a community task force and conduct a needs assessment related to pregnancy, parenting, and prevention of drug and alcohol abuse as part of a process leading to lasting mechanisms for coordination and modification of health and education services;
2. Develop and implement a parent education and personal skills program integrated with health education for expectant mothers and mothers of children from birth to 3 years of age in community settings such as the Special Supplemental Food Program for Women, Infants and Children (WIC) groups, Family Health Services, and childbirth classes; and
3. Develop and implement personal skills training and a primary prevention program related to drug and alcohol use and sexual activity for high-risk adolescents in the junior and senior high schools, integrated across the school curriculum.

METHODOLOGY: The community-coordinated program has been initiated through two delivery systems which have already participated in earlier data collection with the project director: The Family Health Services agency (FHS) and the public school system. In addition, a community task force has been mobilized to take a leadership role in planning prevention and intervention efforts within the community. The approach used in both drug abuse prevention and parent education is integrative across behavioral domains and across social/educational contexts; similarly, the community-oriented public health approach provides an overall integrative framework for the entire project. Programming in each area is based on community data, planning, and participation.

The following tasks are being undertaken to achieve the project goals:

1. Elaborate on the definition and characterization of the community through interviews with key informants;
2. Collate and analyze data already available on community health problems to provide further understanding of how targeted health areas relate to other health and social issues;
3. Assess health needs of women of childbearing age through a community survey;
4. Institute an intervention program on personal health and life skills for pregnant adolescents;
5. Implement a primary prevention program across different subject areas in the junior and senior high school curriculums;

6. Provide teacher inservice training in integrative prevention strategies for use in various subject areas;
7. Develop parenting/personal skills/prevention of substance use classes for pregnant and parenting women; and
8. Help existing service providers to incorporate substance abuse prevention into their delivery systems.

There is a deliberate overlap in programmatic areas between the community service agencies and the schools. This type of multiple programming will provide reinforcement of skills, knowledge, and insights from one type of audience to another, and will help create a community norm related to substances, pregnancy, and early childhood.

EVALUATION: Process evaluation of the community-based organization and task force will include a narrative of the contacts and events that led to the formation of the task force, the use of the community assessment information, and the community initiatives developed. Process evaluation of the school-based and agency-based efforts focuses on client characteristics; participation in new initiatives; feedback regarding impressions of programs and services; observations of programs by staff to determine adherence to program design and accuracy of information; costs; and staff needs and program implementation and integration.

The outcome evaluation will use data collected at the community and agency levels concerning overall substance use and mother-infant outcomes. Using the initial community assessment as baseline information, periodic monitoring of related information through medical, hospital, and agency records will, over time, provide a quasi-experimental evaluation of the ultimate effects of this project. More detailed evaluation methods will be used with the pregnant and postpartum women and their infants, and with the students receiving prevention education. The evaluation designs will include comparison groups for the targeted pregnant and postpartum women. For the school prevention program, comparison data from a similar school district will be collected.

EXPERIENCE TO DATE: Highlights of the program include the following:

1. A series of task force meetings as well as individual interviews with community representatives have been held to acquaint them with the project, seek their support of and participation in the community task force, and provide feedback on aspects of the project.
2. Project members have conducted a half-day inservice prevention workshop for all seventh, eighth, and ninth grade faculty in the program school district.
3. Forms for recording child and maternal birth outcomes were developed on the basis of information extracted from WIC/FHS and hospital forms found to be useful for project purposes and were used to collect data on birth outcomes.
4. A community health survey instrument was designed and presented to members of the task force for review before implementation. The survey was completed with a 73 percent return rate; the results were presented to community task force members and are being used as a basis for new program development.
5. The school survey instrument has been designed and is being used to collect pretest baseline data and ongoing evaluation data for all students in junior high school in year 1 in the program school district.
6. The school survey instrument is being used to collect data from secondary school students in another demographically similar community for comparison purposes.
7. Parent educators have been trained to deliver two parenting programs which incorporate prevention messages about the use of alcohol, tobacco, and drugs (one program targets women with infants and children, and the other targets pregnant women).
8. Resources and materials have been identified, reviewed, and disseminated to agencies serving pregnant and parenting women and their families.
9. Lesson plans regarding drug and alcohol use during pregnancy have been developed, piloted, and integrated into the health curriculum for use by area teachers.
10. Two school district teachers have received specialized prevention training and have begun to implement the curriculum in their eighth grade classes.

11. An all-day student inservice program, designed and conducted for all students in grades 9–12, focused on preventing problem behaviors, enhancing self-esteem, and building decision-making skills.
12. Lessons on alcohol, tobacco, and other drug use for postpartum women have been developed for inclusion in a Cooperative Extension Service curriculum, entitled *Visits with You and Your Baby*.
13. Inservice training was provided to community medical professionals who work with pregnant and parenting women; training focused on fetal alcohol syndrome, drug effects, and adolescent pregnancy.
14. Prenatal education classes are now offered on a continuing basis to community women and their partners.
15. Postnatal home visits are being performed by a graduate level nurse in cooperation with the University's Nursing Department.
16. Monthly interagency luncheon meetings have been established to aid in cooperation and networking among service providers in the target community. The meetings have grown to include more than 30 agencies, and the group has developed a service directory for women in the community. Examples of cooperative programming include health fair participation, birthing classes, and sexual health awareness programs offered to youth at the Youth Service Bureau.
17. *Here's Looking at You 2000,* a substance abuse prevention curriculum, was implemented with fourth and fifth graders.
18. Lunchtime prevention presentations and needs assessments were conducted for women at five garment factory worksites.

Substance Use in Pregnancy and the Postpartum: The Mercy Catholic Medical Center Integrated Prevention and Treatment Model

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CSAP/MCHB
SP-03036
09/30/91–08/31/94
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PROBLEM: A wide range of licit and illicit substances are known to have adverse effects on developing fetuses when abused by pregnant women. At the Prenatal Clinic of the Mercy Catholic Medical Center (MCMC) (located in a suburb near Philadelphia), 51 percent of the 450 women who deliver each year are heavy cigarette smokers; 18 percent report alcohol use during pregnancy; and 25 percent either report substance use (mainly cocaine and marijuana) (5 percent), have a positive urine toxicology screen during routine testing (15 percent) or emergent visits (5 percent), and/or give birth to infants who test positive for cocaine derivatives in the meconium (an additional 5 percent). Fifty percent of the caseload reports one or more of the following risk factors associated with substance abuse: History of physical and/or sexual abuse, current drug or alcohol use, history of substance abuse (current nonuser), history of psychiatric problems, adolescent age status, other children in foster care placement, significant financial problems, partner who is a substance abuser, and history of attempted suicide.

Despite the prevalence of maternal substance use and the associated risks, treatment options are tragically limited. Many programs designed to treat substance abuse refuse to treat pregnant women, do not accept Medicaid payments, or are not equipped to meet the special needs of pregnant mothers for child care, drug-free housing which accommodates children, and transportation. The intrauterine life and early infancy of babies born to substance-using and at-risk women in our clinic are compromised.

GOALS AND OBJECTIVES: The project has established the following goals and related objectives:

Goal 1: Promote the involvement and coordinated participation of multiple organizations in the delivery of comprehensive services for substance-using pregnant and postpartum women and their infants.

Objectives:

a. Collaborate with the University of Pennsylvania's Treatment Research Center (TRC) for the provision of onsite substance abuse treatment to clinic women;

b. Conduct aggressive outreach to pregnant patients presenting to the emergency room unregistered for prenatal care to increase the number of such women entering care; and

c. Enhance continuity of care after the birth of the infant through collaboration with the MCMC Pediatric Clinic and community parenting programs.

Goal 2: Increase the availability and accessibility of prevention, early intervention, and treatment services for substance-using pregnant and pospartum women and their infants.

Objectives:

a. Provide nurse-midwife routine screening and preventive education to 450–500 women and intervention for substance abuse and psychosocial stressors to 150–200 pregnant women per year; and

b. Make our program accessible through the provision of onsite child care and transportation.

Goal 3: Decrease the incidence and prevalence of drug and alcohol use among pregnant and postpartum women.

Objective: Decrease alcohol, cigarette, and other drug use in Fitzgerald-Mercy Prenatal Clinic clients by 80 percent through the provision of direct substance abuse intervention services provided onsite.

Goal 4: Improve the birth outcomes of women who used alcohol and other drugs during pregnancy and decrease the incidence of infants affected by maternal substance use.

Objective: Through the reduction of cigarette, alcohol, and other drug use, improve the birth outcomes of women using these substances during pregnancy.

Goal 5: Reduce the severity of impairment among children born to substance-using women.

Objectives:

a. By reducing the drug and alcohol use of pregnant women and providing comprehensive prenatal care, reduce the severity of impairment among infants born to substance-using women;

b. By providing ongoing substance abuse treatment onsite up to 1 year postpartum, enhance the maternal-child relationship, thus mitigating against initial impairment among children born to substance-using women; and

c. Provide developmental screening at age 6 months for all infants born to substance-abusing women to facilitate appropriate referral and ongoing pediatric care in the Fitzgerald-Mercy Pediatric Clinic.

METHODOLOGY: A comprehensive, nurse-midwife-centered, substance abuse prevention and treatment model will address the multiple and varied needs of women during pregnancy and the first year of the infant's life. This program, based in the prenatal clinic of Mercy Catholic Medical Center, Fitzgerald Division, under the direction of faculty of the University of Pennsylvania Graduate School of Nursing, links several existing services which, in and of themselves, are underequipped to meet the needs of this population. In addition, the project proposes the development of a new program to address serious gaps in existing services within the hospital and the larger community.

Program efforts include both prevention and treatment services, with the goal of reducing maternal substance use during pregnancy and postpartum (thereby improving maternal and infant outcomes). All women registering for care in the prenatal clinic, or any pregnant women presenting to the hospital for any reason who are not engaged in a program of prenatal care, will be screened for substance use (drugs, alcohol, and cigarettes) and for psychosocial stressors or risk factors.

Clinic-based activities will include:

1. Systematic education on the risks of substance abuse;
2. Psychosocial counseling aimed at stress reduction; and
3. Substance abuse treatment consisting of (a) assignment to a nurse-midwife care coordinator who provides continuity of prenatal care, home visits, and followup for retention and compliance; (b) development of an enhanced obstetric care plan providing increased fetal safeguards; (c) evaluation by onsite substance abuse treatment providers; (d) provision of individual and/or group outpatient treatment for substance abuse; and (e) collaboration with agencies providing postpartum care and provision of developmental assessments for the infants of moderate/heavy users.

Outreach activities targeted outside the clinic population include the development of a preventive education program on substance abuse and its impact on pregnancy for use with community groups, and aggressive outreach to patients presenting to the emergency room with no prenatal care.

EVALUATION: A process evaluation is planned to provide feedback on an ongoing basis to improve service delivery and to document the implementation process so that the program can be replicated in other settings. Three types of data will be collected to describe the services available and the services utilized during the project period: (1) Patient status measures, (2) program descriptive information, (3) services actually received by the patient during treatment, and (4) staff reports of the patient's response during treatment. An outcome evaluation will be conducted to determine the extent to which treatment goals are successfully met. All patients who are eligible for the interventions and who voluntarily consent to

participate will be administered a complete battery of evaluation instruments designed to characterize their status in relevant areas of adjustment (i.e., substance use, psychosocial stressors, and health status). This battery will include an interview, questionnaires, and verifiable data from objective measures. The battery will be repeated three times: (1) During the initial week, at the start of the substance abuse intervention, (2) toward the end of the prenatal intervention period, between the 34th and 36th weeks of pregnancy, and (3) at a followup evaluation, 6 months after delivery. Since these measures will be applied both to participants who complete the full intervention (completers) and to early dropouts, we will be able to compare the performance of these two groups in attaining program goals. An overarching goal of this program is to provide services successfully to a group of women who, for the most part, are not seeking such care and may not consider themselves in need of it. Therefore, an important outcome measure is service utilization. We will compare the total number of women who are admitted to care before and after the interventions were available and we will compare the proportion of women dropping out of care before and after the project is implemented. This will include both onsite services and those to which women are referred.

EXPERIENCE TO DATE: The project was launched October 1, 1991. During year 1 project startup, hiring and staff training occurred. Individual and group addiction work was initiated, and pilot testing of assessment tools and group design was started. The nurse-midwife care coordinator role is firmly in place.

Blackstone Valley Perinatal Network MCH Substance Abuse Project
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CSAP/MCHB
SP-02358
07/01/90–04/30/95
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PROBLEM: The Blackstone Valley Perinatal Network (BVPN) is designed to create a community-based program to help (1) women who are current substance abusers or at high risk for abusing substances, (2) their children, and (3) their families. The program provides a model of linking community health centers and a community hospital outpatient department with substance treatment and other community agencies to prevent, identify, and treat substance abuse and help families with substance-exposed infants.

In our community as well as nationally, maternal and child health and substance abuse treatment services are badly fragmented. As a result, pregnant women and women with children are excluded from many programs. Twenty-five agencies will participate in coordinating existing services in order to meet the needs of women and their families. New direct client services to be developed include home visitation by substance abuse counselors, prenatal groups for women involved with drugs, an intense postpartum parenting group for parents of substance-affected babies, a grandmothers group, and an emergency fund.

