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ABSTRACT

The projects suggested in this collection of activities have a dual emphasis on: (1) inquiry by the students, using methods of social science, into health and health care in the community; and (2) the communication by the students of their observations and conclusions to the community at large or to selected groups or agencies within the community. Each project suggests ways students might conduct an inquiry into a particular subject area and also suggests ways to interpret findings for the community. (Author/RE)

BIOMEDICAL SOCIAL SCIENCE

UNIT VII

HEALTH IN THE COMMUNITY:
INQUIRIES AND APPLICATIONS

INSTRUCTOR'S MANUAL

REVISED VERSION, 1977

THE BIOMEDICAL INTERDISCIPLINARY CURRICULUM PROJECT

SUPPORTED BY THE NATIONAL SCIENCE FOUNDATION

Any opinions, findings, conclusions or recommendations expressed herein are those of the author and do not necessarily reflect the views of the National Science Foundation.

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PREFATORY NOTE TO THE INSTRUCTOR:

This unit is considerably different from the preceding units of Biomedical Social Science. There is no single subject area, there is no Student Text, there are no individual lesson plans and there are no lists of specific behavioral objectives. Instead, there are several "projects" from which you and your class can select one or more for completion during the time you have left to spend together. The unit is designed so that your students can put into practice some of the skills learned in preceding Social Science units and can review some of the content of Biomedical Science; it is also designed so that you can use it in any period of time ranging from a few days to a month or longer.

The projects suggested in this unit have in common a dual emphasis on (1) inquiry by your students, using the methods of social science, into health and health care in their community, and (2) communication by your students of their observations and conclusions to the community at large or to selected groups or agencies within the community. Each project suggests ways in which students might conduct an inquiry into a particular subject area, and also suggests "applications," or ways in which students might provide useful information to their community.

Any of these projects can be conducted (with appropriate limitations) by an individual, by a small group, by a larger group or by the whole class. If you have little time, it will be possible to scale down one of the projects so that it can be completed in the time remaining. If you have more time, you might conduct one large-scale inquiry or several smaller ones, one after another. Some projects might be conducted in the classroom on a class-wide basis concurrently with others conducted in the field by individuals or groups.

These projects are interdisciplinary in content, and they can be conducted in the Social Science class alone or in two or all three of the Biomedical classes. If Science Unit VI has been completed, or is scheduled for completion before the end of the school year, then you and the Science teacher might collaborate in teaching one or more of the projects in this unit, using all the class time normally allocated to both classes.

Each project calls for the use of at least one method of inquiry that has been taught in an earlier Social Science unit. In selecting projects and methods of inquiry, you should consider your students' previous experiences with and reactions to these methods. For example, if your students are fed up with questionnaire surveys, then it would be advisable either to avoid projects in which such surveys are suggested or to modify such projects so that students can investigate the same subject areas with different methods of inquiry.

ORGANIZING THE UNIT:

This unit, unlike the other units of this course, is presented in a nonsequential fashion. You and your class will need to decide what things to do and in what order to do them. It is recommended that you involve your students in the decision-making process. An important part of the process of scientific inquiry is deciding what to inquire into and how to inquire into it; and an important part of the process of applying scientific knowledge is deciding whom to communicate with and how best to get one's message across. This unit should allow your students to experience, with your guidance, the entire process of inquiry and application--including the making of decisions.

To begin the unit, you might discuss with your students the kinds of things they might investigate and the methods of inquiry they might use. From students' responses you should be able to find out which of the projects in this unit your students will be most highly motivated to conduct.

Next, you might discuss each of the likely-looking projects separately, beginning the process of narrowing down the subject area and the objectives of inquiry and application. During this phase of the discussion it will probably become clear that

your class has time (and energy) for a certain number of projects; it will then be appropriate to try to reach a final decision on which projects will be undertaken, and which students will be involved in which projects.

When these assignments have been made, you might meet separately with the students working on each project for the purpose of narrowing the subject area, elaborating the objectives, identifying resources, assigning tasks, setting schedules and agreeing on methods of evaluation.

