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ABSTRACT

This project involved a broad multi-faceted national program to increase participation and recognition of women, including minority women, in medical education. It included a grass roots change agency to initiate, coordinate, sustain, measure, and disseminate carefully planned educational reform. Activities carried out during the 7-year project included the following: (1) educational research internships and preceptorships focusing primarily on issues of educational equity were given to 13 women; (2) a comprehensive installation plan for the initiation and development of the role of educational research specialist was designed and implemented on local levels; (3) a national workshop on women in medical academia, attended by 18 medical school administrators, was conducted in order to encourage a supportive environment for programs for women; (4) a minority women in medical academia research and action workshop was conducted; (5) assistance in design and evaluation of continuing medical education offerings was provided to help increase the number of women physician role models; and (6) an annual project newsletter was distributed to all medical school deans, women in medical academia, and representatives of impact groups in order to heighten awareness of women in medical academia. Although evaluation of the project was not final, it was found that the activities of the project had produced changes in individuals that eventually should produce educational equity in institutions. (KC)

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AMERICAN MEDICAL WOMEN'S ASSOCIATION
PROFESSIONAL RESOURCES RESEARCH CENTER

WOMEN IN MEDICAL ACADEMIA MODEL:
A NATIONAL EXPERIMENT IN PLANNED CHANGE

NIE-G-0007

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FINAL REPORT

Section 1: Introduction and Overview

On November 1, 1978, the American Medical Women's Association's Professional Resource Research Center (AMWA PRRC) was awarded a two-year grant entitled: Women in Medical Academia: A National Experiment in Planned Change. Although coordination of grant activities and evaluations have been conducted from the Tucson-based office, the scope of the grant has been nationwide, encompassing 124 U.S. medical schools, the entire AMWA membership of over 5,000 physicians, local chapters of AMWA and the resources of the American Medical Student Association, the Physicians National Housestaff Association, the Student National Medical Association (composed of third world pre- and medical students), the Federation of Professional Women, the American Medical Association through its Board of Trustees and Student and Resident Business Section, the National Education Association through its Resource Center for Research on Sex Roles in Education and the Teachers Rights Section, and varied community agencies

Section 2: Background

The American Medical Women's Association Professional Resources Research Center (AMWA PRRC) began its "Women in Medical Academia" project in 1976 under the direction of Marlys H. Witte, M.D., Professor of Surgery at the University of Arizona, a member of AMWA's Professional Resources Committee, as a volunteer effort of concerned AMWA's members to obtain more information about and improve the status and visibility of women in medicine through coordinated research and action programs. From 1976-78 the Women in Medical Academia Project:

1. documented the underutilization of women physicians in the United States through a *national statistical study* which for the first time provided information on the representation of women M.D. faculty by rank, by department and by school (JAMA 241: 2808-13, 1979)
2. designed and administered a *national attitude survey* to assess the reaction of five groups--male and female students, male and female faculty, and administrators toward women physicians as leaders in medical academia and practice
3. initiated a comprehensive survey of *academic advancement policies* in medical schools
4. compiled the first *mailing list* of women physicians in medical academia representing the beginnings of a vast communication and organizational network
5. designed a *longitudinal survey* of University of Arizona medical students focussing on issues of medical educational equity
6. designed and field-tested participatory *leadership training*

programs including the first national leadership workshop in educational equity and the first undergraduate medical school course on women in medicine, programs designed to train and develop strong women medical faculty and student leaders to serve as leadership role models and organize future leadership workshops throughout the country

7. created and launched the annual "Women in Medical Academia" newsletter which was disseminated to physicians and biomedical scientists in medical academia and to the national medical community

Section 3: Goals and Objectives

The "Women in Medical Academia Model: A National Experiment in Planned Change" is a broad multi-faceted national program to increase participation and recognition of women including minority women in medical education. Through AMWA's PRRC it has established itself as a grassroots change agency to initiate, coordinate, sustain, measure and disseminate carefully planned educational reform. To obtain its goals AMWA PRRC established a series of objectives in 1978.

1. Individually tailored and designed advanced educational research *internships and preceptorships* focussing primarily on issues of educational equity were offered in selected medical (and related) institutions throughout the nation in order to maximize trainee motivation, acquire relevant skills by on-the-job training, and develop useful supportive role model-mentor relationships for women in medical academia.
2. A comprehensive *installation plan* for the initiation and development of the "role" of educational research specialist was designed, individualized, and implemented in order to encourage a supportive institutional environment and enlarge capacity for local problem-solving and self-renewal.
3. A national *workshop* on women in medical academia for *medical school administrators* to be replicated locally was designed and conducted in order to heighten awareness, provide basic information and skills, and encourage a supportive institutional environment for installation of programs to expand opportunities for women in medical academia.
4. A *minority women in medical academia research and action workshop* to be replicated locally was designed and conducted to heighten awareness, provide relevant knowledge and skills and encourage a national network of support for minority women in medical academia.
5. Assistance in design and evaluation of *AMWA continuing medical education offerings* was provided to national and regional sponsors in order to enlarge the potential for and improve the quantity and quality of educational research and innovation by women in medical academia or in

practice, and thereby to increase the number and expertise of women physician role models and their influence in traditional and non-traditional medical educational settings.

6. An annual project *newsletter* was distributed to all medical school deans, women in medical academia, and representatives of relevant impact groups, in order to heighten awareness and motivation of women in medical academia, communicate important information, feature women role models and exemplary institutional programs in educational equity, and encourage a more supportive local and national environment for women in medical academia.

Section 4: Project Description

Work accomplished from November 1, 1978 through October 31, 1980

1. *Individually tailored and designed advanced educational research internship and preceptorships.*

Following two national competitions, 13 short-term awards were approved and 11 funded to individuals working full or parttime within medical schools and professional organizations to maximize trainee motivation, to help the awardees acquire relevant skills and on-the-job training, and to foster and develop useful supportive role model-mentor relationships for women in medicine. The awardees gained experience not only in conducting educational research, but also in establishing role model-mentor relationships, fiscal management of their own small grants, evaluation processes, CME-accreditation, utilizing contact and support networks, gaining acceptance within their institutions and devising dissemination plans. They include:

- a. Raquel Bauman, M.A., Doctoral candidate University of Houston and associate director, PHS Advocacy and Recruitment, American Medical Student Association Foundation, Chantilly, Virginia: .

Field Study of Chicanas in Higher Education and in Medicine

Chicana women encounter serious obstacles in pursuing higher education and only a small number of Chicanas enter the staff, faculty and administrative ranks of academia. Ms. Bauman's study of Mexican-American women holding doctorates or faculty/administrative appointments in Texas institutions of higher education was designed to determine the factors affecting their attainment of educational and professional goals. Because there were only 23 Chicana women in these positions in Texas institutions, a field-study approach was selected. A letter was sent to the appropriate official at higher educational institutions in the Texas college and university system requesting the names of the Mexican-American women officials and providing an assurance of confidentiality. Initial contact was made in person or by telephone wherever possible, and a letter was sent to each of the women requesting participation in a preliminary demographic profile questionnaire and ranking of the factors positively and negatively affecting the attainment of academic and professional goals of Mexican-American women. A representative sample of seven women was

identified for an indepth interview based on informal questions and developed around the factors selected as most significant by the entire group. Ms. Bauman is currently analyzing the results of her study for presentation and publication. The second part of Ms. Bauman's study consisted of a historical overview of the status of Chicana women, a statistical study of Chicana women in Texas during the period between 1970-79, and a history of women as healers in Mexican-American cultures. Ms. Bauman expects her final report on the attitudes and perceptions of Chicana administrators in higher education and their relation to academic and professional success to be used for future Minority Women in Medicine Leadership conferences and to serve as a vehicle of interaction among Chicanas in academia.