GOALS AND OBJECTIVES: The purpose of this project is to demonstrate an innovative community-based response to this problem. The specific project goals are to:

1. Attain measurable improvement in the delivery of care to the target population and a resultant decrease in social, developmental, and medical adverse outcomes;
2. Develop the organizational capacity to respond in an integrated fashion to the medical, psychosocial, and substance abuse treatment needs of women and their families;
3. Develop linkage of health care activities with other activities in the community to promote primary prevention of substance abuse, early identification, and rehabilitation of families who are currently abusing substances or who are at high risk for substance abuse;
4. Initiate a program to promote the development of enlightened public policy to respond to the broad societal challenges presented by substance-damaged families;
5. Develop the capacity to monitor and evaluate substance abuse patterns in the target population and community-based treatment responses; and
6. Disseminate information on the model program to other communities in the State and the Nation.

METHODOLOGY: Three substance abuse counselors have joined existing maternal and child health (MCH) teams at two community sites and a hospital-based residency training family practice. They each work half-time at these sites, providing case management and counseling services to substance-abusing women and their families, and education and preventive counseling to women at high risk for substance abuse. They spend approximately 10 hours per week working with substance abuse treatment agencies in the community. As part of their daily work with MCH teams and substance abuse agency staff, they will provide on-the-job education. The rest of their time is devoted to project development activities and primary prevention services at community sites, particularly housing projects.

A key component of their role is to identify problems in coordinating services for the target population, including problems relating to staff attitudes and knowledge, program policies, lack of interagency coordination, or lack of service availability or capacity. A "working group" composed of the MCH teams

and other agency representatives meets weekly. This group assists in planning and implementing responses to identified problems. A major emphasis of the group currently is to expand services to Hispanic families.

On a quarterly basis, the directors of health, substance abuse treatment, mental health, and social service agencies and other community organizations meet to promote agency cooperation with program development, work out interagency coordinating policies, and plan responses to unmet needs. Agency directors also identify issues and problems requiring communitywide or statewide policy or legislative response. A State policy forum meets quarterly and is composed of directors of State agencies or their representatives, key legislative representatives and staff, and other State leaders. A State leadership conference is held annually in late fall. This conference brings together 100 individuals involved in providing services, directing agencies, and setting policies to discuss issues related to the needs of the target population. The last fall conference addressed the interrelationships between health centers, substance abuse treatment agencies, and the Department of Children, Youths, and Families. The conference also focused on the use of Medicaid funds to pay for services needed by the target populations and their families.

EVALUATION: An existing maternal and child health information system linking the two participating health centers and the hospital outpatient department in a common community data base has been modified to include information related to substance abuse. The information base includes registration and encounter-based information about women and infants, including medical and obstetric, psychological, social, developmental, and health care utilization. This data base is also being installed in the pediatric developmental assessment unit in the hospital. Utilization data identify all agencies involved and referrals made for the women. Additional spreadsheets have been developed to capture agency-specific and systems data. The project also is capturing process information on interagency and systems relationship developments, and staff and clinic project involvement.

EXPERIENCE TO DATE: This project has successfully created a model that links and integrates primary care for women, children, and their families at community health centers and at a community hospital outpatient department with substance abuse services. During the past year, 651 high-risk women were screened for substance abuse: 646 received prevention services, 80 received early intervention, 18 received inpatient treatment, and 29 received outpatient treatment.

In addition, fragmentation of services and the unique needs of women substance abusers were addressed through education, training, and advocacy. A total of 3,155 health personnel, legislators, substance abuse practioners, and policymakers received services through this project's innovative community-based response to the problem. Developing an interdisciplinary multiagency approach in a medical setting has been the key to the first successes of this project.

Project LINK
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CSAP/MCHB
SP-02316
09/30/91-07/31/96
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PROBLEM: Substance abuse in pregnancy has been identified as one of the major health and social problems facing our States, and Rhode Island is no exception. A 1989 statewide prevalence study, conducted by the Rhode Island Department of Health, revealed that 7.5 percent of all women admitted to the State's eight maternity units had used illegal drugs within 2 days prior to delivery. The reported rates most likely underestimate actual drug use since the toxicology screen was only sensitive enough to identify use during the previous 48 hours. The statewide prevalence study reported that 8.9 percent of Women and Infants Hospital patients tested positive for any illicit drug use, compared with 6.1 percent for all other hospitals combined. Women and Infants Hospital patients were four times more likely to have used cocaine. Recent evidence suggests that substance abuse in pregnant women is increasing at alarming rates. If we are to be successful in our attempts to mitigate the detrimental effects of substance abuse in pregnancy, we must establish multidisciplinary programs that are flexible enough to respond to the needs of women at various stages of abuse.

Women and Infants Hospital is the seventh largest maternity hospital in the United States and is the regional perinatal center for Southeastern New England, encompassing all of Rhode Island, southeastern Massachusetts, and western Connecticut. The hospital had 9,377 deliveries in 1989, representing 67 percent of all deliveries in the State. Approximately 65 percent of patients have private physicians, and 35 percent of patients receive their prenatal care in the hospital's clinic. Women and Infants Hospital is the primary teaching facility of the Brown University Department of Obstetrics and Gynecology, benefiting from the expertise of full-time faculty members representing all subspecialties. Women and Infants Hospital is located in inner-city Providence and is the primary obstetric hospital for low-income women. The neighborhood immediately adjacent to the hospital, South Providence, is an area noted for poor perinatal outcomes.

GOALS AND OBJECTIVES: Project LINK has four primary goals:

1. Increase the availability and accessibility of prevention, early intervention, and treatment services for substance-abusing pregnant and postpartum women and their infants;
2. Decrease the incidence and prevalence of drug and alcohol use among pregnant and postpartum women;
3. Improve the birth outcomes of women who used alcohol and other drugs during pregnancy and decrease the incidence of infants affected by maternal substance use; and
4. Reduce the severity of impairment among children born to substance-using women.

Project LINK is implementing the following project objectives:

1. Prenatal objective:
   a. Risk-assess 100 percent of patients enrolled in prenatal care at Women and Infants Ambulatory Prenatal Clinic and offer the comprehensive services of Project LINK to those patients determined to be at risk, based on substance abuse history, experience, and current needs.

2. Intrapartum objective:
   a. Assess 100 percent of all patients admitted to Women and Infants Hospital in labor with either (a) no prenatal care or (b) signs/symptoms of substance use, and offer the services of Project LINK to this population.
3. Family intervention objectives:
   a. Provide case management and early intervention services for infants born to women identified as using substances during pregnancy; and
   b. Provide case management and support to natural mothers and foster mothers of babies born to women identified as using substances during pregnancy.
4. Prevention objectives:
   a. Educate women at risk for, or engaged in, substance abuse regarding the consequences of substance use and the availability of assistance;
   b. Increase the knowledge of health care professionals in identifying and treating substance-abusing women and their infants; and
   c. Inform the community of the dangers of perinatal substance abuse and the resources available for treatment.

METHODOLOGY: Project LINK is designed to build on existing hospital and community resources to establish a comprehensive, coordinated management approach for substance-abusing women and their infants. The project intervention uses a multidisciplinary team approach as the framework for meeting project objectives. The five components of the program focus on: (1) Primary prevention, (2) pre-conceptional intervention, (3) prenatal identification and treatment, (4) postpartum identification and treatment, and (5) early identification and treatment of infants. Linkage to community resources will provide continuity of care and support.

Substance abuse treatment professionals with extensive experience in the techniques of intervention will be key members of the project team and will provide technical assistance to strengthen primary prevention efforts. Contractual arrangements have been made with one inpatient and one outpatient treatment facility to provide services for those project patients who require them.

A specialized early intervention component will provide services for affected infants, from birth through age 3 years. The case management of the mother and infant will include developmental assessment, parenting education, and home evaluations coordinated with community services. This will afford the opportunity for infants to achieve their potential despite the damaging sequelae of maternal drug use.

EVALUATION: The project will use both process and outcome evaluations. These will be accomplished through a contract with the National Perinatal Information Center and the Rhode Island Department of Health Data/Evaluation Unit.

The process evaluation will seek to thoroughly describe how the program was implemented and to identify whether it succeeded in providing coordinated substance abuse care to the target population. The process evaluation will have four components: Enrollment and treatment, staffing and linkages, education, and access. Data necessary for the process evaluation will be obtained by completing (1) patient record and service tracking documentation, (2) personnel task timesheets, (3) documentation and evaluation of educational programs, and (4) quantitative measures of enrollment and visits.

The outcome evaluation is designed to examine the project's impact on the incidence and prevalence of substance abuse and the pregnancy outcomes. Designated outcome measures will be compared between the population of women enrolled for prenatal care at Women and Infants Hospital and those enrolled in Project LINK. Multiple regression analyses will be used to sort out the program impact from impacts due to population differences.

EXPERIENCE TO DATE: Highlights of the first project year include successful recruitment, hiring, and orientation of staff; identification and occupancy of appropriate office space; development of protocols for service delivery; and collaboration with the National Perinatal Information Center on the design and implementation of a project evaluation plan. Pilot client services were implemented in January 1992, with full client enrollment beginning in May 1992. Clinical services being provided include individual counseling, family counseling, and therapeutic and educational groups. Case management services include a furniture and clothing bank, identification and access to community resources, parenting assessment, and education and home visits. All Project Link clients have an individualized care plan which includes identification of both clinical and nonclinical needs as well as plans to meet these needs. Infant developmental followup services are being provided to Project Link infants through the Infant Development Unit of Women and Infants Hospital.

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CSAP/MCHB
SP-02689
09/30/90–05/31/95
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PROBLEM: Substance use among the Yankton Sioux is mainly in the form of alcohol and cigarettes. According to Lamarine, the highest prevalence of drinking in the Native American population is among adults 25–44 years of age. In addition, observations of community activities and clinic and emergency room visits point to a very high incidence of drinking among adolescents in our area. These two age groups also encompass the childbearing years. Alcohol consumption during pregnancy is widely recognized as a risk factor for adverse fetal development. There is no established safe amount of alcohol intake for the fetus during the fetal and breastfeeding periods.

GOALS AND OBJECTIVES: The overall goal of this project is to promote and achieve substance-free pregnancies for Charles Mix and Gregory Counties as served by the Wagner Service Unit of the Indian Health Service. The project has established the following specific goals and related objectives:

Goal 1: Decrease the incidence and prevalence of drug and alcohol use among pregnant and postpartum women.

Objectives:

a. Decrease the rate of substance abuse among prenatal patients from 60 percent in 1989 to 55 percent by the end of year 3, 50 percent by the end of year 4, and 45 percent by the end of year 5;

b. Increase the self-esteem of women during pregnancy and during their infants' first 15 months of life;

c. Increase perceived availability of support for pregnant women and mothers of infants;

d. Increase the control of perceived stress by pregnant women and mothers of infants;

e. Decrease depression of pregnant women and mothers of infants;

f. Increase personal involvement of women with their pregnancies and newborns; and

g. Increase knowledge about the effects of personal behavior on pregnancy and infant health.

Goal 2: Improve the birth outcomes of women who used alcohol and other drugs during pregnancy and decrease the incidence of infants affected by maternal substance use.

Objectives:

a. Increase the rate of first trimester prenatal care from 62 percent in 1989 to 67 percent by year 2, 75 percent by year 3, 85 percent by year 4, and 90 percent by year 5; and

b. Decrease the rate of newborns weighing less than 6.5 pounds from 25 percent in 1989 to 23 percent by year 2, 20 percent by year 3, 15 percent by year 4, and 10 percent by year 5.

Goal 3: Decrease the severity of impairment among children born to substance-using women.

Objective: Increase the number of infants receiving well-child care from 45 percent to 55 percent by year 2, 65 percent by year 3, 80 percent by year 4, and 90 percent by year 5.

Goal 4: Increase the availability and accessibility of prevention, early intervention, and treatment services for pregnant and postpartum women and their infants.

Objectives:

a. Increase the number of pregnant and postpartum women and their infants keeping appointments to 90 percent by year 5.

b. Assure that 90 percent of prenatal clients receive eight or more prenatal clinic visits.

Goal 5: Promote the involvement and coordinated participation of multiple organizations in the delivery of comprehensive services for substance-using pregnant and postpartum women and their infants.

Objective: Improve communication between service components in order to improve services for pregnant and postpartum women and their infants.

METHODOLOGY: In the language of the Sioux, *mitakuye oyasin* means "all my relatives" and describes the value of a community commitment to substance-free pregnancies, the goal this project strives to achieve. This will be accomplished by developing a community/professional social support network of comprehensive services and will eliminate birth defects resulting from the use of substances during pregnancy. In addition, followup services to families for the first 15 months after the infant's birth will provide early detection of needs and provide treatment to prevent or ameliorate stresses that could harm a child during these vulnerable early months of life. This project, conducted by the Wagner Service Unit of the Aberdeen Area Indian Health Service, integrates existing services with a plan of comprehensive community-based care for all pregnant and postpartum women and their infants. To reach our program goals, the project implements the following activities:

1. Provide ongoing training for our team;
2. Take steps to identify pregnant women and enroll them in early and regular prenatal care;
3. Support women's efforts to avoid substances through education, home visits, and other supportive efforts;
4. Review client status in monthly team meetings;
5. Develop community education on the importance of early prenatal care, the effect of substances, and related issues;
7. Provide transportation to all prenatal/postpartum women and their infants; and
8. Provide followup within 1 week for all clients who miss clinic visits.