From that point on, you should be able to work in this unit as a troubleshooter and facilitator. This is one unit in which the students, not you, will be called on to do most of the work.

SUBJECT AREAS:

The subject areas covered by one or more projects in this unit are listed below.

Preventive health practices	
individual	Project 1
community	Projects 2,3,4
family and home	Project 6
elementary-school children	Project 7
Health care delivery	
community	Project 5
society	Project 8
Health care training	
community	Project 9
Health care jobs	
community	Project 10
Social aspects of health care in the community	
economic	Project 11
political and organizational	Project 12
sociological	Project 13
cultural	Project 14
psychological	Project 15
ethical	Project 16
ecological	Project 17
Trauma, medicine and the law (see Science Unit VI)	Project 18

The subject area of each project is briefly described (but not so briefly as above) in the Synopsis that begins each project in this book. The subject area is more fully discussed in the Suggested Inquiries section of each project.

OBJECTIVES AND EVALUATION:

In preceding units, each lesson has included fairly specific behavioral objectives for students' activities in the classroom and inquiries in the field. Objectives for performance of verbal skills have been omitted, since you are the best judge of your students' existing abilities and needs in that area.

In this unit there are no lists of specific objectives. However, for each project there is a section headed "Objectives" in which are listed general kinds of objectives--both for inquiry and for application activities--which are appropriate to the project. Before your students undertake any project in this unit, it is recommended that you and they agree on a list of specific objectives for the project and on the means by which you and they will evaluate their progress toward those objectives.

Three general observations might be of help to you as you guide the class through this process. First, the inquiry half of each project is intended primarily to give students further experience in using one or more methods of inquiry introduced in earlier units. Objectives for the inquiry half of the project should therefore reflect your estimation of the learnings that need to take place. For example, if students showed a particular weakness in using one method of inquiry, then objectives for use of that method should stress the remediation of that deficiency.

Second, the application half of each project is intended to give your students experience in effective communication of useful information. The application in each project will require a presentation of facts--either facts that your students have discovered through original research (e.g., by interviewing members of the community) or facts that they have assembled and organized from other sources (e.g., in compiling a handbook of preventive health measure for use in homes in the community). A major kind of objective for such a presentation should be that students present not only the facts as they understand them, but also the limitations inherent in the fact-finding process: the possible sources of error in the method of inquiry used. Where the information presented does not proceed from the students' original research, the presentation should also include documentation: the sources of the information used and--especially if these sources are likely to be controversial--the students' reasons for believing them to be useful sources.

Third, the application half of many projects will require not only the presentation of facts, but also a presentation of your students' recommendations for solving problems or making changes that they believe will improve health or health care in their community. Such recommendations will necessarily include value statements. A major objective for such recommendations should be that students' value statements be presented clearly, with supporting evidence and with supporting arguments proceeding from value principles that will be shared by the majority of the community.

In general, each project in this unit is intended to allow your students to get information out of their community, to analyze that information and decide what to do about it, and to make that information useful by returning it to the community in an appropriate form and in an appropriate manner. The usefulness of such a project both to your students and to their community will be vitiated by sloppy work in any of these three areas; the primary objective for students working on each project should be to see that that does not happen.

RESOURCES:

Each project includes a Resources section, which lists Biomedical Social Science Lessons in which students have encountered the methods of inquiry suggested for the project. These are not the only resources that you or your students will need; they are, however, the most basic. These citations will enable you to discover quickly which of the past units of Social Science are reviewed by each project described in this book.

Another important resource is the Biomedical Science Student Text. Many of the projects described in this unit are directly related to particular units of Biomedical Science, and these projects cite the appropriate Science units. However, it is up to your students to locate the material they need, both in the Science Student Text and in other sources that may be available to them.

Depending on the subject area to be investigated, students will be able to use a variety of kinds of outside resources, including textbooks, trade books, professional journals and magazines. You might be able to help by assembling a collection of appropriate resources in the classroom--especially resources that are not likely to be available to students in libraries, such as medical journals and textbooks. The Science teacher will be able to provide a list of references appropriate to particular health topics (listed in the Science Teacher's Manual for each unit). Useful journals might include the Journal of the American Medical Association, New England Journal of Medicine, Medical World News, Science and Scientific American.