- b. Jo Ivey Boufford, M.D., Assistant Professor of Community Health and Pediatrics, Albert Einstein College of Medicine and Montefiore Hospital and Medical Center, Bronx, New York and Lila A. Wallis, M.D., Clinical Associate Professor of Medicine, Cornell University Medical College, New York, New York:

Production of a Transportable Module from a Regional Conference on "Women in Medicine: Goals for Today and Tomorrow" (held March 23-25, 1978 in New York City, under the joint sponsorship of the Women's Medical Associations of New York, New York State, New Jersey and Connecticut and Cornell University Medical College)

Dr. Wallis, who attended our Leadership Workshop in Denver in 1977 and again in Cambridge in 1980, designed the New York Regional Conference partially along the lines of the Denver Leadership Workshop and also included sessions specifically addressing curricular concerns related to women's health issues, career conflicts of women physicians, alternative life styles, part-time residencies and academic advancement practices. Through a small grant-in-aid to Drs. Wallis and Boufford, a videotape of the conference has been produced and distributed along with audiotapes of selected sessions. The videotape includes highlights of the conference sessions as well as indepth interviews with a few selected women physicians on the job and occasionally in their homes discussing some of their career conflicts and the way they manage family and professional responsibilities. The videotape module is accredited for Continuing Medical Education credit. Dr. Wallis is currently planning her second Regional Workshop on Women in Medicine which will be held at Cornell Medical College and Rockefeller University April 10-12, 1981. She has been successful in making changes in the medical curriculum relating to the teaching of pelvic and breast examination to medical students and also in gaining support for an Office on Women in Medicine at Cornell Medical College.

- c. Leah Dickstein, M.D., Assistant Professor of Psychiatry and Behavioral Sciences, Director, Mental Health Section, Student Health Service, University of Louisville, School of Medicine, Louisville, Kentucky:

Louisville Professional Inventory for Women in Medicine

Dr. Dickstein's study was presented at the annual meeting of the American College Health Association, San Diego, California, April

1980, "Evaluation of the Current Status and Effect of Role Models for Women Physicians" and is currently being prepared for publication.

Using a survey instrument of 115 questions about background, parents, and perceptions of parental satisfaction and basic areas in their lives, the questionnaires were individually distributed to each of 80 women residents (medical graduates in specialty training) at the University of Louisville School of Medicine by a senior medical women student. Opportunity for anonymity and a cover letter and return envelope were included. The return rate was 50% with an age average of between 24-59 and an average age of 30. Thirteen of the respondents were single, 23 or 59% were married, 10 were Catholic, 23 were Protestant, 2 were Black, 30 were White, 90% were raised by both biologic parents. Dr. Dickstein found that the women residents were concerned about their future in very specific ways. They wanted satisfying heterosexual relationships, generally through marriage, enough time to raise and enjoy children and time for themselves. They also wanted to be competent physicians, though they were not committed to any specific type of practice. Their suggestions for improving medical school and postgraduate training included: availability of more female role models, a good physician role-model in general, more faculty-student support and recognition of flexibility for individual needs. Interestingly, 30 percent of the respondents who could have been anonymous identified themselves in order to receive additional feedback from the research. There was a high positive correlation between profiles of the women physicians responding and of their parents. It would be interesting to know the ways these parents differ from those of the patient population. This study found an overall picture of self-acceptance, accomplishments and satisfaction among the residents who were from stable, small families. Their parents had more education than average and remained alive at least through the subjects' adolescence. The subjects were most often the oldest sibling, often without brothers, and at times the only child or the youngest.

- d. Vendette J. Ferrol, third year medical student of the Medical College of Wisconsin, Milwaukee, Wisconsin:

Survey of Cultural Conflicts of Minority Women Medical Students

Ms. Ferrol argues that little emphasis has been placed on the cultural conflicts both internal and external faced by women because they have chosen to pursue a career atypical of what their ethnic culture reinforces. The purpose of her study was fourfold: 1) to characterize the various conflicts faced by minority women because of their cultural background and structure; 2) to compare and contrast these cultural conflicts according to ethnicity; 3) to determine how cultural conflicts interrelate with racial and sex discrimination; and 4) to determine the degree of interference the cultural conflict creates for the individual woman's well being. Ms. Ferrol conducted a survey of minority women at the medical college of Wisconsin. At first she attempted to separate cultural conflicts from racial and sexual conflicts, but found that this was not possible. Ms. Ferrol then structured and administered nationwide a questionnaire

to female minority medical students about their experience during medical school admissions interviews; the attitudes of faculty, administration, medical students, non-medical peer group and family to determine what influences these experiences may have had on these women; how experiences both prior to and during medical school have affected many of these women, and their recommendations for change. As no mailing list of minority medical students was available, she distributed the questionnaire through informal mechanisms. Ms. Ferrol is in the process of writing the final report of her completed survey with which AMWA PRRC is assisting her.

- e. Lucinda Ann Harris, M.A., first year medical student, University of Connecticut, Farmington, Connecticut:

Toward Institutional Change: Revising Undergraduate "Women in Medicine" Course

Ms. Harris, Class of 1983, who has also completed her M.A. in Community Health, worked under the guidance of Dr. Janice Willms, Assistant Professor of Family Medicine and Coordinator of the Education Committee of the Connecticut Health Center Women's Caucus (also a graduate of a Leadership Workshop), to win acceptance of the Women in Medicine Elective as part of the curriculum at the University of Connecticut School of Medicine. The Course was initially offered in the spring of 1978 as a short course for intensive study for undergraduate credit if there was sufficient enrollment. Fifteen students took the course and their evaluation of content and format was extremely positive; they recommended that it be offered again. But when the proposal was resubmitted to the elective committee in the spring of 1979 it was rejected on the grounds that it lacked scientific rigor, was not designed in the usual format, and that there was insufficient balance among offered electives between social/behavioral sciences courses and basic medical science courses. Ms. Harris' effort was to gather material and restructure the format of the course to meet the objectives of the elective committee. Placing emphasis on locating current literature concerning women in medicine, she scoured the Index Medicus, Social Sciences Index, current works in the history of medicine index, and Psychological Abstract and listed and identified 190 key references relevant to women in medicine. They found the two best references to be a syllabus on sex and gender in health from the University of Michigan School of Public Health and selected references from Women in the Health System: Selected Annotated References. Those materials were reviewed and selections from them were included as part of the required course readings. Ms. Harris concluded that in general there is a great deal of resistance to such a course and the need is strongly questioned by many of the faculty. She suggests that a narrow path be tread to convince faculty that the course is rigorous and to communicate to students that behind the scientific terminology are some practical applications to the problems they encounter. Harris' research is not only useful in helping to gain acceptance of the University of Connecticut's course but a rich source of bibliographic data for those engaged in research or interested in women in medicine.

8. Linda Meade-Tollin, Ph.D., Research Associate in Microbiology, University of Arizona Health Sciences Center. Dr. Meade-Tollin has since been selected Women in Science Coordinator, SIROW, Women's Studies Committee, University of Arizona where she is the principal individual responsible for these programs at the University in Tucson, Arizona:

Enhancement of Professional Development Skills in Preparation for Minority Women in Medicine Workshop

Dr. Meade-Tollin was awarded a preceptorship to attend a workshop in August, 1975 on consulting and training skills sponsored by National Training Labs Institute for Applied Behavioral Science at their Bethel, Maine facility. The annual "Intervention Skillshop for Trainers and Consultants" is directed by Drs. Eva Schindler-Rainman and Ron Lippitt and Mr. Bryant Rollins, and is designed to meet the professional growth needs of internal and external consultants and trainers involved in organizational development work with public and private organizations. Dr. Meade-Tollin requested the preceptorship to improve consulting skills, to evaluate the applicability of the techniques for planned change to minority professional women, and to study with Dr. Schindler-Rainman. Dr. Meade-Tollin found the workshop an excellent introduction to concepts and methodology of consulting and has since used the skills most effectively in working together with Dr. Schindler-Rainman in designing and conducting sessions at the National Minority Women in Medicine Leadership Workshop in San Francisco, December, 1979, and again at the Minority Women in Medicine component of the Duke University Women in Medicine Leadership Workshop in October, 1980 (Minority Women in Medicine: "Making Change Happen"). Dr. Meade-Tollin also chaired a two-hour workshop for Black women chemists and chemical engineers as part of the annual convention of the National Organization for the Professional Advancement of Black Chemists and Chemical Engineers in May, 1980. She designed and administered a questionnaire to assess the attitudes of the women attending that workshop towards professional needs and development of minority women scientists.