EVALUATION: Project evaluation will be based on five major components:

1. Quality assurance data: Taken from the hospital record, these data include patient's age, prenatal care, complications during pregnancy, baby's weight, Apgar scores, and related information.
2. Patient satisfaction data: Statements presented on the questionnaire will allow measurement of the subjective qualities of the core project staff.
3. Knowledge base data: These data will be used as part of the teaching interaction between the health educator and the client.
4. Patient contact data: These data will be taken from brief reports completed with each contact between client and project staff.
5. Mental health/social support data: These data will be taken from forms completed during each contact between client and project staff.

EXPERIENCE TO DATE: The following tasks have been accomplished during the second project year:

1. Education has been provided to communities, teams, and individuals.
2. Activities such as "Sober in October" have been set up to promote sobriety in our community.
3. Support and counseling are provided for those using substances.
4. Home visits are being made to prenatal/postpartum clients and their infants.

5. Transportation is provided for clients.
6. Child care services are provided during prenatal and well-baby clinics held weekly.
7. Incentives are given to encourage clinic visits.
8. Data are being gathered to evaluate the project.

Perinatal Care and Substance Abuse Prevention Project

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CSAP/MCHB
SP-02653
09/01/90–01/31/96
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PROBLEM: Of the youth in our country, Native Americans are the most at risk. The Pine Ridge Indian Reservation has an infant mortality rate of 33 infant deaths per 1,000 live births; a sudden infant death syndrome (SIDS) rate that is 3 times the national average; and an alarmingly high, but undocumented, number of children suffering from fetal alcohol syndrome and fetal alcohol effect. A majority of these problems are preventable, and in some way are directly related to the transition from the traditional Lakota or Sioux lifestyle and culture to the current lifestyle. A reiteration of the religious aspects of the culture needs to be incorporated into the present lifestyle in a holistic manner to address these problems.

GOALS AND OBJECTIVES: This project has three major goals:

1. Decrease the incidence and prevalence of drug and alcohol use among pregnant and postpartum adolescents;
2. Increase the availability and accessibility of appropriate prevention/early intervention services for pregnant and postpartum adolescents; and
3. Promote the involvement and coordinated participation of multiple organizations in the delivery of services for substance-using pregnant and postpartum adolescents and their infants.

The project objectives are to:

1. Implement a staffing pattern of seven personnel to deliver education and early intervention services;
2. Identify pregnant and postpartum adolescents and their children and engage them in a holistic prevention and early intervention program focusing on building protections and resiliency factors;
3. Develop a culturally based comprehensive, holistic prevention/intervention program for 100 percent of the identified population;
4. Network with six community and reservation agencies and programs to provide prevention and early intervention services;
5. Encourage 20 percent of clients to maintain active program participation including appropriate prenatal care and involvement in classes at the center;
6. Establish a network of approximately four adolescent mothers to serve as mentors for program participants and provide culturally relevant support; and
7. Establish a service provider network of six agencies to better coordinate efforts and pool resources and talents, thereby improving the availability and delivery of appropriate services to pregnant and postpartum adolescents and their families.

METHODOLOGY: A day care activity center will be established at a local high school to help adolescent parents by providing child care while they are attending high school. Adolescent parents will be required to attend class at the activity center for 1 hour per day. Classes will cover the following topic areas: Parenting skills, substance abuse, fetal alcohol syndrome and fetal alcohol effect, sudden infant death syndrome, and traditional childrearing.

Adolescent mothers who have been recruited to serve as mentors will help other adolescent mothers during the birthing process and adjustment to motherhood.

Elders will be utilized at the center to assist adolescent mothers with traditional parenting education. Family advocates provide counseling for families of adolescent mothers and refer adolescent mothers to other agencies when appropriate. A network of agencies located on the reservation will assist in providing services to the adolescents, their children, and their families.

EVALUATION: The project evaluation is structured to achieve the following goals, purposes, and outcomes: (1) Measure change(s) in the target population(s) as a result of the project; (2) provide bases for evaluations of the effectiveness of the project components; (3) provide bases for adjustments (improvements) in the content and delivery of the project components; (4) substantiate the delivery of project services as outlined in the approved grant proposal; and (5) provide for the dissemination of project procedures and outcomes to other agencies and entities for replication and implementation.

Alcohol and Substance Abuse Pregnancy Intervention Program

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CSAP/MCHB
SP-02010
07/01/90–06/30/95
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PROBLEM: The increase in cocaine abuse during the 1980s raised the medical community's awareness of the problems of chemical dependence and pregnancy. Health care professionals have experienced extreme difficulty in identifying and treating chemically dependent women who are pregnant. In addition, when such women are lacking in socioeconomic resources, their children are likely to experience mortality or significant developmental morbidity.

Experience in treating this population at Meharry Medical College has demonstrated, however, that a comprehensive approach to the problem of preventing chemical dependence during pregnancy results in better compliance and healthier mothers and infants. The provision of primary prevention, public health education, and a health care approach that provides treatment and followup for the chemically dependent mother and her infant increases the likelihood that this sector will be identified and treated.

GOALS AND OBJECTIVES: This demonstration project seeks to increase the number of drug-free pregnancies and deliveries among low-income women and produce healthier infants. To achieve this mission, the project has established goals to:

1. Increase the availability and accessibility of early intervention and treatment services; and
2. Coordinate the participation of a variety of community organizations in the delivery of a continuum of health services.

This project upgrades the preexisting Meharry Alcohol and Substance Abuse in Pregnancy (ASAP) Comprehensive Treatment and Case Management Program through the following objectives:

1. Expanding and training staff;
2. Developing chemical dependence treatment components to address the specific needs of pregnant women;
3. Coordinating access to 12 Federal, State, and private health and instrumental programs and services housed at Meharry Medical College;
4. Adding transportation and child supervision services;
5. Treating a minimum of 640 pregnant substance-using women and demonstrating a 75 percent drug-free delivery rate; and
6. Providing followup services for a minimum of 50 percent of the mother-infant dyads for 2 years.

METHODOLOGY: This project employs a multidisciplinary team of health care professionals. It provides coordination and case management for comprehensive chemical dependence treatment, obstetric/gynecologic health care, and child development services. Innovative features of ASAP are as follows:

1. Public awareness education by project staff through mass media, lectures, and workshops;
2. Coordination of utilization of Federal programs for the needy, such as Medicaid and the Special Supplemental Food Program for Women, Infants and Children (WIC);

3. Provision of a continuum of health services within one setting, from inpatient detoxification through developmental screenings and education-related placements for children through age 3 years; and
4. Provision of transportation and day care services for chemically dependent women.

EVALUATION: Process and outcome evaluations will be conducted. Data will be collected on the provision of services to the target population. Outcome evaluation data will be collected on the substance use status of chemically dependent women at birth, and perinatal data will be collected on their infants. Outcome comparisons will be made between women who participated in ASAP before delivery and chemically dependent parturients who did not receive ASAP services.

Coalition for Chemical Abuse Program to Serve Pregnant/Postpartum Women
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CSAP/MCHB
SP-03100
02/15/91–02/14/95
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PROBLEM: The need to identify and treat lower income pregnant and postpartum substance-abusing women in Dallas County is significant. A recent (1990) study of umbilical cord blood from a sample of women delivering at the Parkland Memorial Hospital revealed that 21 percent showed evidence of substance use shortly before delivery. Prior to the initiation of this project on behalf of 15 agencies, no system of services existed for the targeted women. Although outpatient treatment was advisable, there was no residential treatment available for pregnant women later in pregnancy or for postpartum women with infants.

GOALS AND OBJECTIVES: The goals of the project are to:

1. Attain and maintain the coordinated participation of multiple organizations in the delivery of service for lower income substance-abusing prenatal and postpartum women and their infants;
2. Increase the availability and accessibility of treatment services for lower income substance-abusing pregnant and postpartum women;
3. Decrease the prevalence of substance abuse among a subgroup of identified lower income pregnant and postpartum women;
4. Improve the pregnancy outcomes for a subgroup of women identified as abusing substances during pregnancy; and
5. Improve the birth outcomes for infants born to a subgroup of women identified as abusing substances during pregnancy.

Project objectives include the following:

1. Maintain an advisory steering committee of representatives of member agencies in the Coalition for Chemical Abuse Program, which will meet at least bimonthly and work toward maintaining the coordinated participation of the member agencies;
2. Maintain a functioning coordinated system of services (including problem identification, cross-referrals, case conferences, and feedback among the participating agencies) involving the member agencies in the coalition for those substance-abusing women who agree to enter the system of services for treatment of their substance abuse;
3. Maintain the contract with the Salvation Army for residential treatment services for pregnant substance abusers at any stage of pregnancy and for postpartum substance abusers with infants;
4. Make referrals for treatment within 1 day of the client's consent to enter the system of services, and ensure that each client is reviewed for acceptance into a treatment program within 3 days of referral;
5. Maintain a case management system which follows for 1 year identified substance abusers who have entered the system of services;
6. Identify annually 240 substance-abusing pregnant and postpartum women in the clinics selected for the demonstration project and in the Greater Dallas community, and invite them to participate in the system of services;
7. Facilitate 60 identified substance-abusing women annually into the system of services;

8. Ensure that 20 of the identified substance-abusing women who annually enter the system of services complete the course of treatment as defined by the treating agency;
9. Demonstrate a statistically significant decrease in the incidence and prevalence of maternal perinatal morbidity and mortality among those pregnant substance-abusing women who accepted the services of the project compared to identified pregnant substance-abusing women who opted not to accept the services of the project; and
10. Demonstrate a statistically significant decrease in the incidence of infant morbidity and mortality related to maternal substance abuse among those infants of pregnant substance-abusing women who accepted the services of the project compared to the infants of pregnant substance-abusing women who opted not to accept the services of the project.

METHODOLOGY: Substance-abusing lower income pregnant and postpartum women are identified to project case managers by staff of prenatal care, family planning, and low birthweight clinics, as well as community agencies that have contact with such women. Case managers offer and facilitate entry into the system of services (specifically including treatment), perform assessments, and assist with child care, transportation, and general medical care. The case managers continue to follow clients who enter the system of services for 1 year, providing linkages to services and ongoing support. A new resource in Dallas is residential treatment through the Salvation Army for women at any stage of pregnancy and for postpartum women with infants and other small children.

EVALUATION: Process evaluation includes data collection regarding case management as well as services by all members of the coalition. Interviews with a sample of patients and agency staff also are planned. Outcome evaluation will include (1) a quantitative comparison of project participants with other identified pregnant substance abusers who opted not to be project participants by choice, and (2) a quantitative comparison of infants born to project participants with infants born to other identified pregnant substance abusers who opted not to be project participants.

EXPERIENCE TO DATE: The project, which has been active for 22 months, is staffed by a project manager, a senior case manager, a case manager, an evaluation director, an epidemiologist, and an evaluation assistant. The project is guided by an advisory steering committee composed of representatives of member agencies in the coalition.

To date, 107 substance abusers have received case management services. A total of 44 women have accepted treatment and other services, and 23 women currently are considering treatment.

A self-administered screening questionnaire for women obtaining pregnancy tests has been developed, as has a client contract for those entering treatment. A pamphlet has been designed, printed, and disseminated to clinics, warning of the dangers of substance abuse to a developing fetus. Data and evaluation instruments have been developed for the project.

Education/Intervention Services for Minority Adolescents
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CSAP/MCHB
SP-04674
05/01/92–04/30/97
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PROBLEM: The Healy-Murphy Center, Inc., is a private, not-for-profit alternative school for adolescents in crisis, owned and operated by the Sisters of the Holy Spirit, in San Antonio, Texas. The center's student body includes 240 pregnant and/or parenting adolescents and 50 adolescent boys referred from other alternative schools or from the Bexar County Juvenile Probation Department. Most of these adolescents, ages 14–18 years, are Mexican American or African-American. The center also operates a federally subsidized day care center for 108 infants and children. These urban adolescent parents and students come to the center with histories of chronic school failure, family and peer substance abuse, and mental health problems. Two-thirds of the students do not live with their parent(s).

Surveys indicate that these students use substances, including illicit ones, at a much higher rate than students in the public school system or in the State as a whole. More than 25 percent report using substances during their current or most recent pregnancy. Research and the experience of the Healy-Murphy Center staff predict that these adolescents are at high risk for continued substance abuse, dropping out of school, and high lifetime unemployment. In addition, the children of these adolescents are at risk for experiencing developmental delays attributable to their parent's age and/or substance use.

GOALS AND OBJECTIVES: This project's two primary goals are to:

1. Decrease the incidence and prevalence of drug and alcohol use among pregnant and postpartum adolescents; and
2. Reduce the severity of impairment among children born to substance-using adolescents.