ADVANCE PREPARATIONS:

Each project in this book includes an Advance Preparations section. The preparations required might include (1) writing a letter of introduction that your students can present to people with whom they will interact during the inquiry; (2) inviting guest speakers who can give your students useful information; (3) reproducing materials that students have developed; (4) helping students gain access to local media outlets, such as newspapers, radio and television; (5) helping students assemble supplies and equipment that they might need for presenting their observations and conclusions; or (6) getting the help of outside "consultants" who can help your students improve the presentation of their observations and conclusions.

APPLICATIONS:

Each project in this book includes a Suggested Applications section listing audiences with whom your students might seek to communicate and, in some cases, methods of communication that they might be able to use. Your students' applications of their observations and conclusions should not be limited by the suggestions provided in this book. Students should have the opportunity to use whatever resources you can put at their disposal for this purpose: film, videotape, public meetings, visual displays, dramatic performances--any medium of communication that your students can use or, in a reasonable time, learn to use.

It is recommended that half the time devoted to each project be given to the application of what has been learned during the inquiry. The value of each project, both to your students and to their community, will be greater if students are able to see that their work has consequences, not only on their report cards, but also in the real world surrounding the school. Obviously the value of such consequences will be dubious at best if the students' facts are wrong, their analysis incoherent or their value statements unacceptable to the community at large. Students should undertake applications at which they have a reasonable chance of succeeding.

PROJECT 1: PREVENTIVE HEALTH PRACTICES--INDIVIDUAL

SYNOPSIS:

Students use survey research methods (questionnaires or unstructured interviews or both) to learn what individuals in the community do to prevent any of several kinds of ill health.

OBJECTIVES:

Possible objectives include the abilities to define a target population, to draw a sample, to prepare survey questions, to design a questionnaire or prepare for an unstructured interview (or both), to interview subjects, to tabulate and analyze questionnaire data or synthesize unstructured-interview responses (or both), to generalize from data and to present conclusions in a useful form.

RESOURCES:

Biomedical Social Science Unit I, Lessons 3-6, 17-18; Unit III, Lessons 22-25; Unit IV, Lessons 17-20; Unit VI, Lessons 20, 29-34.

ADVANCE PREPARATIONS:

This project should not require extensive preparations. You might wish to shorten the list of possible inquiries, but students should participate in the selection of inquiries to be conducted as well as the formulation of objectives. If students use questionnaires, you will need to have them reproduced.

Note: Project 3 is a follow-up activity based on the results of this project and Project 2. These three projects should be considered together.

SUGGESTED INQUIRIES:

Each of these suggested inquiries is related to the content of one unit of Biomedical Science; the corresponding Science unit is listed at the end of each inquiry below.

A. Questionnaire: Why Do People Smoke? Before developing survey questions students should review their thoughts about what influences human behavior (see Social Science Unit IV) and their knowledge of drug addiction (see Science Unit IV). Since tobacco (nicotine) is addictive, students might wish to rephrase the question, "Why do people start smoking?" or even, "Why don't people stop smoking?" Identification questions should enable students to generalize about the kinds of people (in their sample) who smoke and the kinds who don't smoke. Other questions might elicit information about the length of time respondents have smoked, the number of times they have quit or the length of time since they quit, the number of cigarettes smoked per day and so on. (Science Unit I).