9. Johanna Shapiro, Ph.D., Assistant Professor of Family Medicine, University of California-Irvine, Medical Center, Orange, California:

Attitudes Towards Maternity/Paternity Leave in Pregnancy During Residency: A Survey of Attitudes and Policies

Dr. Shapiro points out, "Residents are taught that pregnancy and childbirth are significant, often traumatic, developmental events in the life cycle of any family. As such they need to be treated with awareness, deliberation and sense of wonder. Yet, residency programs are strangely silent on the subject of pregnancy in their own residents". Dr. Shapiro found in an informal survey of family medicine residency programs in December, 1978, that none had coherent policies for dealing with pregnancy and childbearing among residents and little acknowledgement that pregnancy is a natural development and result of family life. As a result, programs have often found themselves unprepared to deal on a regular basis with women residents who also want

to be mothers. Women residents who became pregnant during residency were treated on an ad hoc crisis basis, resulting in additional stress for both faculty and resident, hastily constructed solutions, and often inequities. What is needed is a policy toward pregnancy and childbirth concordant with the values and philosophy communicated to residents during their training. The residency program should be responsible for supporting residents in their decision-making to the fullest extent possible and open to viable options for facilitating their decisions about pregnancy and childbearing.

In a detailed study of the residency program at her institution, Shapiro found that males had a significantly more negative attitude toward pregnancy during residency than females. Based upon extensive interviews and surveys with residents of both sexes Shapiro recommends several guidelines for the development of policy dealing with pregnancy during residency: 1) establishment of a psychological climate in the residency favorable to *childbearing rights*; 2) *normal pregnancy policy* for women of three months leave (preferably paid) including one month educational leave, one month sick leave and one additional month. This leave time would immediately surround the birth of the child and afterwards a months leave with the possibility of another month leave and additional negotiated time; 3) *abnormal pregnancy leave* deemed necessary by the attending physician and guaranteed return to the program as in the first recommendation. She is preparing her completed study for publication and subsequent distribution of recommended policy guidelines.

- h. Paula A. Treichler, Ph.D., Associate Dean for Student Affairs, University of Illinois College of Medicine, Urbana, Illinois:

Language Usage in a Medical Setting: A Practical Analysis

Dr. Treichler and a research assistant reviewed the literature on sexist language in medicine and sexism in language and found that the medical literature per se contained almost nothing on any of these topics. She did find, of course, examples of sex stereotyping and socialization and reviewed medical school publications and required and recommended textbooks for students and collected examples of sexist and nonsexist usage in medical settings. Using these examples, they compiled a questionnaire which along with a cover letter was submitted to the Urbana-Champaign Research Board for approval. Following that in March 1980, 649 questionnaires were sent to faculty, staff, and students connected with the Urbana-Champaign Medical Sciences Program. Of these 254 were returned, showing a fairly representative distribution among the populations surveyed. Those sampled as a means of comparison included medical students and faculty attending a Women in Medicine conference in Houston in January, 1980, and women undergraduate students in a women's studies course on the Urbana-Champaign campus in Spring, 1980. Responses were coded according to age, sex and constituency (population) of respondent and individual items on the questionnaire are being analyzed to: identify controversy; identify usage problems; identify disagreement among respondents which relate to age, sex or constituency. Questionnaires are also being reviewed for individual comments as

well as for practical suggestions for improvement. The outcome of this analysis should be: 1) preliminary report of findings and 2) guidelines for practical usage which will apply to both speech and writing and will derive directly from the findings. These will be forwarded to the dean of the medical school. Also planned are a report on textbooks to the dean and a scholarly article on pronouns, using the material gathered through this project as one portion of the linguistic data.

- i. Maria Bailas, M.D., Assistant Professor of Psychiatry, Case Western Reserve University School of Medicine, Director of Residency Training Program Cleveland Metropolitan General Hospital, Cleveland, Ohio:

Working Conference for Faculty and Students of Ohio Medical Schools

Dr. Bailas, a participant/faculty coordinator in two AMWA PRRC National Leadership Workshops for Women in Medicine, designed, coordinated and conducted a two-day conference, entitled, "Women in Academic Medicine", in Cleveland, Ohio, October 9-10, 1980 which was attended by 100 faculty, students and residents from all Ohio medical schools, including 13 deans. The meeting had several purposes: to examine issues concerning women and minorities in medicine and the future development of women and men physicians; to identify problem areas for women in academic medicine; to formulate potential solutions for the problems of recruitment of minorities and women as well as their academic advancement; to discuss changes in curriculum; to establish a regional communication network among academic faculty about the problems of women and minorities in academic medicine; and to promote educational equity in medical academia in part by promoting research on the subject.

Planning for the conference began in the summer of 1979 under a planning grant which Dr. Bailas received from AMWA PRRC to explore the feasibility of holding the conference, the first of its kind, to be held at Case Western Reserve University and in Ohio. She enlisted the support of the former dean of the College of Medicine, Frederic Robbins, M.D., and the head of the Department of Psychiatry Sheldon Miller, M.D., who also provided financial support for Dr. Bailas' participation in AMWA PRRC's workshops, granted release time for planning and collaborated closely with her in the initial feasibility study. Dean Robbins also sought support for the conference from the Ohio Board of Regents and the other Ohio schools of medicine and osteopathy. Dr. Bailas organized a small central planning committee which assumed responsibility for the final details of the conference. In addition to funding Dr. Bailas' feasibility study, AMWA PRRC provided consultation, workbooks and handouts, seed support for Dr. Schindler-Rainman, promotional brochures and registration forms, conference workbooks and printing and distribution of the needs assessment questionnaire before the workshop.

Overall evaluations of the two-day workshop were extremely positive. If another workshop were held, Bailas, would repeat the same format but would include more small group discussions.

- j. Rocio A. Huet, Fourth year medical student, University of Michigan Medical School, Ann Arbor, Michigan, now President, American Medical Student Association (AMSA), Chantilly, Virginia:

Minority Admissions to Medical School

Using the AAMC Minority Application Registry (MED MAR), Huet studied a random sample of 100 medical students who applied to medical school in the years of 1976-1977 and 1978-1979, to compare a number of parameters for those who were accepted and those who were rejected. Specifically, she is analyzing those two groups on the basis of the following: grade point-average (GPA); medical colleges admissions test (MCAT); family income, sex, age, and ethnicity. Huet will examine the differences among those who were accepted and those who were not. She will try to follow the course of those who took the MCATs again, and those who continued in school for another year and then reapplied to determine whether they share any common characteristics. She will try to correlate sex and minority status with the rate of reapplication and acceptance using as a control all medical students to see if minorities and females are as persistent or aggressive as other groups, or if they are more successful in gaining acceptance to medical school after retaking the MCATs and/or additional studies. Huet would like to take a closer look at the high risk students who might not be accepted to medical school upon first application, but ultimately, if they persisted could complete medical school. Future research might well entail a closer look at these particular students to determine whether special efforts might be made to get them to reapply to medical school and ultimately to complete their M.D. degrees.

Huet, who is currently president of the American Medical Student Association, will complete the analysis and the writing of this research upon her return to the University of Michigan Medical School in April, and prior to her graduation in June.

- k. Lola Sutherland, M.D., Resident, Department of Family Medicine, University of Minnesota, Minneapolis, Minnesota, National Coordinator for Women Medical Students of American Medical Student Association, March, 1979-March, 1980:

Innovative Approaches to Educational Equity

Sutherland, who is a member of AMSA's task force on Women in Medicine, used AMWA PRRC support for an internship to introduce a mini-leadership workshop modeled on AMWA PRRC's successful National Women in Medicine Workshops to a number of different AMSA regional and national meetings. Sutherland attended AMWA's workshops in Chicago and Denver and was also involved in a Course on Women in Medicine at the University of Minnesota College of Medicine for which she and other students prepared a slide show.