The project has identified the following objectives for the first year of the project:

1. Students for whom there are complete pretest and posttest measures, and who are using or at high risk for using alcohol and other drugs, will significantly reduce their drug use. All 290 students will receive drug education/prevention.
2. Students referred for intensive case management will be enrolled and attending school.
3. Students will complete job readiness training, find employment, and retain employment for a minimum of 3 months.
4. Ill students and their children will be assessed for health care deficits and will receive appropriate treatment and followup.
5. Pregnant and/or parenting students who participate in the child development curriculum will demonstrate targeted parenting skills.

METHODOLOGY: The project is a collaborative effort involving the Healy-Murphy Center, Inc., and the Community Pediatrics Program of the Department of Pediatrics, The University of Texas Health Science Center at San Antonio. The program staff will enhance existing educational services by providing outreach and case management, substance abuse education and prevention, enhanced parenting skills, job readiness and placement, onsite medical care for ill infants, and developmental assessment and intervention for the infants and their mothers.

At registration, students and their parents sign consent forms permitting the Healy-Murphy staff to assess the cognitive, psychological, and substance use status of each student and to test the infants in the child care center for developmental delays. Adolescents experiencing personal or academic problems are referred by teachers or other students or are self-referred to two full-time, bilingual case managers. The case managers further assess the problem, conduct a home visit, and develop a care plan. Implementation of the care plan is coordinated with community mental health and substance abuse treatment providers, the San Antonio Housing Authority, or other community support services as required. Students are offered job readiness training using a curriculum developed by the San Antonio YMCA as an elective. The vocational case manager has enlisted more than 50 companies and local businesses to accept students in part-time employment opportunities. Project staff are working with the parenting teacher to integrate the Nurturing Program for Teenage Parents and their Families (S. Bavolek and J. Delinger-Bavolek, 1988) into the curriculum. Moreover, the program staff are assisting every Healy-Murphy teacher to develop substance abuse prevention/education modules based on the Texas Educational Agency's "Education for Self-Responsibility II: Prevention of Drug Use," to be integrated into the standard curriculum. The Community Pediatrics Program's developmentalist, nurse, and educational specialist are working with the staff of the Healy-Murphy Center's child care center to identify infants in need of intervention services because of parental substance use or infant developmental delay and to develop staff training for the child care staff in an effort to increase the quality of service delivery.

EVALUATION: A process and outcome evaluation is being used. The initial pretest and posttest design will be expanded to include a comparison group in year 3 of the project. Instruments being piloted with this target group of high-risk adolescents and their infants include the Hare Self-Esteem Questionnaire, the Brief Symptom Inventory, the Shipley Institute for Living Scale, the Personal Experience Screening Questionnaire, and the Tennessee Self-Concept Scale. The Bayley Scales of Infant Development assessment is used for children ages birth to 2 years. Outcomes of interest include reduction or elimination of substance use, retention of the adolescents in school, and achievement of developmental milestones by the infants.

EXPERIENCE TO DATE: The project is fully staffed and all initial assessments have been completed as of September 1992. Comprehensive case management services have been provided to 14 youth to date. Project staff have participated in a national training session on preventing the consequences of perinatal abuse of alcohol and other drugs.

Maternal Substance Abuse Project
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CSAP/MCHB
SP-01632
02/01/90–01/31/95
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PROBLEM: Substantial information exists on the negative impact of alcohol and other drugs. However, relatively little emphasis has been placed on such data for Mexican-American populations. Little is known about the manner in which subcultural values and perceptions affect ethnic group substance use during pregnancy or about the impact of social class within the cultural context. Illicit drug use in the United States is a mounting problem which pervades all of society, including women of childbearing age. It is estimated that 30 million people in the United States have used cocaine, 5 million of whom use it regularly.

Between 200,000 and 300,000 women are addicted to narcotics; of these, 5,000–10,000 annually will give birth to children. Seventeen percent of all pregnant women in one study had a history of cocaine abuse. Obstetric and neonatal complications are common in women with a history of drug abuse and in their offspring. A decreased pregnancy rate, a 5 percent increase in fetal wastage, a fourfold increase in neonatal deaths, and a threefold increase in perinatal deaths are among the problems that have been described.

GOALS AND OBJECTIVES: The project has identified the following goals and related objectives:

Goal 1: Increase the availability and accessibility of prevention, early intervention, and treatment services for pregnant women who use alcohol and other drugs.

Objective: Increase by a minimum of 10 percent over the project period the number of participating pregnant and postpartum women completing a treatment program by conducting a psychiatric/ psychosocial assessment with appropriate referral and followup to treatment services.

Goal 2: Improve the birth outcomes of women who used alcohol and other drugs during pregnancy and decrease the incidence of infants affected by maternal substance abuse.

Objectives:

a. Recruit a minimum of 300 program participants over the project period by screening pregnant women from San Antonio Metropolitan Health District clinics and other agencies;

b. Increase prenatal care participation of substance-using pregnant women by providing case management and related services; and

c. Improve health behaviors/life skills by engaging prenatal program participants in psychoeducational groups.

Goal 3: Reduce the severity of impairment among children born to substance-abusing women.

Objectives:

a. Improve the health status of all infants born to substance-abusing women enrolled in the project by providing case management and related services;

b. Increase the percentage of pediatric developmental interventions for infants of substance-abusing women enrolled in the project; and

c. Improve health behaviors/life skills by engaging postnatal program participants in psychoeducational groups.

METHODOLOGY: Implementation of this approach includes four components: (1) Screening of prenatal patients for substance use and development of a data base; (2) prenatal intervention; (3) postnatal intervention with mother-infant pairs (through the third year of life of the child); and (4) evaluation to include developmental assessment of the child using the Bayley Scales of Infant Development, mother-child bonding, and treatment outcomes for mother and child.

Prenatal visits for project participants will follow accepted medical standards for prenatal care, with the addition of any care indicated for conditions secondary to substance abuse. Most patients will be followed at the Bexar County Hospital District's Complicated Obstetrics Clinic.

Psychoeducational groups are offered biweekly to both prenatal and postnatal participants. These supportive and educational groups are cofacilitated by the program coordinator and consulting psychiatrist. The psychiatrist administers a psychosocial evaluation to all patients as well.

At the time of delivery, the case manager will visit the mother and newborn in the hospital to offer support, to observe and evaluate the initial mother-child interaction, and to arrange for a postpartum home visit.

A hospital visit will also be made, if possible, to those mother-infant pairs who are referred to the project postdelivery. The case manager will explain the project to the new mother and offer support. At 6-month intervals, the home environment will be objectively assessed utilizing the Nursing Child Assessment Satellite Training (NCAST). Standard well-child clinic visits will be scheduled at 2 weeks; at 2, 4, 6, 9, 12, 15, and 18 months; and at 6-month intervals thereafter until the child is 3 years of age. Routine medical care, anticipatory guidance, and immunizations will be provided, with particular attention paid to engaging the mother.

EVALUATION: The evaluation plan for this project includes both process and outcome elements. The evaluation design employs a time-series procedure with the mothers and their children in which subgroup comparisons are planned. Most outcome data will be collected using existing instruments. For some data needs, however, the project has refined existing data collection instruments or developed new ones. This has occurred with the substance abuse screening interview (SARAH). Data analysis will be accomplished using the EPI-INFO software program and will employ correctional analysis of variance and discriminate analysis procedures.

EXPERIENCE TO DATE: As of September 25, 1992, 128 mothers enrolled in the project. As of this date, there are 96 mothers and 94 target children on the case load. Psychiatric evaluations providing insight into patient needs and opportunity for treatment referral have been completed on 69 patients. Ongoing communication is occurring with local treatment facilities to secure memorandums of agreement for treatment slots; five agreements have now been secured. Psychoeducational groups are occurring weekly, covering a variety of topics relating to substance abuse, parenting, and mental health.

Home and hospital visits are provided to all patients and their children. In addition, visits to the county jail and to chemical dependence treatment facilities are provided as needed. Infant birth data are gathered and tabulated. Case management services are tabulated, including case reviews, home visits, urinalysis, group therapy, phone calls, clinic visits, referrals, and intervention. Transportation is being provided via bus tokens and taxicab service to and from group sessions and clinics (prenatal, well-baby, and sick-child). Immunizations are monitored and provided at home, if necessary. Communication has been developed with Child Protective Services and early development and intervention programs to provide support to the families.

Mom and Baby—Drug Free—For the Health of It

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CSAP/MCHB
SP-02240
07/01/90–06/30/93
Project Director(s):
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PROBLEM: Approximately 6,000 babies are delivered each year at Tarrant County Hospital District. More than 600 of these babies are treated in the Neonatal Intensive Care Unit, with half of them showing significant signs of maternal drug use. Drug treatment opportunities for poor women in the county are virtually nonexistent. The infant mortality rate in the target neighborhood is 16.2, compared to the national average of 9.2 per 1,000 live births.

GOALS AND OBJECTIVES: The goals for the program include: (l) The creation of an effective consortium of agencies providing a continuum of prevention, intervention, and treatment services for low-income women; (2) implementation of a drug and alcohol education program which will reach 75 percent of the obstetric patients in the target area; (3) a case management program which will provide intervention and treatment opportunities for 100 women and their babies; and (4) a reduced level of impairment among children of these mothers, demonstrated by improved birthweight and developmental scores when compared with children who are not program participants.

The project objectives include the following:

1. A consortium of 11 agencies, lead by Tarrant County Hospital District, will meet monthly to collaborate on providing medical, social, and drug abuse services to substance-abusing pregnant and postpartum women and their infants in the target area;
2. Educational classes on the dangers posed to the fetus by drug abuse will be provided to 75 percent of the women seeking obstetric care at the model project site;
3. A choice of two case management programs will be provided for obstetric clients who voluntarily elect to participate in them; and
4. Babies born to substance-abusing mothers in the case management programs will have higher average birthweights than nonparticipating babies and will have fewer admissions to the Neonatal Intensive Care Unit for drug-related complications.

METHODOLOGY: The Mom and Baby—Drug Free—For the Health of It project is a prevention, intervention, and treatment model project located in Fort Worth, Texas. A consortium of 11 agencies, led by the Tarrant County Hospital District, will join forces to provide a continuum of care for target area low-income pregnant women and their babies through the first year of life. The model project, based in the Polytechnic Community Clinic, will offer drug education to an estimated 650 women receiving obstetric services annually at the clinic. Two certified alcohol and drug abuse counselor (CADAC) nurses will enroll 100 of the women into the case management component of the program. The case manager for Track A participants will refer the pregnant women individually to consortium members for such services as detoxification, drug therapy, survival skills for women, parenting education, and medical treatment. Track B participants will be grouped at the clinic, where consortium services (except detoxification) will be available. Women and children will receive a variety of incentives for participating in the program.

EVALUATION: The evaluation plan consists of two phases of data collection and analysis. The initial phase consists of process evaluation focused on two components of the project: (I) The consortium, and (2) Track A and Track B program services. The evaluation procedure will include a number of instruments administered at different stages of each woman's program participation.

The second phase is outcome evaluation, consisting of qualitative and quantitative analysis. The qualitative analysis will result from onsite visits with staff members of the consortium agencies and discussions with case managers concerning the collaboration, effectiveness, and problems of the program. The information obtained for evaluative purposes will be discussed at monthly consortium meetings. An annual report will be used to (1) assess the degree of cooperation and effectiveness of the several community agencies in attacking a community problem, and (2) make recommendations for the second and third project years.

EXPERIENCE TO DATE: The project director, coordinator, and four case managers have been hired. Three case managers are CADAC certified and the other is scheduled to receive certification. Staff have been trained to administer the Substance Abuse Subtle Screening Inventory (SASSI). A case management program has been established and is operational. Additionally, an intensified ongoing promotional program has been initiated to stimulate program enrollment.

Project MOM: Drug Counseling for Childbearing Women

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CSAP/MCHB
SP-01162
07/15/90–04/30/95
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PROBLEM: Drug-abusing pregnant women arrive at Houston public hospitals just in time to deliver, having received little or no prenatal care. They leave the hospital within 24 to 48 hours, sometimes leaving the baby behind to be cared for by relatives or foster parents.

The high-risk infants born to drug-abusing mothers are assigned to the high-risk perinatal clinic, but less than 40 percent of the babies return for checkups.

GOALS AND OBJECTIVES: The goal of Project MOM is to decrease the incidence of drug and alcohol addiction among low-income women patients of Ben Taub Hospital through a comprehensive counseling and education program.

The objectives of the program are to:

1. Increase awareness by 1,000 female patients of the health consequences to themselves and their infants resulting from abuse of alcohol, intravenous drugs, or other drugs;
2. Refer 750 drug-abusing patients to 12-step programs, outpatient programs, or residential treatment programs;
3. For 200 patients, utilize 4 hours of inhospital and waiting room time for counseling to ascertain results of counselor recommendations and to reinforce previously received drug, HIV, and other health care information; and
4. Work with hospital social workers to provide referrals to relevant social and health services required by the mother and the child.

METHODOLOGY: Project MOM will provide alcohol and other drug education and counseling for pregnant and postpartum women seeking services through maternity and neonatal clinics at large public hospitals.