B. Unstructured Interview: How Have People Stopped Smoking? Before conducting this inquiry students should investigate methods of stopping smoking; these include group therapy, special filters, hypnotism and a variety of other techniques--including just plain quitting. Follow-up questions should elicit information about other methods of quitting that the respondent has tried, costs (if any) of methods tried, how much the respondent smoked, how long it has been since the respondent quit, what motivated the respondent to quit, how others might be motivated to quit and so on. (Science Unit I)

C. Questionnaire: What Do People Eat? Students should provide respondents with a form on which they record their diets over a period of a week or so. Students might also construct a table, which respondents could keep, listing approximate nutritive values of several foods. Sources of information include U.S.D.A. Home and Garden Bulletin No. 72 and Bones and Church, Food Values of Portions Commonly Used (11th ed.), Philadelphia, J.P. Lippincolt (1970). See also Science Unit II, Lessons 29-31, 37-39. Identification questions should enable students to categorize respondents according to any variables that they think might be correlated with diet--age, sex, socioeconomic status, etc. (Science Unit II)

D. Unstructured Interview: How Have People Changed Their Diets To Prevent Disease? Students should attempt to learn what changes respondents have made in their diets for health reasons. (Obesity is a condition of ill health; failure to be as skinny as a fashion model is not. Reducing diets should therefore be scrutinized for relevance, since excessive or poorly designed dieting may be bad for a person's health rather than good for it.) Students should also attempt to learn what motivated respondents to change their diets and how they think others might be motivated to undertake similar changes for health reasons. (Science Unit II)

E. Questionnaire: How Much Exercise Do People Get? Before preparing a questionnaire, students should investigate the opportunities for exercise that are available in the community--gym programs, jogging, swimming, etc. Students might simply ask respondents how much of which kinds of exercise they get or, alternatively, provide them with a form on which they can record their exercise over a period of a week or so. Students might also provide respondents with a list, which they could keep, of the amounts of energy expended per unit time on each of several kinds of exercise (see Science Unit II, Activity 24). Identification questions should include sex, age, socioeconomic status, approximate health status and so on. (Science Unit III)

F. Unstructured Interview: How Have People Changed Their Exercise Habits To Prevent Disease? Students should attempt to learn what sorts of exercise programs respondents have undertaken for health reasons, what has motivated them to undertake these programs, where they learned any special techniques they used and how much the learning cost, and how others might be motivated to undertake similar programs for health reasons. Students might also interview an exercise physiologist (or a cardiologist or internist) to learn about desirable exercise programs. (Science Unit III)

G. Questionnaire: What Drugs Do People Keep in the House? Before preparing the questionnaire, students should review the Science lessons on drugs (Science Unit IV, Lessons 14-20). Food-drugs such as coffee and alcoholic beverages should be included. Eighteen kinds of over-the-counter drugs are listed in Science Unit IV Instructor's Manual, pp. 85-86. Illegal drugs might be covered by an "other" category or the pharmaceutical categories might be labeled so as to allow listing of illegal drugs under them. (For example, "CNS depressant" with a list of examples including "opiates" would cover heroin as well as a variety of medicinal drugs.) Identification questions should elicit information about any characteristics that students think might be correlated with the keeping of different kinds of drugs in the home. Other questions might ask about the number and ages of children in the home, the proportion of the family budget spent on drugs, reasons the drugs are kept and so on. (Science Unit IV)

H. Unstructured Interview: How Do People Prevent Their Children from Becoming Dependent on Drugs? In preparing for this interview students should review what they know about addictive and habituative drugs (see Science Unit IV). Follow-up questions might elicit information about what kinds of drugs parents try to prevent children from becoming dependent on, what parents think motivates children to become dependent on drugs and what they think motivates children to avoid becoming dependent on drugs. (Science Unit IV)

I. Unstructured Interview: Have People Used Relaxation Techniques for Health Reasons? In preparing for this interview students should review what they have learned about biofeedback training (see Science Unit IV, Lesson 4) and should investigate several kinds of meditation. Many books and brochures on meditation are available; caution students that some of them do not actually tell how to do it, but only describe the results claimed for the procedure. Follow-up questions should elicit information about such things as the methods used, the cost of learning the technique or acquiring the necessary equipment, the length of time and frequency of use, the benefits of use, what motivated the respondent to use the method and what might motiate others to investigate it.