Under the guidance of Dr. Marlys H. Witte, National Director and Coordinator of the Women in Medical Academia Project and Dr. Eva Schindler-Rainman, Organizational Consultant, Sutherland traveled throughout the U.S. to AMSA meetings in Boston, Minneapolis, Albuquerque, San Francisco, and Charleston and to AMSA's National Convention in

March, 1980 introducing the concepts of force field analysis, task analysis, the problems of setting up and conducting effective meetings, raising funds, and networking among women medical students and faculty. These regional meetings focussed on a variety of issues in medical education of particular, though not exclusive, concern to women. Sutherland worked with the local organizers to introduce new approaches, topics and techniques into the medical school curriculum, including how to teach the performance of more sensitive pelvic examinations, health issues such as rape and spouse abuse, the effects of chemical dependency on fetal development, as well as policy setting and establishing curriculum changes in medical school.

The internship also afforded Sutherland an opportunity to spend several weeks in Washington at AMSA's headquarters where she visited the Association of American Medical Colleges (AAMC), attended meetings of the Women's Health Roundtable and prepared testimony for Congress concerning women and health insurance benefits. She attended meetings of the AAMC, AMWA and the AMA and worked with students at all of these national meetings.

Sutherland is currently preparing a resource book for women and medical students with the AMSA task force on women. Her final report for the AMWA PRRC on this experience will be available in the near future.

2. *Comprehensive installation plan for the initiation and development of the "role" of educational research specialist.*

Internship and preceptorship recipients (Activity 1) were assisted in a variety of ways as related in their summaries, to develop their "role" as educational research specialist. In addition, women medical faculty and students acquired specific leadership skills as educational equity specialists at the national and satellite workshops and were encouraged and assisted by us in working within their own institutions to become trainers themselves and to undertake a variety of activities to perpetuate the leadership strategies they learned. AMWA PRRC project staff have worked with selected "change agents" (workshop graduates and their supporters) providing "on call" consultation, a minimal level of financial support, advice and resources, both via telephone and through mailings of educational research training materials. The success of these institutional "change agents" has depended not only on AMWA PRRC's ability to be "catalysts" in their growth and development as independent equity specialists but also on their skills in solving local problems and the home institution's receptivity. Their ability to define strategies, their capacity for self-renewal, overcoming obstacles, and the documentation of their effectiveness have been impressive.

What follows is a list of workshops, courses, seminars, conferences and meetings about women and minorities in medicine on a local, regional, and national basis which we have co-sponsored, fostered, or assisted in one way or another through consultation, seed financial support, resource-linking, print and audiovisual materials, assistance in curricular design and evaluation, and simple moral support. These satellite, regional and local leadership workshops, symposia or courses on women in medicine (Figure 1 maps) organized by former workshop participants and attended by approximately 1300 women:

- a. "Women's Leadership in Medicine Workshop", AMSA national meeting, Denver, Colorado, March 22, 1979, Karen Weihs, medical student at University of Iowa College of Medicine, and Coordinator, AMSA-Women in Medicine
- b. Seminar sequence "Women Physicians: Historical, Professional and Personal Perspectives", University of Colorado and Denver chapter of AMWA, March 22-May 12, 1979, Pat Stranahan, M.D. Vice-President, AMWA chapter and Dana Slauson, M.D., Course Coordinator
- c. "Regional Conference on Women in Medicine", Cornell Medical College, New York, March 24-25, 1979, Jo Boufford, M.D. Director Residency Program in Social Medicine, Montefiore Hospital and Medical Center, Bronx, New York and Lila Wallis, M.D., F.A.C.P., Associate Professor of Clinical Medicine, Cornell University Medical College, New York
- d. "Symposium on Women in Medicine", University of Minnesota, Minneapolis, April 20-22, 1979, Lois Lenarz, medical student University of Minnesota Medical School, Minneapolis
- e. "Academic Leadership Development Workshop", Women's Caucus of the Endocrine Society, Los Angeles, June 13, 1979, Judith Ramaley, Ph.D., Professor of Physiology, University of Nebraska

Medical Center, President-Elect Woman's Caucus Endocrine Society

- f. "Women in Medicine: We're Here to Stay", Student AMWA chapter, Washington University School of Medicine, St. Louis, April 26, 1980, Yolette Brown, medical student, Washington University School of Medicine, St. Louis, Missouri
- *g. "Leadership Workshop for Women in Medicine", University of Alabama, Birmingham, April 19-20, 1980, Sumter Carmichael, M.D., Affirmative Action Officer, Assistant Professor of Psychiatry, University of Alabama, Birmingham, Alabama
- *h. "Women in Medicine Symposium", University of Maryland and AMSA, Baltimore, April 19-20, 1980, Mary Jo Cannon, medical student, University of Maryland School of Medicine, Baltimore, Maryland
- *i. "Minority Women in Science" symposium, National Association of Black Chemists and Chemical Engineers (NABCCE), Washington, DC, May 3, 1980, Linda Meade-Tollin, Ph.D., Women in Science Coordinator, SIROW, Women's Studies Committee, University of Arizona, Tucson, Arizona
- *j. "Artistry in Leadership: Skills and Knowledge", American Psychiatric Association post-graduate course, San Francisco, May 3-4, 1980, Sumter Carmichael, M.D., Affirmative Action Officer, Assistant Professor of Psychiatry, University of Alabama School of Medicine, Birmingham, Alabama
- k. "Women in Medicine and Medical Education in Arizona: Action Planning for the Future", AMWA PRRC and local AMWA chapter, August 28, 1980, Marlys H. Witte, M.D., National Coordinator and Director, AMWA PRRC and Professor of Surgery, University of Arizona Health Sciences Center and Arlene Scadron, Ph.D., Programs Coordinator, AMWA PRRC, Tucson, Arizona
- *l. "Women in Academic Medicine", Case Western Reserve School of Medicine, Cleveland, Ohio, October 9-10, 1980, Maria Bailas, M.D. Director Residency Training, Department of Psychiatry Cleveland Metropolitan General Hospital, Cleveland, Ohio
- *m. "Leadership for Women in Medicine", Searle Center, Duke University Medical Center, Durham, North Carolina, October 31-November 2, 1980, Nancy Milliken, medical student, Duke University Medical Center and Pamela Trent, Ph.D., Department of Psychiatry, Duke University Medical Center, Durham, North Carolina
- *n. "Minority Women in Medicine: Making Change Happen", Searle Center Duke University Medical Center, Durham, North Carolina, October 31-November 2, 1980, Asela Russell, medical student, Duke University Medical Center, Durham, North Carolina and Linda Meade-Tollin, Ph.D., Women in Science Coordinator, SIROW, Women's Studies Committee, University of Arizona, Tucson, Arizona
- *o. "No Place for Sex? Third World Women and Men in Professional Roles, Effects on Interpersonal Relationships--Workshop for Problems and Solutions", Student National Medical Association (SNMA), Harlem State Office Building, New York City, November 27-28, 1980, Lynne Richardson, medical student, Albert Einstein College of Medicine,

New York and Gerald Hoke, medical student, State University of New York Downstate Medical Center

- *p. "Leadership Skills Workshop", focussing on Minority Women in Medicine, Los Angeles senior AMWA branch (physicians in active private practice) and UCLA faculty group, Los Angeles County Medical Association Building, Los Angeles, California, December 12-14, 1980, Isabel Estrada, M.D. OB/GYN Surgery and Audrey Reid, M.D., Pediatrics

*Credit given to NIE Program to Increase the Participation of Women and Minorities in Educational Research

In addition, former workshop participants have organized several other workshops on their own without direct AMWA PRRC assistance in Texas, California, and in Maryland. Extensive summative and formative evaluations have been carried out in nearly all of these offerings. Response to each has been overwhelmingly enthusiastic, and in several instances, tentative plans are in progress to incorporate the materials presented as regular offerings by the sponsoring institutions or in the local regions (e.g. 2nd Regional Conference on Women in Medicine: Tomorrow's Goals Today to be held at Cornell University Medical College and The Rockefeller University in April, 1981 and Artistry in Leadership to be offered at the American Psychiatric Association's annual meeting in 1981).