Educational presentations will be made on a regular basis in the waiting rooms of the high-risk maternity and neonatal clinics and on the maternity wards at Ben Taub Hospital. Following these presentations, certified alcohol and drug abuse counselors will counsel patients who indicate a willingness to seek solutions for the addiction problems within their family system. Incentives are provided for women to return to the high-risk pediatrics clinic for follow-up. Age-appropriate toys are provided for the children, and small gifts such as toiletries are given to the mothers. The counselors also telephone the mothers the day before their appointment to remind them of their appointment time and to schedule while they wait for their pediatric visit. Cooperation and coordination have been established between the nurses and counselors to followup with women who do not keep their appointments.

The counselors will work closely with the hospital social workers to alleviate barriers to treatment for the patient, her children, and other family members. Working together, they will locate appropriate treatment and other services in the most timely manner possible. Availability of treatment for pregnant and postpartum women has improved since the outset of the program. The Center for Substance Abuse Treatment (formerly the Office of Treatment Improvement) funded the Houston Recovery Campus which opened in May 1992. This program opened in stages, and the first programs addressed the needs of outpatients and day patients;

inpatient programs for adults, mothers and infants, and adolescents opened in August 1992. There are 15 beds for mothers and their infants. The New Life Program at the Shoulder, Inc., a residential program for mothers and their newborns, opened in September 1992. This program will serve an additional eight women. While this is an improvement in treatment availability, services are still lacking to meet the needs of this medically indigent population.

Counselors will work with hospital social workers and other community resources to assist patients in obtaining Medicaid, transportation, child care, and food stamps, and to solve other existing problems which may affect the successful maintenance of a drug-free lifestyle.

EVALUATION: An experienced evaluator has been hired to develop instruments to measure process and outcome objectives. The instruments have been revised and computerized, and the data are being cross-tabulated to determine traits of those women who seem to be most capable of developing sustained sobriety. Stakeholder interviews are also being used to determine the effectiveness of the services provided.

EXPERIENCE TO DATE: Staff have been in place since July 1990. Good rapport has been developed with the medical staff and social work department in the hospital, as well as with treatment providers who work specifically with pregnant and postpartum women. A new Special Moms clinic which treats high-risk pregnant women who are on probation has given our counselors access to high-risk women before they deliver. Our counselors now have several opportunities to talk with these women prior to delivery as well as after delivery and during pediatric clinics. More of our clients are returning voluntarily to the hospital to see our counselors and to ask for referral to treatment.

We continue to have considerable difficulty tracking clients, but there is some possibility that the city and county health departments and the county hospital district will merge into one health care system in the future. This would greatly facilitate our ability to track patients who are often lost when they move from one system to another. In addition, we are working to place a counselor in each of the city and county health department clinics to further facilitate tracking, to provide a greater continuum of care, and to intervene with and have access to these high-risk women earlier in their pregnancies.

Prevention Through Treatment for Women and Children

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CSAP/MCHB
SP-04711
05/01/92–04/30/97
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PROBLEM: The problems associated with maternal drug abuse are multifaceted. Women who use narcotics during pregnancy increase their risk for first trimester spontaneous abortions, premature delivery, and maternal/neonatal infections, including venereal diseases. Cocaine can cause hyperactivity of the fetus, vasoconstriction, tachycardia, and uterine contraction (Chasnoff, 1991), while alcohol and its metabolites may impact upon the growth and development of the embryo and fetus (Jones and Smith, 1973). Estimates of fetal alcohol syndrome vary; however, Abel (1984) indicates that among alcohol-dependent women, the rate may be as high as 25 cases per 1,000 live births. Other issues involving maternal substance abuse include poor parenting skills, neglect, abuse, lack of vocational training, and lack of proper health care. Effective intervention is imperative for the well-being of both mother and infant.

Services for substance-abusing women and their infants are lacking at the present time. Most residential substance abuse programs do not allow mothers to bring their infants with them to treatment. Hence, this is a barrier to treatment and contributes to the low percentage (11 percent) of pregnant addicts entering treatment (Toufexis, 1991). Additionally, there is no organized system to aid these women in receiving the necessary services. Fairfax County needs an alcohol and drug treatment system that addresses the special needs of substance-abusing women and their infants.

GOALS AND OBJECTIVES: This project has five primary goals:

1. Promote involvement and coordinated participation of multiple organizations in the delivery of integrated, comprehensive services for alcohol- and drug-abusing pregnant and postpartum women and their infants;
2. Increase availability and accessibility of prevention, early intervention, and treatment services for pregnant and postpartum women and their infants;
3. Decrease the incidence and prevalence of drug and alcohol use among pregnant and postpartum women;
4. Improve birth outcomes of women who use alcohol and other drugs, reduce infant mortality, and decrease the incidence of infants affected by maternal substance use; and
5. Reduce the severity of impairment among children born to substance-using women.

The project objectives are to:

1. Establish an advisory group composed of representatives from public/private health and social services organizations and develop and implement a system for communicating information on substance-abusing pregnant and postpartum women and their infants to the professional community and the community at large;
2. Increase accessibility and utilization of available medical and social services by pregnant and postpartum women and their infants;
3. Open a residential substance abuse facility for pregnant and postpartum women and their infants and maintain at least an 85 percent occupancy rate;
4. Reduce drug and alcohol use and criminal justice involvement at followup for women with a history of substance abuse;

5. Improve parenting skills and increase the psychosocial well-being of women with a history of substance abuse;
6. Increase by 70 percent the rate of infants (born to women in the residential facility) who have normal Apgar scales, weight, length, head circumference, and negative drug/alcohol screens at birth; and
7. Promote children's ability to meet developmental tasks within the normal range and enhance the mother-child relationship.

METHODOLOGY: The project focuses on two major areas: Establishing the position of outpatient women's coordinator, and opening a residential substance abuse program for women and their infants. The outpatient coordinator will be involved in prevention, education, and coordination of issues involving substance abusing pregnant and postpartum women and their infants. The coordinator will also address methods of reducing barriers to treatment in order to encourage more women to enter treatment.

The residential substance abuse treatment program will accept both pregnant women and women with infants. While in the program, a holistic approach to substance abuse treatment will be used to meet the needs of clients. Issues involving parenting, mental health, child care, prenatal and postnatal care, job search, vocation selection, and financial management issues will be addressed in addition to substance abuse treatment. There will be an extensive continuing care program to aid mothers in their reentry into the community. The residential program will serve approximately 20–25 clients per year and will strive to meet the stated objectives.

EVALUATION: Evaluation is seen as an important part of the project. Therefore, an extensive evaluation plan was developed by researchers at The Catholic University of America. The evaluation will include both process and outcome procedures.

EXPERIENCE TO DATE: As of November 1992, the outpatient women's coordinator and the director of the residential program have been hired. The Women's Advisory Group has been formed and the first meeting has taken place. All activities needed to open the residential program have been initiated. The residential program was scheduled to open by late January 1993.

Drug-Exposed Babies and Their Mothers: Birth to 3 Years

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CSAP/MCHB
SP-02897
03/01/91–02/29/96
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PROBLEM: The Birth to 3 Years project has developed an advocacy model to enable communities to respond, through outreach and advocacy, to the postpartum needs of mothers who have abused alcohol and other drugs during pregnancy and to the needs of their infants, who are often at high risk for severe physical, developmental, and emotional impairment. The mothers were recruited by community referral as well as at the hospital delivery site, since this is the only point at which some chemically dependent women have contact with health care providers. These women often receive little or no prenatal care; they have fallen through most community safety nets.

GOALS AND OBJECTIVES: The goal of the advocacy model is to assist postpartum women who abuse alcohol and other drugs in identifying their own strengths and needs and moving toward a healthy, independent, and drug-free lifestyle and parenting role. The model is designed to work with ethnically diversified, inner-city women from the birth of their infants through the infants' third birthdays. The advocacy model will achieve the following objectives:

1. Recruit mothers;
2. Provide outreach and family advocacy to individualize mother and infant needs, set goals, and obtain necessary community services;
3. Involve multiple agencies to provide existing services;
4. Reduce barriers to substance abuse treatment;
5. Reduce severity of impairment among children exposed to alcohol and other drugs during pregnancy; and
6. Evaluate the process of project implementation and the outcomes of intervention for the mother and baby, and produce an advocacy manual that will enable other communities to implement an advocacy model.

METHODOLOGY: The clients (N=65) will include women who are alcohol or drug dependent, have received little or no prenatal care, and are not connected with community support services. They are recruited in the hospital using our Hospital Screening Questionnaire (HSQ) or are referred from the community. The intake interview includes substance abuse and social history, demographics, and an assessment of both strengths and needs.

The mother and infant are assigned to an advocate who will provide ongoing support and linkage to appropriate community resources for 3 years. Obtaining drug treatment, routine maternal and infant health care, and parenting skills will be emphasized.

The advocacy model itself offers no structured programs for the women since it is designed to use those community resources that are available and appropriate for each woman on an individual basis. The role of the advocate is to assist the woman in identifying her short- and long-term goals and help her take the steps necessary to achieve those goals, using her own community resources.

EVALUATION: A pregnancy drug use survey is conducted daily on postpartum units at two high-risk hospitals using the Hospital Screening Questionnaire for purposes of (1) providing self-report drug prevalence reports to the community, and (2) recruiting women for the Birth to 3 Project. Outcome evaluations for the infants are conducted at four clinical followup visits at 4, 12, 24, and 36 months of age. Infants are assessed using the Movement Assessment of Infants, the Bayley Scales of Infant Development, the Stanford-Binet Intelligence Scale, and the MacArthur Language Inventory; maternal and infant medical records are abstracted. Mothers are interviewed at intake and at followup clinic visits regarding substance abuse, home environment, service utilization, and goal attainment. Maternal outcome evaluation scales include the Beck Depression, Silencing the Self, Social Support, Shipley Institute of Living, and Difficult Life Circumstances (part of Nursing Child Assessment Satellite Training—NCAST). Two comparison groups (N=65), which receive no advocacy intervention, will be utilized to measure effects of the advocacy model.

EXPERIENCE TO DATE: Five advocates have been hired and trained, and 65 clients and 33 comparison group members have been enrolled from July 1, 1991, to December 31, 1992 (60 percent of these were from community referrals). Office space is now located in a neighborhood where many clients live. Formal agreements have been established with approximately 40 primary community service providers. Key agency representatives attend advocate staff meetings to discuss service provision and barriers and to negotiate solutions. Project staff, in turn, provide inservice training to agencies, representing the concept of interagency communication and working together for the benefit of women and children at risk. Advocates participate in a citywide support group for outreach workers to share resources and experience and to avoid burnout. An article on the prevalence of drug use during pregnancy using our HSQ instrument was published in the *American Journal of Obstetrics and Gynecology*.

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CSAP/MCHB
SP-03056
03/01/91-02/28/94
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PROBLEM: Pregnant women who use drugs raise major concerns. Communities struggle with spiraling intervention costs, ineffective treatment programs, and concern for the future of these women and their children.

In Snohomish County, local concerns about substance use mirror national trends. In addition, Snohomish County is at risk for increased substance use among pregnant women because of the several problems including: (1) The tremendous population growth within the county, and (2) the number of births within the county, which have increased at an even greater rate than the population as a whole. The State of Washington experienced a 6.8 percent increase in births from 1980 to 1989. Snohomish County experienced a 29.3 percent increase in births during the same period.

Almost 35 percent of women referred to the Snohomish Health District have abused substances at some time during their pregnancy or were abusing substances at the time of referral. This figure exceeds the State projection of 20 percent. Substance-related problems have limited the success of traditional public health nursing interventions. Nurses lack the training to deal effectively with substance-related problems, and their caseloads are too large for them to devote the time required to work effectively with these women. In addition, it has been very difficult to convince these women to access treatment. The reasons are multiple, and the project has had only a 10 percent success rate in enrolling these women in treatment.

GOALS AND OBJECTIVES: The project goals are to:

1. Promote the involvement and coordinated participation of multiple organizations in the delivery of comprehensive services for substance-using pregnant and postpartum women and their infants;
2. Increase the availability and access to prevention, early intervention, and treatment services for these populations;
3. Decrease the incidence and prevalence of drug and alcohol use among pregnant and postpartum women;
4. Improve the birth outcomes of women who used alcohol and others drugs during pregnancy and decrease the incidence of infants affected by maternal substance abuse; and
5. Reduce the severity of impairment among children born to substance-using women.

The project objectives are to:

1. Increase participation by substance-using pregnant women in prenatal care and drug treatment to reduce labor and delivery complications;
2. Reduce infant complications immediately following birth and in the first year of life;
3. Decrease maternal and infant birth complications through reduced maternal drug use;
4. Reduce the number of referrals to Child Protective Services; and
5. Improve parenting skills of substance-using pregnant and postpartum women.

METHODOLOGY: During the 3-year funding period, the project will enroll and evaluate approximately 100 women. Project access will be through First Steps, a statewide program which provides maternity care to low-income women below 185 percent of the Federal poverty level. The criteria for entry into the program will begin with pregnancy prior to 28 weeks gestation and continue through the infant's first year of life. To evaluate program effectiveness, women are randomized to receive the services of either the Special Intervention Team or public health nurses. The Special Intervention Team is composed of public health nurses, a drug and alcohol counselor, a social worker, and restorative aides.