Interviews with individuals who have used various techniques might be supplemented by a panel discussion among several people who have practiced different techniques. Students should prepare for such a discussion by compiling a list of questions that arose or were not satisfactorily answered during interviews with individuals. Questions

on the relative value of different procedures for accomplishing the same objective (with the understanding that different procedures are likely to be more effective for different individuals) might stimulate interesting discussion among the panel members. (Science Unit IV)

J. Unstructured Interview: Have People Had Genetic Screening Tests? In preparing for this interview students should investigate the genetic screening programs that exist in their community. Follow-up questions should elicit information about the costs and benefits of testing, what motivated respondents to be tested and what might motivate others to be tested. (Science Unit V)

SUGGESTED APPLICATIONS:

A. Project 3: Results of any of the above inquiries can be used, together with the results of appropriate inquiries from Project 2, in completing Project 3. See Project 3 for further information.

B. Publication: Any findings from the above inquiries which students think are sufficiently interesting should be prepared for publication in the school newspaper or a community newspaper, or for release to a local radio or television station. Data from questionnaires should be subjected to chi-square analysis (see Mathematics Unit II, Lessons 28-29) and the results of the analysis published along with the conclusions from the data.

C. Contribution to Local Preventive-Health-Care Agencies: Findings from any of these inquiries should be communicated to relevant community agencies. For example, an agency promoting better food selection and preparation might be interested in the results of Inquiry C or Inquiry D. Students should identify the appropriate agencies and prepare the information for presentation to them.

PROJECT 2: PREVENTIVE HEALTH PRACTICES--COMMUNITY (I)

SYNOPSIS:

Students use a combination of inquiry methods to investigate any of several kinds of programs that may exist in the community to promote preventive health practices.

OBJECTIVES:

Possible objectives include the abilities to conduct survey research by questionnaire or unstructured interview (see Project 1 for more detailed objectives), to prepare for, carry out and analyze the results of participant or nonparticipant observation (or both) and to present conclusions in a useful form.

RESOURCES:

(In addition to those listed for Project 1) Biomedical Social Science Unit I, Lessons 22-25.

ADVANCE PREPARATIONS:

In this project students will be visiting one or more health-related agencies in the community. Before they do so, you should prepare a letter to the agencies they will be visiting, explaining what the students will be doing. Depending on your perception of local conditions, you might wish to arrange the visits in detail yourself or to let students do it, with your letter as an introduction. State and district regulations should be checked if students are to visit during school hours. The students' work will be easier if you can communicate to the agencies they visit that they are enrolled in a special Biomedical program and are relatively sophisticated about health, disease and health care.

If students use a questionnaire, you will need to reproduce copies after students have designed the questionnaire.

SUGGESTED INQUIRIES:

A. Kinds of Preventive Health Practices: The following is a list of kinds of preventive health practices that might be in use in your community. Each item listed below (except "Mental Health") is directly related to one unit of Biomedical Science. The appropriate unit is cited at the end of each item.

1. Respiratory: This category might include agencies that monitor or attempt to control air pollution as well as those (such as the Lung and Heart Associations and the Cancer Society) that attempt to discourage smoking. (Science Unit I)

2. Nutritional: This might include agencies that distribute free or inexpensive food, agencies that try to improve food selection and preparation practices, agencies such as the FDA that regulate food quality, and weight-reduction clinics. (Science Unit II)

3. Dental: This would include any agency that attempts to promote preventive dental care, possibly including programs in the public schools and outreach programs of the local Dental Association. (Science Unit II)

4. Circulatory: This would include any agency that attempts to prevent heart disease or vascular disease, including agencies that promote exercise (such as the YMCA or YWCA), those that discourage smoking and those that encourage dietary precautions. (Science Unit III)

5. Drug Dependence: This category should be expanded to include agencies that attempt to detoxify alcoholics, smokers and addicts of illegal drugs; the same agencies are likely to be involved in one or another kind of preventive program. The local police agency is likely to have a drug-abuse-prevention program if you are in an urban area. (Science Unit IV)

6. Perceptual: This includes programs for vision screening and hearing screening that may be conducted in the public schools, as well as any programs conducted by local professional associations or volunteer groups. (Science Unit IV)

7. Mental Health: This category should include suicide-prevention and crisis-intervention "hotlines" and similar services. "Mental health" should be loosely construed. (Not discussed in Biomedical Science.)