3. *A National Workshop on Women in Medical Academia for Medical School Administrators was offered in Chicago, Illinois, July 21, 1979.*

This day-long workshop which was held in conjunction with a three-day Leadership Workshop in Educational Equity for Women in Medicine, July 22-24, 1979, was attended by 18 administrators from medical schools throughout the country. They completed sessions on "Making Change Happen", "The Activities of the Women in Medical Academia Project", "History of Women in Medicine", "Sociologic Issues Involved in the Profession for Women", "Statistics on Women in Medicine", "The Legal Basis of Equity", and "The Dynamics of Planned Change". Extensive discussions were held using brainstorming and group planning techniques. Consultations within the group and following the meeting at joint sessions with the Leadership Workshop in Educational Equity for Women in Medicine provided follow through on the group's activities. The purposes of the workshop were to sensitize the medical managers currently in major decision-making and policy-making positions to issues of concern to women, to the talents of women physicians and academicians, and to make them aware of the vast body of information and wide array of activities being carried out to promote educational equity. A workshop workbook and resource manual was provided to the participants who earned CME credit for their attendance at the meeting.

This field-test of a workshop oriented toward administrators provided important information that has been and will be used further in designing regional leadership workshops for women in medicine and other types of conferences using different kinds of materials and different orientations to bring together men and women sharing an interest in making the situation more equitable for women in medical academia.

4. *A national Minority Women in Medicine Workshop was presented in San Francisco, California, December 16-20, 1979.*

Planning the San Francisco workshop, itself a field-test, was initiated at the Chicago Leadership Workshop in Educational Equity in July, 1979 (held in

association with Activity #3). In a joint session designed by Drs, Linda Meade-Tollin, Eva Schindler-Rainman and Marlys Witte, the decision was made at that time to hold two concurrent workshops in San Francisco during the winter, one for minority women in medicine and the second a leadership workshop for women in medicine, similar to the design of the planning sessions in Chicago. This permitted exclusive focus on the ideas concerning minority women but still allowed for an interchange of ideas and problems of mutual concern during joint sessions. Goals of the Minority Leadership Workshop were: to provide basic information and a sense of direction for minority women in medicine, to develop leadership skills and initiate support networks for shaping the future. All sessions of both workshops were open to all participants, but simultaneous sessions did require that participants make a choice in several incidents. The Minority Workshop was attended by 20 women and included representatives from among Blacks, Hispanics, Puerto Ricans, Asian-Americans and Native Americans. Faculty coordinators included prominent Black professors of medicine, a Native-American resident in Orthopedic Surgery and a lay administrator of the Headlands Project, and a Hispanic medical student who is now President of the American Medical Student Association as well as Dr. Linda Meade-Tollin, AMWA PRRC's consultant in Minority Affairs and formerly a recipient of an NIE preceptorship under this grant. The sessions offered were: Making Change Happen, Part I and Part II; the Background of the Women in Medical Academia Project and Its Future; History of Minority Women in Medicine; Sex and Race Stereotype Situations I've Been In; the Tale of 'O'-a sound slide presentation; Handling Stressful Situations Better; Issues on the Front Burner: Minority Recruitment, Admissions, Retention Hiring and Promotion; Combining Career and Family; Facts We Have and Facts We Need to Know; Sharing Our Successes: An Opportunity to Learn from Each Other; Legal and Legislative Update; Simulated Minority Admissions Exercise: Participation and Critique; Tackling the Issues Ourselves: Small Group Discussion; Tackling the Issues with Others: A Dialogue with Medical School Administrators; Power and I: Influencing Upward; Taking Your Meetings Out of the Doldrums; Action Planning for Our Future; Summary Report from Minority Women in Medicine Workshop and Summary Report from Leadership Workshop for Women in Medicine. A detailed discussion of the workshop's design, and account of the contents of each session is being prepared by Dr. Meade-Tollin.

Several of the workshop participants left with plans in hand to design and present local workshops with similar content, format and approach. Medical students at Duke, another group associated with the Student National Medical Association in New York and medical practitioners in the Los Angeles area have organized local support, raised funds and utilized our consultant services to put on three successful workshops focussing on issues of minority women in medicine which were held in November and December of 1980. These experiments showed that the design of the Minority Women in Medicine Workshop held in conjunction with one attended primarily by majority women but focussing in some sessions exclusively on issues concerning minority women seems to be very successful. The exchange of ideas and attitudes on the part of both groups in their joint sessions created a unique mixture of backgrounds and attitudes that made the San Francisco meeting one of the most exciting we have designed. It is not often that these groups find themselves in such close contact for an intensive period, able to explore innermost feelings about their experiences as students, residents, faculty and practicing physicians and about their future goals. The participants discovered that they had much to share which would never have occurred without the opportunity provided by this workshop. AMWA PRRC is also convinced that all leadership workshops in the future should have at least a minority women in medicine component and active minority participation.

5. *Assistance in the design and evaluation of AMWA Continuing Medical Education offerings has been provided to national and regional sponsors of Leadership Workshops and/or Women in Medicine Symposiums.*

As of June 1978 AMWA became an accredited educational institution, the only one predominantly directed by women to certify Continuing Medical Education offerings of many hundreds. This provisional accreditation was renewed in June 1980. AMWA now may offer Continuing Medical Education (CME) credits which are directed at individuals with the M.D. degree and often with specialty board certification and are required in many states for continued licensure. AMWA PRRC staff has contributed to this effort by offering assistance on the research and design of methodology and evaluation procedures so that CME-offerings not only meet the minimum criteria for CME-accreditation but also provide new imaginative approaches to this form of education and additional significant proof of effectiveness. The following is a list of all the CME-accredited in Category I offerings (number of credit hours in parentheses) AMWA PRRC has stimulated or abetted in the 1978-80 period supported in part by NIE:

- a. Seminar sequence "Women Physicians: Historical, Professional, and Personal Perspectives", University of Colorado and Denver chapter of AMWA, March 22-May 12, 1979 (3 hrs--University of Colorado School of Medicine)
 - b. "Regional Conference on Women in Medicine", Cornell Medical College, New York, March 24-25, 1979 (14 hrs--Cornell Medical College)
 - c. "Symposium on Women in Medicine", University of Minnesota, Minneapolis, April 20-22, 1979 (14 hrs--University of Minnesota Medical School)
 - d. "Academic Leadership Development Workshops", Women's Caucus of the Endocrine Society, Los Angeles, June 13, 1979 (3 hrs--American Medical Women's Association)
 - e. "Leadership Workshop for Women in Medicine", University of Alabama School of Medicine, Birmingham, April 19-20, 1980 (18hrs--University of Alabama School of Medicine)
 - f. "Women in Medicine Symposium", University of Maryland College of Medicine and AMSA, Baltimore, April 19-20, 1980 (9½ hrs--American Medical Women's Association)
 - g. "Artistry in Leadership: Skills and Knowledge", American Psychiatric Association post-graduate course, San Francisco, May 3-4, 1980 (16 hrs--American Psychiatric Association)
 - h. "Leadership for Women in Medicine", Searle Center, Duke University Center, Durham, North Carolina, October 31-November 2, 1980 (20 hrs--Duke University Medical Center)
 - i. "Minority Women in Medicine: Making Change Happen", Searle Center Duke University Medical Center, Durham, North Carolina, October 31-November 2, 1980 (20 hrs--Duke University Medical Center)
 - j. "Leadership Skills Workshop", focussing on Minority Women in Medicine and UCLA faculty group, Los Angeles County Medical Association Building, Los Angeles, California, December 12-14, 1980 (15 hrs--American Medical Women's Association)
6. *An annual project newsletter has been distributed to all medical school deans, all medical school libraries and the National Library of Medicine, women in medical academia and representatives of relevant impact groups.*

The 20-page newsletter included the following sections:

A lead story on "Making Change Happen"--an exposition of the strategy of the Women in Medical Academia project

"Room at the Top" - Doctors Wanted: Women Need to Apply--promulgation of top level medical education job offerings

"Research Briefs"--for aid in keeping up with the literature and exposure to new ideas

"Legal Briefs"--highlighting recent legal decisions affecting women faculty members in medical schools

"Women Doctors in the News"--focussing on women role models and mentors

Listings of support networks and school contact groups

Suggested reading, viewing, and listening--identifying up-to-date resources for research in medical education

Grant programs--deadlines

Meeting techniques

Media images of women physicians

Announcements of workshops on educational equity and project solicitations

The newsletter proved an extremely valuable vehicle for reaching the target population as well as male administrators to convey news of the project, discuss issues critical to women in the professions, particularly in medicine, to inform them of project activities and training sessions and of their colleagues' achievement. We have had numerous requests for the newsletter and many compliments on its format, design and content.