The process evaluation will compare the frequency of visits by the Special Intervention Team to the number of visits for women served traditionally by public health nurses. In addition, we will be comparing the two approaches to case management in terms of frequency in addressing specific topics, including basic needs, health care, drug/alcohol abuse, mental health issues, promotion of educational goals, and child care information. At 32 weeks' gestation, women receiving the services of the Special Intervention Team will be randomized with equal frequency to continue the services of the Special Intervention Team with or without the additional services of a restorative aide These aides are available to teach and support the new mother with parenting and home management techniques. These aides are also available to assist with needed resources. The performance of the restorative aides will be evaluated using a checklist of items describing their activities.

EVALUATION: To evaluate the outcome of the study, women receiving Special Intervention Team services will be compared to women receiving case management by the First Step Program in the following areas: (1) Entry into chemical dependency treatment programs during pregnancy, (2) continued use of drugs and alcohol during pregnancy, (3) access to and use of prenatal care, (4) pregnancy complications during labor and delivery, (5) drug use after delivery, (6) access and use of pediatric care for their infants, (7) referral to a child protection agency, (8) the mother's techniques in interacting with her infant, and (9) the infant's physical growth and growth milestones.

Each client's drug and alcohol use is assessed by interview and urine drug screen at the enrollment visit and again at several intervals throughout the project. The infant's physical growth will be assessed by measurements performed by the public health nurses at regular intervals. The infant's growth milestones will be assessed by the Minnesota Infant Development Inventory, performed at 10 months of age. Several scales—including the Adult/Adolescent Parenting Inventory, the Nursing Child Assessment Satellite Training (NCAST) Feeding Scale, the NCAST Home Observation for Measurement of the Environment (HOME) Scale, and the NCAST Teaching Scale—will be performed during the 1-year followup period. These scales and inventories are being used to assess the effectiveness of the restorative aides and the Special Intervention Team in changing the mothers' parenting attitudes, skills, and ability to reenter the community.

EXPERIENCE TO DATE: The project is in full implementation during the second year. Cross-training of the multidisciplinary team has been completed. This synergistic, interactive team currently provides in-home services to 40 clients on a weekly basis. Case conferences are held weekly on all clients to determine an individual service plan, select the appropriate person for the home visits, and examine needed resources and project commitments. Individual clients who have been with the project for a while are invited to attend a case conference, where the client actively participates with the team in planning issues to be addressed (including strengths).

A satisfaction questionnaire has been developed and distributed to clients at 2 months postpartum and at completion of the program.

The project has implemented two support groups, outgrowths of the project. Mom's Day Out provides a place for the women to make new friends who are also struggling with similar issues through enjoyable activities that enhance creativity and self-esteem. This group is facilitated by the restorative aides and meets monthly at a local church with child care provided. The second group, Connections, is a pretreatment group facilitated by the drug/alcohol counselor. This group.meets weekly (except the week of Mom's Day Out) at a local treatment agency which provides child care.

The restorative aides are a major asset to the program, particularly when they are allowed to work with clients in all spheres, not just in transportation or child care. Their contribution of time is their strongest

asset, especially when clients are in crisis. The aides are able to relieve the professionals of some of the details involved in following through on resources that clients may require. In many instances, the aides are able to establish a close rapport with the clients more easily than the professional staff.

During our 2 years of experience in this program, we have found that housing is the key to client stability and self-esteem. The social worker is in charge of assisting clients with these services.

Spokane Family Success Project
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CSAP/MCHB
SP-02750
09/01/90–05/31/95
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PROBLEM: Substance-abusing pregnant and postpartum women and their infants experience numerous medical, psychological, and emotional problems. The fragmentation of traditional health care and social/human service providers has resulted in decreased client access to service, increased incidence of relapse into substance-abusing behavior, negative birth outcomes, and increased impairment of infants born to substance-abusing mothers.

GOALS AND OBJECTIVES: This project has four goals:

1. Promote the involvement and coordinated participation of multiple organizations in the delivery of comprehensive services to recipients and their infants;
2. Decrease the incidence and prevalence of drug/alcohol use in pregnant and postpartum women;
3. Improve birth outcomes and reduce the incidence of drug-affected infants; and
4. Facilitate the healthy development of children born to substance-abusing mothers through improvements in family functioning.

The project objectives are to:

1. Establish an interagency advisory council to assure effective coordination of project activities, and a consumer advisory board of former substance-abusing mothers to advise on service coordination and delivery;
2. Establish an integrated, collaborative case management process involving each family and all agencies providing services to program families;
3. Facilitate access to community organizations filling basic family needs, including housing, health, nutrition, clothing, and income support; and
4. Provide coordinated, comprehensive prenatal and postpartum health care services for program recipients; child development services for infants, toddlers, and their siblings; and parent education in family development, life skills, and social and economic self-sufficiency.

METHODOLOGY: The Spokane Family Success Project, a program of the Spokane County Health District, coordinates the delivery of intensive services which reduce substance abuse and its negative effects among low-income pregnant and postpartum women and their infants through an interagency, multidisciplinary continuum of care which incorporates effective case management, from assessment through the transition to independent living.

This project will provide the in-home services of a public health nurse and a social worker who will assess recipient needs, lead the interagency case management process, monitor progress, facilitate and broker services to families, advocate for recipients, and provide interim services when needed.

To reach our program goals, we will:

1. Develop and case manage a collaborative interagency process for human service care providers to meet recipient needs, implement a feedback referral system, and facilitate rapid exchange of information between service provision agencies;
2. Identify and engage substance-abusing pregnant women in the program;
3. Provide coordinated comprehensive prenatal and postpartum health care services for program recipients through home visits and utilization of existing community services;
4. Coordinate and provide client assistance and training in budgeting, housekeeping, accessing transportation, time management, and other life skills; and
5. Develop and implement a comprehensive health care and developmental assessment system for infants of mothers enrolled in the program.

EVALUATION: Statistical Process Control will be used to identify performance and quality issues which will be addressed immediately and to identify problems which require adjustment of the system. It is then both an aspect of process evaluation and a means of continual quality improvement. Outcome evaluation measures outcomes (i.e., reduced maternal substance abuse, improved birth outcomes, increased access to social and human services, and healthy development of children born to substance-abusing mothers) of program participants and a comparison group. The comparison group is composed of pregnant substance abusers who do not accept referral into the program from one of the four referral sources.

EXPERIENCE TO DATE: Staff have been trained in Statistical Process Evaluation techniques, assessment tools, substance abuse education, Nursing Child Assessment Satellite Training (NCAST), and special needs of ethnic and other minority populations. Project evaluators (process and outcome) and staff have collaboratively designed the service provision system and evaluation components of the program. Implementation of the program began in March 1991. Established evaluative instruments have been implemented. Forms have been developed which facilitate the interagency collaborative dissemination of information and increase access to community service provision. An interagency advisory board has been selected and is functioning to address program issues. A consumer advisory board, composed of women who were former substance abusers while pregnant, continues to offer input on service provision and techniques to address the special needs of the client population. The client support group has begun meeting and addressing the psychosocial and emotional needs of participants.

Targeted Adolescent Pregnancy Substance Abuse Project
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CSAP/MCHB
SP-00472
09/30/89-08/31/93
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PROBLEM: Pregnant young women are a special subpopulation who are vulnerable to a wide variety of adverse psychological, social, and developmental outcomes, including drug abuse. In view of the association between early drug use and family history of drug use, the children of young drug users may themselves be at increased risk for drug use.

GOALS AND OBJECTIVES: This project has two primary goals: (1) To prevent or decrease drug use among high-risk young women who are pregnant; and (2) to decrease the likelihood of multigenerational cycles of drug use.

To meet the project goals, the following objectives have been delineated:

1. Provide a combination of three interventions aimed at preventing and reducing drug use by pregnant women: (a) Drug education and skills training, (b) parenting education, and (c) case management; and
2. Provide education and support for the extended family and/or social network of the target population in order to enhance the success of the project in the target population.

METHODOLOGY:

Behavioral skills training: The behavioral skills training is based on the Project ADAPT model, a community transition program for juvenile delinquents funded through the National Institute of Drug Abuse. The trainings are conducted prenatally for 9 weeks, with one session each week. An incentive program has been incorporated into the group session. Financial assistance with transportation and/or child care will be made available to participants.

Parenting education: Parenting education will occur both prenatally and postpartum. In the prenatal phase, a public health nurse will visit the participants monthly and immediately following the birth. The public health nurse will intensify services to the clients. In-home teaching on a variety of issues will occur. After this initial intensified postpartum period, home visits will resume on a monthly basis, or more often if deemed necessary. Additionally, a support group will be established and will combine group education in parenting skills and social support modalities.

Case management: The participants will be assigned to a social worker and a public health nurse who will provide joint case management services. The role of the case manager is threefold: (1) To provide a continuous supportive relationship with the client prenatally and postpartum; (2) to assist the participant in reinforcing and practicing the skills learned in the drug prevention and parenting skills training; and (3) to provide a linkage between the participants and significant others involved in their lives (e.g., parents, father of the baby, teachers, supervisors, and community agencies/resources).

Orientation sessions with support network: In order to enhance the participants' success in the project, two orientation sessions will be held for persons in the participants' support network. The purpose of the first orientation will be threefold: (1) To introduce project staff to the extended support network, and define the goal of the project, the role of the staff members, and the basic structure of the project; (2) to introduce the skills of the drug prevention groups; and (3) to introduce parents and significant others to one another to broaden the support network. The second orientation will focus on the changes produced by the birth of the

baby, ways to help alleviate stress for the young women, and changes the extended family/significant others may experience.

EVALUATION: The drug prevention skills training, case management, and parenting education components will be evaluated separately. The drug prevention skills training will be evaluated using a written pretest-posttest of knowledge of skills and a tape-recorded roleplay pretest-posttest of skills usage. The parenting component will be evaluated using the Home Observation for Measurement of the Environment (HOME) instrument, and parenting attitudes will be explored using the Adult Adolescent Parenting Inventory (AAPI). Case management will be evaluated in both process and outcome measures with data gathered from case records and goal attainment. Data will be gathered about demographics, substance abuse, social support, and risk factors at intake and at 6 and 12 months postpartum. Substance abuse information will also be gathered at least once per month during home visits. Random toxicology screening of urine samples will be performed to corroborate self-report of use.

EXPERIENCE TO DATE: The project is in its final year of funding. At this time, all of the clients (41) have completed the drug prevention skills training component. Evaluation of the effectiveness of the drug prevention skills training groups is now in progress. Clients are also evaluated for alcohol and other drug use, depression, stress, and social support at the 6- and 12-month postpartum points. To date, 30 clients have reached the 6-month point, with an additional 8 clients expected to reach this point within the next month (only 3 clients are not expected to reach the 6-month marker). The high retention rate seems to be a result of the project's location in the community, the social support that clients offer to one another, and the duration of services. Retention will be further evaluated at the end of the project.

For this final year, emphasis will be on the provision of clinical services and completion of the evaluation. Finally, there are several community groups, as well as the Seattle-King County Public Health Department, that are interested in institutionalizing the project. Project staff will work with these groups to enhance the likelihood of project services being continued through community partnership with Seattle-King County Public Health.

Model Projects for Pregnant and Postpartum Women and Their Infants

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CSAP/MCHB
SP-02123
07/15/90–04/30/95
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PROBLEM: Both national and local measures indicate a dramatic increase in the use of cocaine and other drugs during pregnancy. The resulting effects of cocaine upon the infant and, consequently, upon the mother/child relationship remain a dominant concern. The larger negative effects of cocaine on the family, community, and society make it a critical health problem.

Various studies indicate that maternal cocaine use is linked to a higher incidence of spontaneous abortions, abruptio placentae, intrauterine growth retardation, preterm labor, prematurity, low birthweight, and small head circumference. Furthermore, infants exposed to cocaine during pregnancy appear to be at greater risk for strokes, seizures, and possibly sudden infant death syndrome (SIDS) and birth defects such as congenital malformations of the urinary tract. Cocaine-exposed infants tend to exhibit irritability, tremulousness, and impaired alertness status.

Coupled with the dramatic increase in the use of cocaine and other drugs during pregnancy and the fact that pregnant substance abusers are far less likely to obtain adequate prenatal care is the fact that appropriate alcohol and other drug abuse (AODA) treatment services and support services needed to address the complicated psychosocial problems pregnant substance abusers face do not currently exist to any significant degree. Furthermore, prevention/intervention programs that focus on drug-abusing women and prenatal care are not available, particularly for minority women.

GOALS AND OBJECTIVES: Identified locally as "Project Fresh Start," this project has two primary goals: (1) To promote the involvement and coordinated participation of multiple organizations in the delivery of intensive, family-centered, comprehensive services for substance-using pregnant and postpartum women and their infants; and (2) to increase the availability and accessibility of prevention, early intervention, and treatment services for this population.

The project objectives are to:

1. Promote early identification and referral of substance-abusing pregnant women;
2. Enroll 150 women in Project Fresh Start by the end of the second project year;
3. Insure that participating women and their children receive the services they require through case management, indigenous support mothers, and a neighborhood support center;
4. Promote stronger linkages, better communication, ongoing collaborative efforts, and coordinated services delivery;
5. Keep the mother and child/children together and avoid the removal of the infant and other children from the family; and
6. Enroll 50 women in Project Fresh Start by the end of the first project year, and an additional 100 women by the end of the second project year.