Section 5: Evaluation Procedures

Extensive formative and summative evaluation was used throughout the entire project. The following is a description of evaluation procedures and strategies and the type of data collected and analyzed.

A. Central Project Administration

1. Gantt-like Calendar of Events

This form was used throughout the project as an ongoing time table to assure that major activities took place as scheduled.

2. Gantt-like Chart for Staff Responsibilities

This chart was used throughout the project to define staff responsibilities and duties in relationship to the scheduled time table.

3. *Log Sheets*

These sheets were used to monitor continuously the activities of the staff and to see if projects were being implemented as planned.

4. *Activity Checklist*

These checklists were used to delineate each step which needed to be taken to accomplish the various project's activities.

5. *Progress Reports*

These reports were regularly compiled throughout the two years of the project and transmitted on schedule to the National Institute of Education Staff to describe the status of all ongoing project activities.

6. *Documentation Log*

These sheets were used to monitor daily incoming requests, calls, letters and general communications with others.

B. Workshops

National Workshop for Educational Equity for Medical Deans and Department Heads, July 21-22, 1979, Chicago, Illinois
(*forms not used)

National Leadership Workshop for Women in Medicine, July 22-24, 1979, Chicago, Illinois

Minority Women in Medicine and National Leadership Workshop for Women in Medicine, December 16-20, 1980, San Francisco, California

1. *Application Form*

Workshop application form was designed to provide biographical background, leadership experience and participant's entry views regarding the three most important ways to achieve educational equity.

2. *Preliminary/Post Cognitive and Skill Self-Assessment**

This form was completed by the participants at the start of the workshop. Using a six-point rating scale it was designed to identify entry behavior leadership skills and personal workshop objectives. At the completion of the workshop the participants again rated their own terminal behavior skills and knowledge as related to workshop objectives. Results were compared to the preliminary participant appraisal form. This assessment also asked participants what area they would like to study further and in what fashion.

3. *Summary Evaluation by Expert Consultants*

Workshop processors continually evaluated workshop process and content and presented written and oral communications during and at the conclusion of the sessions.

4. *Behavioral Activities Checklist--Baseline and Followup**

This self-administered form was used as a pre-assessment and a three-month followup assessment to determine specific behavioral changes with regard to educational equity for women in medicine as a result of workshop participation. Twelve-18 month followup is still in process.

5. *Final Evaluation Form*

This form was used at the conclusion of the workshop. Its purpose was to assess what the workshop graduates thought were the most and the least helpful parts of the workshop, what information, experiences or activities they still needed or wanted in future workshops and what general comments or recommendations they wished to make. All questions were open-ended.

6. *Long-term Workshop Followup Questionnaire*

This two-page form for long-term evaluation was sent to all graduates of National Leadership Workshops and Minority Women in Medicine Workshops. It includes questions on the gains that the graduates perceive they have made from attending the workshops; the way they have implemented or enhanced educational equity for women in medicine; personal promotion or advancement or distinctions awarded to the participant. It also queries the graduates on those topics that they would like to see covered at future advanced leadership workshops, offers the opportunity to ask for assistance from us with any of their activities, and ascertains their ideas on the most important ways to promote educational equity for women in medicine.—The questionnaire also asks about ways they could share their successes and failures in planning or promoting activities to enhance educational equity and collaborate.

7. *Critical Incidents*

These are examples of what graduates are accomplishing in the area of educational equity since the time of the workshop. The critical incidents are gathered from newspapers, journal or magazine sources, meetings, conferences, and written or telephone communications. Phone calls to and from participants or their colleagues are also used to gather this information.

C. Internship, Preceptorship and Grant-in-aid Program

1. *Preliminary Self-Evaluation Scale*

This form consisted of four parts designed to evaluate the impact of the internship, preceptorship and grant-in-aid on trainees' and researchers own evaluation of their personal attitudes, knowledge; and skills. The respondents were told that they would be given a similar questionnaire at the end of the program. The first part asked the trainee to indicate the extent to which they agreed or disagreed with certain descriptions of the role of women M.D. faculty as leaders and perceptions of them as researchers and practicing physicians and the relationship between work and their families. The second part consisted of three questions which tested familiarity with several broad areas of educational equity and educational research. Part three evaluated the comfort of the respondents with their own performance and skills in a variety of areas affecting their ability to undertake educational research and to move toward equity in academic medicine. Part four asked the trainees to describe the things they would most like to obtain from the program.

2. *Final Self-Evaluation Form*

This form also consisted of four parts, three of which were exactly the same as the preliminary self-evaluation form. Part four consisted of three questions. They included areas for further study, the specific topics, and how they would proceed; also, the kind of financial support they would need and whether they would do this on their own.

3. *Participant's Daily Log and Activity Checklist*

This form included 16 areas in which they were to check the relevant activities in which they were engaged, including such items as reviewing literature on educational equity, acquiring skills and knowledge useful in educational research and management, conducting research on educational equity, and conferring with the preceptor, etc.

4. *Participant's Weekly Log and Progress Report*

This form consisted of five areas in which they were to provide a brief description and set of responses to be kept on a weekly basis. Covered were activities in process, new ideas or approaches to consider for achieving educational equity, implications for change, new professional associations initiated with the names, addresses and phone numbers, list of the new resources to consider.

5. *Evaluation of Preceptor*

This form consisted of two parts and was used to indicate perceptions of the quality of teaching and supervision received during the program by rating their preceptor's performance in 28 different areas. They used a six-point

rating scale ranging from unsatisfactory to superior. Some of the questions included the quality of teaching, enthusiasm about teaching and the subject, awareness of current literature and educational equity, encouragement of trainee to develop new ways for identifying problems, etc. A second part of the evaluation asked for a written statement evaluating the special strengths and weaknesses in the teaching and supervising of this preceptor.

6. *Trainee Achievement Form*

This form was sent to the preceptor for her evaluation of the trainee's performance and levels of attainment. The same scale from unsatisfactory (1) to superior (6) was used. It included 27 questions and a second part that permitted the preceptor to comment on the special strengths and weaknesses observed in the particular trainee.

7. *Overall Final Evaluation*

Each grantee was also asked to fill out a 15 question form with a range from 1 (poor) to 5 (excellent) for evaluating the program itself. It asked them to rate the overall value of the program, what they learned by participating in the program, the adequacy of financial support and in addition permitted some open-ended questions for comment and recommendations.

8. *Critical Incidents*

These are examples of what graduates are accomplishing in the area of educational equity since the time of the workshop. The critical incidents are gathered from newspapers, journal or magazine sources, meetings, conferences, and written or telephone communications. Phone calls to and from participants or their colleagues are also used to gather this information.

Section 6: Evaluation Results and Analysis

A. *National Workshop in Educational Equity for Medical Deans and Department Heads, July 21-22, 1979 and National Leadership Workshop for Women in Medicine, July 22-24, 1979, Chicago Illinois Summary*

The Administrator Workshop (July 21-22, 1979) was well received by those who attended, and discussions were lively and productive. But one obvious problem was the inability to attract large numbers of administrators to the session because of their crowded schedules and a conflict with a major dean's meeting. Many who did not attend sent their best wishes or a representative on their behalf. Obviously it would have been preferable to have the person in direct responsibility attending.

In the National Leadership Workshop which followed, preliminary and final participant self-appraisal on a six-point rating schedule scale to assess skill and knowledge gains showed a highly significant overall increase in the mean total score on an 18-item inventory at the end of the workshop c.f., (mean \pm SE), pre- 47.4 ± 1.51 , post- 73.1 ± 1.71 , maximum possible score 108, minimum 18, ($p < .001$). Greatest increases were found in familiarity with the aims, strategies and activities and results of the Women in Medical Academia Project; identifying new directions for research and the action programs in medical educational equity; identifying ways in becoming an effective committee member and chairperson. In addition, participants showed greatest increase in confidence measured as the degree of comfort about exit skills in the following areas: utilizing effective strategies for enhancing their "power" situation; formulating goals, strategies and action plans for achieving educational equity in medicine, effectively utilizing available resources at their institution to promote educational equity; and conducting seminars, courses or workshops for enhancing educational equity; and conducting seminars, courses or workshops for enhancing educational equity for women in medicine.