METHODOLOGY: Under the leadership of the Milwaukee County Combined Community Services Board (CCSB), Project Fresh Start is a demonstration program directed at the inner city of Milwaukee (zip code areas 53205, 53206, and 53212) and designed for women and children who are affected by substance abuse,

particularly by the use of cocaine during the prenatal period. An early identification and referral system will be developed in conjunction with a case management/service provision program including aftercare services. Three support mothers have been hired and provide information, support, and referrals to appropriate resources through individual contact, facilitation of support groups, and home visits. Comprehensive services are provided through strong linkages with AODA service providers, the medical community (specifically, perinatal and pediatric care), the City of Milwaukee, community-based organizations, churches, and job training and educational resources. A family resource center has been established to offer counseling, housing, nutrition and health information, onsite child care, and family support groups. Baby formula, clothes for women and children, and other donated items are also provided to the center. The neighborhood center offers a safe and supportive environment that is geographically accessible.to participants.

Services are offered to women and their infants and children on a long-term basis, beginning prenatally and continuing until the child is 5 years old. The program utilizes the resources of the Milwaukee County Combined Community Services Board, Sinai Samaritan Health Center, St. Mary's Hospital, St. Joseph's Hospital, the Milwaukee County Department of Social Services, the Milwaukee Fight Back Initiative, health maintenance organizations (HMOs), the Special Supplemental Food Program for Women, Infants and Children (WIC), and other health care providers.

A project coordinator, two case managers, three support mothers, and one child care worker staff the project. An administrative liaison from CCSB monitors the program and serves as liaison for seven county programs that work with women who abuse substances (particularly cocaine).

EVALUATION: Over the course of the 5-year project, the evaluation will be conducted in three phases. The first phase will produce the detailed evaluation plan; develop data collection instruments; and provide an initial description of the program, the clients, and client access to prenatal care and drug treatment. The second phase will provide a full description of the model features included in the program, evaluate the early identification and intervention effort, and describe outcomes for mothers who deliver during the first 2 years of the program. The third phase will describe changes in program elements, describe progress for mothers who remain with the program for 2 years subsequent to delivery, and, where feasible, make comparisons that relate program outcomes to program participation. A preliminary evaluation that has been conducted describes client participation during the first year and represents an early phase of the program development.

EXPERIENCE TO DATE: A project coordinator, two case managers, and two support mothers have been hired. An advisory council consisting of agencies collaborating with Project Fresh Start has been established. A brochure has been developed along with intake forms, and interagency agreements have been developed and distributed to the agencies that are involved with Project Fresh Start. The neighborhood family resource center has been established at the Carter Child Development Center. Referrals to Project Fresh Start began on the target date of January 28, 1991. A staff person from the Milwaukee County Combined Community Services Board has been assigned to provide technical assistance to the project.

The third-year goal of enrolling 100 additional program participants has been exceeded during the second quarter of 1992. Training for staff and involvement of Project Fresh Start clients continue to be holistic and have helped to empower families in their desire to live a drug-free lifestyle.

Perinatal Services for Substance-Using Indian Women

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CSAP/MCHB
SP-01884
07/01/90–04/30/95
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PROBLEM: Alcohol and other drug use (AODA) and smoking are two of the most significant preventable activities which impact reproductive health care on Wisconsin Indian reservations.

Available information indicates that American Indian women appear to be particularly susceptible to alcohol-related problems and appear to be particularly at risk for fetal alcohol syndrome. A recent survey of the 11 tribal groups in Wisconsin, conducted by Great Lakes Inter-Tribal Council (GLITC), revealed that the use of alcohol by women of childbearing age is in excess of 50 percent of the population, ranging from 49 percent to more than 90 percent in some areas.

Cigarette smoking and exposure to cigarette smoke have been determined to be contributing factors in preterm birth, low birthweight, spontaneous abortion, and fetal and infant death. Of women visiting the Great Lakes Inter-Tribal Council certification clinics for the Special Supplemental Food Program for Women, Infants and Children (WIC) during June 1989, 49.7 percent reported current smoking. This significant area must be addressed when implementing comprehensive, reproductive health care service systems for women on the reservations.

GOALS AND OBJECTIVES: The project has established the following goals and related objectives:

Goal 1: Promote the involvement and coordinated participation of multiple organizations in the delivery of comprehensive services for substance-using pregnant and postpartum women and their infants.

Objectives:

a. Establish a statewide consortium of groups that have a special interest in AODA/perinatal issues. This group would serve as a conduit for current information on the latest "happenings" in these specialty areas on a statewide (and in some cases, national) basis. The project has contracted with some of these member groups to provide direct or consultative services.

b. Establish an overall project advisory committee composed of an Indian Health Service (IHS) representative, a representative selected from a professional/paraprofessional workgroup, a representative from each of the community work groups, the project coordinator, and the perinatal service coordinators.

c. Establish a professional and paraprofessional workgroup at each of the three sites, composed of project staff; representatives of tribal groups such as health boards, community health providers, and AODA and mental health staff; and local nontribal providers of these services. These workgroups will serve as an advisory committee on a site basis, assist in assessing needs, participate in planning and evaluating the outcomes of the reservation activities, and provide a forum for discussions, problem solving, and advocacy in developing ongoing self-supporting programs and services.

d. Establish a citizen community workgroup at the three sites of the community AODA educational programs targeting pregnant and postpartum women and infant issues; and

e. Establish contracts at three tribal sites in which to test the service improvement model.

Goal 2: Increase availability and accessibility of prevention, early intervention, and treatment services for the pregnant/postpartum women of the project.

Objectives:

a. Increase the cultural understanding/sensitivity of both on- and off-reservation providers.
   (1) Provide a culturally sensitive 1-day cultural awareness workshop on each of the three reservation sites during the first year of the grant (with additional annual workshops if needed), and reruns for new employees (or providers) both on and off the reservation.
   (2) Provide a 1-day workshop on women's AODA and perinatal issues on each of the reservation sites during the first year.
   (3) Use ongoing "training of trainers" and culturally sensitive general educational packages for AODA perinatal providers.

b. Determine current gaps in services and close these gaps in order to produce a comprehensive system that includes appropriate referral and a team approach.
   (1) Conduct a formal needs assessment at each of the project sites initially and at the end of the project period.
   (2) Hire three Native American women as perinatal service coordinators to coordinate services for clients and educational programming for tribal health staff and for the general public.
   (3) Provide case management at appropriate levels for all pregnant women who wish to take part in the program.
   (4) Develop community-based AODA awareness and prevention programs targeting parenting, preconceptional, and prenatal health issues.
      (a) Implement or enhance existing programs that address AODA, traditional beliefs, interpersonal communications, and growth and development issues for women of childbearing age and their families.
      (b) Conduct local awareness campaigns related to these concepts, such as Healthy Habits/Healthy Babies Awareness Month.

Goal 3: Enhance the developmental progress of infants born to substance-using women.

Objectives:

a. Develop a comprehensive system to ensure that all of the infants of the target population will be identified and will receive appropriate assessments, and that the affected infants will receive diagnostic evaluations, referrals, treatment, and followup.
b. Develop a training program for tribal health care workers to teach parents special methods of infant care and early stimulation for infants affected by, or at risk for being affected by, maternal substance abuse.
c. Support interagency attempts to develop a review system which addresses the high Native American infant mortality rate in Wisconsin, which may or may not have some linkages with substance abuse.

METHODOLOGY: Under the leadership of the Great Lakes Inter-Tribal Council, the project will facilitate the coordination of a continuum of services for the target population at three selected tribal sites through collaboration with tribal health leaders and health care providers. Three perinatal service coordinators will be hired to coordinate comprehensive case management services for the target women. Nursing services at the tribal level will be expanded for perinatal care, with those nurses receiving additional AODA training. The Wisconsin Indian Network for Genetics Services (WINGS) will track the development of infants born to the clients. Additional support will be provided for parents of children with special health needs through parenting classes and infant stimulation courses.

Additional collaboration with other agencies will be facilitated by GLITC for a variety of direct service and training needs. To reach our goals, we will:

1. Develop clearly defined protocols of interaction with specific health care providers/agencies to create new or strengthened linkages and prevent unmet patient needs;
2. Identify pregnant substance abusers on the reservations who are not receiving prenatal care;

3. Increase utilization of early and continuous prenatal care by the target population; and
4. Provide a continuum of well-coordinated maternity and AODA treatment services, either directly or through referral.

EVALUATION: A variety of both process and outcome measures will be used. Most have already been determined.

EXPERIENCE TO DATE: The three project sites which represent the variety of health care systems currently being used on Wisconsin reservations were identified in the spring of 1991. Two sites were staffed in May 1991 and the third site in July 1991.

Systems surveys of the providers have been completed at all three reservations. A similar survey of clients of the system is currently being conducted.

Project brochures, release of information forms, consent forms, and case management flow sheets have been developed and are being used at all three sites. The instruments to be used in assessing the infants of the target population have been identified as the Denver II and the Health Check format.

A project orientation/miniconference has been conducted for the health and human service staff of the three reservations. Consortium meetings and project advisory meetings are taking place as scheduled. Although client services are being coordinated, few official participants have signed consent forms. We feel that this is due to the lengthy period of time needed to develop a trust relationship within Native American communities, as well as a culturally based reluctance to signed consent forms. A verbal consent format has recently been developed. We hope this approach will help potential clients feel more comfortable with becoming project participants.

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CSAP/MCHB
SP-01641
09/30/89–05/31/94
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PROBLEM: The problems associated with perinatal substance abuse have attracted national attention. According to the final report of the Governor's Task Force, 1 in 4 pregnant women in Wisconsin (approximately 18,000 women) place their babies at risk because of their consumption of alcohol, and 1 in 10 pregnant women in Wisconsin (7,900 women) use illegal drugs. The State of Wisconsin Department of Health and Social Services, Division of Health, reports that one in seven women of childbearing age in Wisconsin use illegal drugs, including cocaine, and one in four mothers who give birth in Wisconsin use tobacco during pregnancy. An evaluation of the Wisconsin Prenatal Care Coordination Projects conducted for the Wisconsin Department of Health and Social Services by Beverly Middleton et al. stated that Wisconsin's low birthweight rate increased from 5.5 percent in 1988 to 5.9 percent in 1990. In Wisconsin, as elsewhere, late prenatal care is strongly associated with adverse birth outcomes.

Many projects hoping to reduce substance abuse among pregnant and postpartum women and infants have used a clinical approach, while others have focused on patient education and professional staff development. Other projects have attempted to raise public awareness of the problem within the community at large. This project is unique in that it combines these three approaches (focusing efforts in prevention, intervention, and treatment), thereby using a more comprehensive, integrated strategy. Of particular interest and concern to this project are the rural areas of the south central part of Wisconsin, where services are often inadequate or nonexistent. The need for services in rural areas has been underestimated because the population is more dispersed and thus less visible; however, the need for services in these areas is no less urgent than in large, urban areas.

GOALS AND OBJECTIVES: The project has identified and established partnerships among key individuals in the delivery of perinatal substance abuse prevention, intervention, and treatment services. The cornerstone of these partnerships has been formed by (1) The University of Wisconsin at Madison's wide array of clinical genetics and family medicine and practice services, training, research programs, and outreach; (2) the Perinatal Centers' clinical services in prenatal care, obstetrics and gynecology, and high-risk neonatal intensive and general pediatric infant care; (3) the primary care providers, mainly in rural communities; and (4) the community-based services, including prevention, intervention, and substance abuse treatment. The project has built upon the strengths of existing programs, integrating the multifaceted education and clinical services system more closely to the system of community-based services for women and children. Gaps and needs are being identified as this integration occurs, and program development is underway to address these gaps and needs.

METHODOLOGY: A consortium of individuals representing a wide range of community organizations and service providers has been meeting monthly since the fall of 1989. Local work groups were also established in outlying counties, consisting of representatives of a broad array of community-based agencies, health care providers, public health and human service agencies, alcohol and other drug abuse system agencies, and schools.

An annual community-based public awareness program for prevention of perinatal substance abuse has been held through the Wisconsin Alcohol, Other Drugs and Pregnancy Work Group.

To date, the project has provided hundreds of public education programs and seminars and workshops for human service professionals, health care providers, and educators. Through its Primary Care Work Group, the project has also developed a Brief Screening and Intervention Kit for Providers. Using this tool, the project has provided professional training and ongoing technical assistance to existing family planning and public health agencies, hospitals, and medical practices to initiate and integrate the use of screening, referral, assessment, and followup tools and protocols for women who may be at risk for perinatal substance abuse.

The project has sponsored, along with several other organizations, two large regional conferences on Perinatal Substance Abuse, held in Madison in March 1992 and 1993.

The clinical component of the project consists of a consultation model in which a staff member serves 1 day each week in the region's high-risk prenatal center as a specialist in alcohol and other drug screening, assessment, intervention, short-term case management, and counseling. The staff member is also on call for consultation with several family practice physicians in rural areas.