In the final workshop evaluation, participants indicated the following parts of the workshop, were most helpful: brainstorming sessions, force-field analysis, statistics on women in medicine, report of successful change efforts, legal presentation and sharing of their experiences with other participants. Those aspects less helpful to some of them included: change planning sessions and reiteration of past inequities and sex stereotyping. The information, experiences and activities which they would like to have provided now or in the future workshops were: feedback on success of other participants, list of available resources, information of affirmative action efforts made by selected institutions, list of available women M.D.'s by specialty, position openings, preknowledge of registrants, and still more opportunity for feedback and discussion. General comments or recommendations on the workshop included such remarks as: "Involvement of more medical students in these exercises would have been helpful"; "Very much worthwhile"; "Great meeting...I will try to encourage others to attend one of these"; "More real deans or department heads... not just their representatives"; "Valuable skills taught in a superb fashion"; "It was a valuable and creative experience which will definitely help me become more effective"; and "Probably the most dynamic meeting I have attended with information that is infinitely adaptable to different situations-- academic, educational, personal..."

A particularly sensitive area for the administrators was the discussion of sex stereotyping and inequities in medicine. The response to this should not be the elimination of such discussions but to use the results of this field-test to develop ways of introducing these materials in a less threatening way. We also concluded that it would be best to schedule such a meeting

in connection with another major meeting of administrators or to include it as part of local and satellite workshops on educational equity for which administrators are part of the planning committee. In nearly all satellite workshops, administrators have participated directly in the planning or have contributed successfully in other ways.

B. *Minority Women in Medicine Workshop, December 16-20, 1979 concurrent with National Leadership Workshop for Women in Medicine, San Francisco, California Summary*

Preliminary and final participant self-appraisal on a six-point self-rating scale to assess skill, knowledge and abilities showed a highly significant increase in the mean in the 18-item inventory at the end of the workshop *c.f.*, (mean \pm SE), pre- 49.3 ± 2.73 , post- 77.8 ± 2.20 , ($p < .001$). The greatest increases were found in familiarity with the following: identifying the aims, strategies, activities and results of the Women in Medical Academia Project; identifying ways of becoming effective committee members and chairpersons; examining the process of change and how to intervene successfully to make change happen; defining research and action programs in medical educational equity. Areas in which there was less but highly significant change from the pre- to the post-assessment included: understanding the dynamics of the client/consulting working relationship; describing the process and major steps involved in applying for grants and contracts, and describing the sex and race role socialization process and its effect on potential women and minority women physicians. On those items measuring degrees of confidence the preliminary and post self-assessment evaluation showed the greatest improvement in the degree of comfort on the following items: utilizing effective strategies for enhancing your "power" situation; formulating goals, strategies, and action plans for achieving educational equity in medicine; effective handling of the media so as to enhance the image of women and minorities in medicine; and conducting courses, seminars or workshops for enhancing educational equity for women and minorities in medicine.

The final evaluation of what was the first national Minority Women in Medicine Workshop indicated that the most useful parts of the workshop were: the practical or "how to" sessions such as "Handling Stressful Situations Better", "Making Change Happen", "Tackling the Issues Ourselves", "Action Planning for the Future", "Taking Your Meetings Out of the Boldrums", "Power and I", and "Influencing Upwards". But participants were also very enthusiastic about the sound-slide show "the Tale of 'O'"; a number of them were very interested in the "Sex and Race Stereotype Situations I've Been In"; the History session and the Media sessions. The Simulated Minorities Admissions Exercise which was held during an evening session had the greatest impact and lasted for several hours after it was formally concluded. Asked what parts of the workshop were least helpful, many of the participants responded that they couldn't choose and found the entire workshop was useful. But those who did respond varied considerably in what was less useful. A few found the History session less useful, others found the Sex-role and Race Stereotyping Situations less useful. Others felt they did not need the information on Biomedical Research. Still others thought they knew enough about the Legal Basis of Equity. As to those things that people would most like to have provided in

future workshops the responses ranged from including more time, for the discussion of individual ideas following the Brainstorming session, Assertiveness Training, learning to survive as a minority woman in medical school, discussion of how a minority person can present their cause to the unsympathetic ear; problems of balancing family and professional responsibilities; sessions about time limitations and how minority women can work in different organizations to effect change, also maintaining contact with one another, more mixed activities between the majority and among the participants at the Leadership Workshop for Women in Medicine and Leadership Workshop for Minority Women in Medicine and more joint sessions.

Comments from the final evaluations for the Minority Workshop included: "This conference was a Christmas gift from my family-- it was the best gift I have ever received"; "Excellent, a pleasure to attend"; "Please have more!"; "Reinforces my opinion that women are pretty fantastic creatures--I met some I'd like to followup on as personal friends"; "Turned out excellent as far as I am concerned" and "Some of the best experiences were personal discussions held throughout the day". Several of the more useful suggestions for improving the workshop were that the minority workshop component be included in the total program, especially the Simulated Minority Admissions Exercise with which minorities say they are already familiar. But holding all sessions together might require a longer workshop, and some other minority members argued that there are certain things important for the minority women to share that might not be said if all sessions were held together. Almost all participants agreed and staff observed that the mixture of minority and other women made for an extremely lively and interesting workshop in which an unusual electricity was operating different from other workshops. Minority women as a group clearly have a great deal to share with their colleagues in medicine, and all future workshops should include substantial minority components. Most significant, in barely a year following the San Francisco workshop, three large regional workshops with exclusive or large minority components have been organized in New York City, Los Angeles, and Duke University, North Carolina by minority participants who attended the San Francisco meeting.

C. Internship, Preceptorship, Grant-in-Aid Program Evaluation Summary

The major goals of the grantees were to complete specifically designed research projects. In some cases, AMWA PRRC provided support for the initial phases of the research, while in others, the support helped the grantees complete data collection or analysis. All of the participants who ranged from medical students to junior faculty members reported gaining greater expertise in doing research in the field of educational equity. Their methods included case studies, surveys, action research. The research generally was policy oriented with the intention of providing hard data or course materials that would buttress or provide the rationale for changes in curriculum and practices in medical education. In conducting their research, most grantees developed an effective working relationship with preceptors and role models, although in one or two cases, the preceptors did not meet the

needs of the grantee. In several instances, the grantees found that they could work independently using telephone consultation, while still others turned to AMWA PRRC for consultation, technical assistance in conducting surveys, analysis and reporting of results. They became part of educational and professional networks and further developed and practiced specific skills in research, leadership and in verbal and written communication. Within the constraints of time, a low level of funding (generally less than \$1000 each) and competing professional activities, their accomplishments were truly remarkable.

In evaluating the experience, a few grantees said that their financial needs exceeded the support we were able to provide, but we found that by providing only partial support for the projects, the grantees were stimulated to develop some of the grantsmanship skills that must be addressed by educational researchers. Despite the limitation of funds, preliminary evaluations indicate that all of the participants used the money effectively, and all of them report considerable improvement in their self esteem, skills and knowledge about research in educational equity. The detailed descriptions (p. 3) of each project indicate that this approach has been cost-effective. Several final products and reports have been excellent, while others need revision and/or completion. All are directly relevant to educational equity generally or specifically in medical education and provide information or original insight in neglected areas.

Final evaluation is not yet complete for the internships, preceptorships and grant-in-aid recipients.