A third clinical component of the project takes place at the only day treatment facility for women and children in the 14-county service area. Project staff provide a weekly support group for women who are waiting to enter treatment and a weekly support group for women in aftercare. Onsite child care is available during both these programs.

The project's Mental Health Work Group has met monthly for 3 years and is developing a comprehensive training program for clinicians who serve pregnant women with diagnoses of alcoholism or other addictions in combination with a mental illness.

EVALUATION: The evaluation component of the project seeks to address two central evaluation questions:

1. Did the project have an impact on the service delivery system?
2. Does system change have an impact on how clients are served?

Initially, key components of the Perinatal Substance Abuse Service Delivery System were identified. Second, key individuals were identified and interviewed in each county. Third, results from these interviews were shared with participants in each county. Measures of change in the service delivery system will be collected, following project activities in the counties.

EXPERIENCE TO DATE: The major findings of the initial face-to-face interviews with key individuals in each county revealed few surprises. As we suspected, many services are not available in these areas, and when available, they often present significant access barriers. Providers in rural areas often have been unaware of the existence of services. Complete summaries of respondents' views in each county are available from the project. In addressing the most commonly identified needs for each county, staff have concentrated on bringing providers together in an initial meeting to discuss these county reports, with the intent of stimulating local planning to address needs. In many cases, key individuals locally have identified the need for further training in their setting, and the project has provided it. Continuing consultation is also underway for program development, grant development, and long-range planning to address local needs.

Wyoming Perinatal Substance Abuse Prevention Program
University of Wyoming
School of Nursing
P.O. Box 3065, University Station
Laramie, WY 82071
(307) 766-6576
(307) 766-4294 fax

CSAP/MCHB
SP-02000
07/01/90–06/30/93
Project Director(s):
Norma N. Wilkerson, R.N., Ph.D.

PROBLEM: The purpose of this clinical project is to provide a model program which will serve to mobilize rural/frontier community involvement in activities to identify, diagnose, and treat substance-abusing pregnant and postpartum women and their infants. This project addresses the following problems: (1) The target population, all women of childbearing age in Wyoming, is experiencing all of the high-risk factors and outcomes associated with both legal and illegal substance abuse; and (2) although elements of a coordinated statewide prevention program exist, there are no coordinated efforts in Wyoming to prevent substance abuse in pregnant and postpartum women.

GOALS AND OBJECTIVES: The goals of this project are to: (1) Promote the involvement and coordinated participation of multiple organizations in the delivery of comprehensive services for substance-using pregnant and postpartum women and their infants; and (2) increase the availability and accessibility of prevention, early intervention, and treatment services for these populations.

Specific project objectives are to:

1. Increase the awareness of the citizens of Wyoming regarding the problem of substance abuse in the childbearing population;
2. Increase the skills of Wyoming physicians, nurses, and other health care professionals in identifying, diagnosing, and referring substance-abusing pregnant and postpartum women;
3. Increase access to services for the target population;
4. Increase the competency of health care professionals in treating, educating, and counseling the target population;
5. Increase the awareness and competency of health care professionals in the treatment and support of infants and children from substance-abusing families; and
6. Decrease the numbers of substance-abusing pregnant and postpartum women.

METHODOLOGY: Wyoming has been divided into 6 regions and 12 target communities for the purpose of reaching all women of childbearing age in the State, including a subset focusing on the Native American population. An advisory board has been recruited and appointed, consisting of key professionals from the following State and local agencies: (1) Wyoming State Health Department, (2) substance abuse treatment centers, (3) family practice centers, (4) Indian Health Service, (5) Family Health Services, (6) Wyoming Special Supplemental Food Program for Women, Infants and Children (WIC), (7) Greater Wyoming State Chapter of the March of Dimes Birth Defects Foundation, and (8) University of Wyoming School of Nursing.

A public and professional awareness campaign has been implemented, a computerized network for health care professionals has been developed, and a toll-free telephone service for the public has been established.

The intervention strategy for further achieving the goals and objectives of the project is an educational approach to train volunteer community health professionals in target communities to use the Health Behavior Change Model, Community Action Planner, and Goal Attainment Scaling System.

EVALUATION: Process and outcome data are currently being collected and analyzed relative to the major evaluation criteria. These include increasing screening and diagnosis in the target population; increasing numbers of health professionals working with treatment centers to promote access for the target population; increasing numbers of referrals for treatment; increasing numbers of community support groups; decreasing numbers in the target population who use alcohol, tobacco, and illegal drugs; and improving birth outcomes for infants in Wyoming.

EXPERIENCE TO DATE: We have accomplished the following to date:

1. Developed a slide presentation which describes the nature of this prevention program for the citizens of Wyoming;
2. Obtained brochures, buttons, and bags for public awareness purposes;
3. Arranged news releases, interviews, and public interest programs;
4. Implemented toll-free telephone service;
5. Trained 32 community lead professionals (CLPs) in 12 target sites;
6. Enabled these CLPs to conduct individual community programs statewide;
7. Conducted staff training in electronic mail and computer bulletin board procedures;
8. Completed materials collection for a reference library;
9. Obtained and entered 1989 and 1990 maternal smoking and alcohol statistics from the State birth certificate data base; and
10. Had an article accepted for publication in the *Journal of Family and Community Health.*

Appendix: Projects Completed in FY 1992

Project K-MOD (Keeping Mothers Off Drugs)
Apalachee Center for Human Services, Inc.
625 East Tennessee Street
P.O. Box 1782
Tallahassee, FL 32302
(904) 487-2930

CSAP/MCHB
SP-01179
09/01/89–08/31/92
Project Director(s):
Frank Beeman, M.A.

Project K-MOD (Keeping Mothers Off Drugs) is located within the Chemical Dependency Unit of the Apalachee Center for Human Services, Inc. The project will link together county health units, economic aid services, and Administration for Children, Youth, and Families services, and the project will expand substance abuse treatment availability. In addition, the project will provide needed transportation and child care supervision for those mothers within the target population who have neither. The project will develop a continuum of services for pregnant/postpartum low-income minority mothers ages 18–44 years in Gadsden, Leon, Wakulla, and Jefferson Counties who are abusing psychoactive chemicals. The evaluation plan will consist of three parts: A system process evaluation, a client process evaluation, and a project outcome evaluation.

Comprehensive Intervention Program for Recovering Addict Mothers

Emory University
School of Medicine
Georgia Mental Health Institute
1256 Briarcliff Road, N.E.
Atlanta, GA 30306
(404) 894-8288

CSAP/MCHB
SP-01198
09/30/89–08/31/92
Project Director(s):
Iris E. Smith, M.P.H.
Contact Person:
Donna Z. Dent, M.A.

PROBLEM: The Georgia Addiction, Pregnancy, and Parenting Project (GAPP) is an intervention program for pregnant women and new mothers who are trying to discontinue their use of alcohol and/or other drugs. It seeks to prevent substance use among pregnant and postpartum women and drug-related developmental problems in their offspring. The intervention program is a direct application of research on the prenatal effects of drug exposure which has been conducted at the Laboratory of Human and Behavioral Genetics at Emory University School of Medicine since 1980. Beginning in 1987, with seed funding from the Georgia Department of Human Resources, GAPP developed a pilot intervention program for pregnant and postpartum alcohol- and drug-addicted women.

GOALS AND OBJECTIVES: The aim of the GAPP project is to (1) reduce the incidence of developmental problems associated with prenatal drug exposure and maternal drug and alcohol use by increasing the number of women who discontinue drug use during pregnancy, and (2) facilitate continued abstinence postpartum through case management and continuous psychosocial support and parenting education.

In September 1989, GAPP received funding from the Office for Substance Abuse Prevention (now the Center for Substance Abuse Prevention) to expand the existing pilot program to include: (1) Case management and outreach to recovering postpartum and pregnant women; (2) development of community-based aftercare support groups; (3) refinement and expansion of our pilot parent training component; (4) expanded community outreach; (5) instrumental support to pregnant and postpartum addicted women; and (6) professional and lay education and training.

METHODOLOGY: Services provided by GAPP include case management and community outreach, aftercare and parenting support groups, subsidized child care for women seeking drug treatment, screening and evaluation of children of women participating in the program, and information and referrals for drug-using women and their family members.

EVALUATION: The evaluation study design includes preprogram and postprogram measures of knowledge acquisition, psychological distress, drug use, and other psychosocial factors. Evaluation instruments include the Psychiatric Symptom Checklist 90, the Addiction Severity Index, the Parenting Stress Index, and other instruments developed internally.

EXPERIENCE TO DATE: The program serves a predominantly (90 percent) black population in the metropolitan Atlanta area. The majority of clients (84 percent) report that the primary drug they abuse is cocaine, although 65 percent also report significant concurrent alcohol use. The mean age of our client population is 26 years old, and the average number of children is two. Preliminary data from our evaluation study indicate that approximately 40 percent of GAPP clients enter drug treatment. Of these, only about one-third have a history of previous treatment for addiction.

Hope for Families
Saint Vincent Medical Center
Department of Pediatrics
2213 Cherry Street
Toledo, OH 43608
(419) 255-2563

CSAP/MCHB
SP-01107
09/01/89–08/31/92
Project Director(s):
Asha Patel, Ph.D.

PROBLEM: Hope for Families is designed to involve the general community, lay and professional, in preventing substance use during pregnancy through education and awareness of the full scope of the problem.

GOALS AND OBJECTIVES: The project has established the following goals and related objectives:

Goal 1: Involve the community in preventing substance use during pregnancy.

Objectives:

a. Reach 80 percent of the general public and professionals in Lucas County with information about substance use during pregnancy; and

b. Pilot instructional materials about substance use in pregnancy as part of health education classes in 5 area high schools, with approximately 300 students receiving information.

Goal 2: Decrease substance use during pregnancy through identification and engagement of pregnant substance users in individualized, family-focused early intervention.

Objectives:

a. Identify 175 substance-using pregnant women within the St. Vincent Medical Center during the first project year; and

b. Enroll 40 pregnant substance users in the project during the first year, 60 in the second year, and 85 in the third year.

Goal 3: Reduce the consequences of substance use in pregnancy to the identified women and their infants.

Objectives:

a. Eighty percent of the participants identified in the first 26 weeks of pregnancy will have infants with appropriate weight for gestational age and seventy-five percent of these infants will reach maturity of at least 37 weeks at the time of delivery;

b. Participants will demonstrate an understanding of their child's medical, social, and developmental needs by providing an appropriate home environment and effectively using community resources; and

c. Fifty percent of the project participants will continue in the program for 4 months after the birth of their babies.

METHODOLOGY: The project uses the public health approach of primary, secondary, and tertiary prevention. Primary prevention is achieved through education and awareness activities; secondary prevention is achieved through early identification of the program with toxicology screening. Tertiary prevention minimizes the consequences of substance use through aggressive intervention.

Specifically, Hope for Families will serve 175 substance-using pregnant women from a central city population. Through comprehensive health care, substance use treatment, group process, and social services, these women will reduce or eliminate substance use during and after pregnancy. Infants born to these women will be full term and will have the benefit of positive parenting from their birth mothers.

The community is involved in all aspects of the program through general community awareness activities, education, collaboration, and intervention. The target population for services has been identified as women who use substances during pregnancy. The children born to substance-using women will be provided with project services and early intervention to support their physical, emotional, mental, and social growth. The entire project is aimed at decreasing barriers and increasing access to the traditional and supportive health care services. Through planned activities, the project has made a concerted effort to decrease or eliminate substance use among pregnant women in the community. All interventions are directed toward the improvement of birth outcomes.

Evaluation activities will focus on documenting the percentage of participants who remain engaged in the Hope for Families program and community services. Evaluation activities also will focus on interventions that keep mothers engaged in the program (i.e., transportation, child care, staff availability, and home visitation).

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Geographical Index: Active SPRANS Listed by Standard Federal Administrative Regions

Region One

(Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont)

Connecticut

Massachusetts

New Hampshire

Rhode Island

Region Two

(New Jersey, New York, Puerto Rico, Virgin Islands)

New Jersey

New York

Region Three

(Delaware, District of Columbia, Maryland, Pennsylvania, Virginia, West Virginia)

Delaware

District of Columbia

Maryland

Pennsylvania

Virginia

Region Four

(Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee)

Florida

Georgia

Kentucky

North Carolina

Tennessee

Region Five

(Illinois, Indiana, Michigan, Minnesota, Ohio, Wisconsin)

Illinois

Indiana

Michigan

Minnesota

Ohio

Wisconsin

Region Six

(Arkansas, Louisiana, New Mexico, Oklahoma, Texas)

Arkansas

Louisiana

New Mexico

Oklahoma

Texas

Region Seven

(Iowa, Kansas, Missouri, Nebraska)

Iowa

Missouri

Region Eight

(Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming)

South Dakota

Wyoming

Region Nine

(American Samoa, Arizona, California, Commonwealth of the Northern Mariana Islands, Federated States of Micronesia, Guam, Hawaii, Nevada, Republic of Belau, Republic of the Marshall Islands)

Arizona

California

Hawaii

Region Ten

(Alaska, Idaho, Oregon, Washington)

Alaska

Idaho

Oregon

Washington