Partial List of Media Coverage of AMWA PRRC Women in
Medical Academia Project and/or Professional Staff

1. St. Petersburg Times, November 13, 1978, Project Seeks to Develop Potential Leaders in Medicine and Struggle of Equity, Rewards of Dilligence Have Been Hard
2. American Medical News, December 1, 1978, Women MDs eye on bigger role in medical society activities and Three women MD-academics, three success stories & women physicians take aim at medical male power structure
3. Denver Post, March 1979, She Decries 'Old Boy' Medicine Network
4. Medical World News, June 11, 1979, Vol 20, No. 12, Women Physicians-- Catalyzing Great Change
5. The Wall Street Journal, July 2, 1979, Labor Letter, Women Doctors
6. American Medical News, August 17, 1979, Women Study Leadership Techniques
7. New Physician, September 1979, 28 (8) AMWA Tallies Women's Gains, Losses in Medicine
8. Seventeen Magazine, November 1979, Staying Well: Calling the Shots
9. Dixie of the Times--Picayune, January 6, 1980, (New Orleans, Louisiana), Why are Doctors More Suicide Prone? by Milton Rockmore, View from the Top (syndicated article appeared in 60+ newspapers nationwide)
10. Savvy, February, 1980 Doctors Do Well, Male Doctors Do Better by Susan Klebanoff
11. Medical News and International Report, February 18, 1980, What Women in Medicine Want Most: Power

. . . and over 50 others

PRESENTATIONS

1. Chairman of Workshop, Power and Women in Medicine, November, 1978, AMWA Annual Meeting, St. Petersburg, Florida--Dr. Marlys H. Witte
2. Regional Workshop on Women in Medicine, invited speaker on Statistics Update, Cornell Medical College (CME accredited), March 24, 1979, New York City--Dr. Marlys H. Witte
3. Student Business Section Women in Medicine Workshop sponsored by the AMA, July 22, 1979 in Chicago, Illinois--Dr. Marlys H. Witte
4. Attitudes in the Medical Academic Community Toward Women Physician Leaders, AAMC Annual Meeting, October 27, 1980 in Washington, DC--Dr. Arlene Scadron
5. Women Physicians as Leaders in Medical Academia: An Attitude Survey presented at Six Annual Conference of Women and Education of the American Educational Research Association, December 8, 1980 in Asilomar, California--Dr. Arlene Scadron
6. Presentations during AMWA PRRC workshops, 1978-1980.

PUBLICATIONS

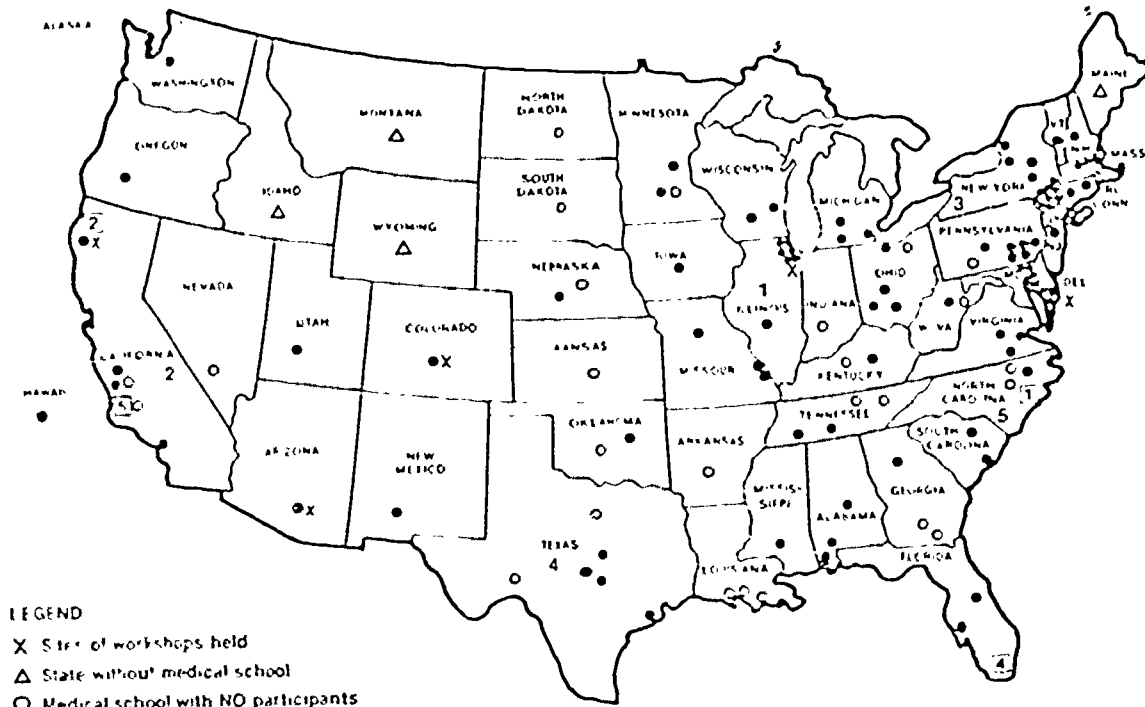
1. Scadron, A. (ed): Women in Medical Academia Newsletter, # 3 Winter, 1979.
2. Witte, M.H.: Editorial-"Let the Experiment be fairly made..." J. Amer. Med. Assoc. 239: 2276, 1978.
3. Farrell, K., M.H. Witte, M. Holguin, and S. Lopez: Women Physicians in Medical Academia-A National Statistical Survey. J. Amer. Med. Assoc. 241: 2808, 1979.
4. Scadron, A.: Turning Dreams into Reality: Medical Women Learn How to Become Leaders. New Directions for Women, May/June, 1980.
5. Witte, M.H. and A. Scadron: Editorial-First Among Unequals. Hosp. Pract. 15: 11, 1980.
6. Scadron, A.: AMWAs Experiment in Planned Change: A Report on the Women in Medical Academia Project. J. Amer. Med. Women's Assoc. 35: 299, 1980.

Section 7: Conclusions

The ability to produce change - Webster's definition of power - requires three major ingredients. The first is a sense of direction, knowing where you have been, where you are, how you got there, and where you're going. The second is the acquisition of diverse skills for attaining the goals of change. The final ingredient is the development of an underlying support system both within and external to neutralize negative forces and bolster positive forces for change. The Women in Medical Academia Model has simultaneously undertaken coordinated and comprehensive research and action programs directed at all three of these ingredients of change.

All of the activities of the project were designed to produce changes in individuals and ultimately in institutions that would contribute to the development of educational equity. The individuals who accepted research internships and preceptorships or grant-in-aids--for the most part a new group of educational researchers--became familiar with new approaches and methodology, developed confidence through new knowledge and the experience of using new tools and techniques, generally experienced positive mentor relationships with strong role models, acquired or improved skills of written and verbal communication, solved problems imaginatively, built relationships and learned to evaluate projects and research results. For the most part, they produced or are producing high quality research products. And in the course of this experience, the medical educational institutions in which they study or work have begun to incorporate some of their proposals and have seen the development of more effective relationships and networks among women faculty, residents and students. In many cases those who have acquired specific leadership skills as educational equity specialists at the national and satellite workshops have returned to their locales to transfer knowledge to others and to demonstrate and disseminate the programs and products developed with AMWA PRRC and their colleagues. In the process they are touching sympathetic (and occasionally unsympathetic) men and women whose support for change toward educational equity is critical to its attainment. That the brief experience of the workshop has catalyzed many participants into action is encouraging. To have long-range impact, a larger, more diverse pool of change agents must be trained and motivated. Our continued experiment in planned change is predicated on the belief that a national "grassroots change agency" committed single-mindedly to the goal of educational equity for women in medicine is the most efficient and effective mechanism to achieve this goal. This confidence in the efficacy of voluntary associations to correct social inequities has been eloquently affirmed by noted political philosopher Hannah Arendt as the "specifically American remedy for the failure of institutions, the unreliability of men, and the uncertain nature of the future".

Fig. 1



LEGEND

- X Site of workshops held
- △ State without medical school
- Medical school with NO participants
- Medical school with participants
- 1-5 Top ranked states with largest number of participants
- 1-5 Top ranked schools with largest number of participants

Participation In AMWA's Six National Leadership Workshops 1977-1981 by Medical School by State



LEGEND

- Leadership workshop
 - Sponsored national ● Held ○ Planned 1980
 - Co-sponsored regional ■ held □ Planned 1980
- Course or Women in Medicine ▲ held
- Grants and preceptorships awarded △
- Medical school M
- Medical school workshop or course *

Sites of AMWA Sponsored and Co-sponsored Leadership Workshops, Women in Medicine Courses, and Small Educational Research Grants and Preceptorships 1977-81