8. Genetic: This should include all genetic screening programs, genetic counseling programs and large hospitals that provide genetic testing and counseling. Agencies for the treatment or maintenance of genetically defective individuals (e.g., the deaf or blind, or those with Down's syndrome) might also be contacted, since they might know of other preventive programs or be involved in such programs themselves. (Science Unit V)

9. VD: Agencies that treat VD, such as "free clinics" and county health departments, should be included in this category. (Science Unit V)

10. Family Planning: Pregnancy is not a disease, but programs to help people prevent or terminate pregnancies are normally conducted by health professionals and have health-related objectives. Family planning programs such as Planned Parenthood should therefore be considered. (Science Unit V)

11. Trauma and Accidents: Police accident-prevention programs should be considered along with any other program intended to promote prevention of other kinds of accidents--electrical accidents, accidental poisoning, etc. Auto insurance agents might be able to supply information on accident-prevention programs in addition to those conducted by police agencies. (Science Unit VI)

B. Things To Investigate: The following is a list of possible topics for investigation.

1. Services: What does the agency do for people? What does it do for the community as a whole (e.g., by preparing public-service messages) and what does it do for individual clients? Does it go out looking for clients, or wait for clients to come to it? Does it provide goods (e.g., drugs or prosthetic devices) as well as services?

2. Payment: Are workers in the agency paid or volunteers? Where does the money to support the program come from? Do clients pay on a fee-for-services basis? Do they pay an enrollment fee or a regular premium? Are services free to some clients and not to others? Does some of the money come from government (which level or levels?) or from nonprofit corporations? Does any of it come from profit-making corporations? Is any money raised by subscription in the community?

3. Usage: Who uses the services of the agency? (The agency's relationships with its clients are probably protected by the principle of confidentiality, and no attempt should be made to learn the names of individual clients.) How many people does the agency serve in a given period of time? Does it serve the same clients over and over again, or does it provide "one shot" services? Does the agency have more clients than it can handle or is it underused?

4. Impact: What evidence does the agency have to show that its efforts have improved the health of members of the community?

5. Roles: What sorts of roles exist in the agency? Volunteer? Paid, unskilled? Paid, skilled? What levels of education or experience are required in these roles? What specialized training is required and where can it be obtained? What roles in the agency could Biomedical students perform without further schooling?

6. Problems: What problems does the agency have? Do clients have trouble getting to the agency? Does the agency have trouble getting to its clients? Are there linguistic or other cultural barriers between health care providers and clients? Is the agency unknown to members of the community? What kind of image does the agency have among members of the community? Does the agency need more money? Does it need more workers and, if so, what kind does it need? Does it need equipment that it cannot get or cannot afford? Is the agency swamped in an epidemic (as, for example, a VD clinic is likely to be)? Is the agency in danger of losing support from governmental agencies or from private, nonprofit corporations? Is the agency failing to prevent the diseases it is supposed to prevent?

C. Methods of Inquiry: For each agency investigated, students might attempt to get information from any one or more of the following categories of individuals: workers in the agency, clients of the agency, and members of the community that the agency serves. Several methods of inquiry might prove useful.

1. Participant Observation: This method might be used in any agency that students are eligible to visit as clients. Students should make careful preparations in advance of their observations, so that they will be prepared to get the information they have gone in to get.

2. Nonparticipant Observation: With the permission of the agency, students might visit the agency to observe unobtrusively or to talk to people or both. Again, students should be well prepared to observe what goes on. Any contacts with clients in the agency should be cleared with responsible people in the agency.

3. Questionnaire Survey: This method might be used to ask members of the community what they know, think and feel about the agency. With the assistance of the agency, it might also be used to ask present or former clients of the agency (by mail) about the agency and its services or about themselves. Care should be taken to protect the confidentiality of the relationship between the agency and its clients; for example, the agency might be prevailed upon to address stamped envelopes in which students have placed blank questionnaires and stamped return envelopes; clients might then respond anonymously. If this approach is used, the questionnaire should be brief and simple.

4. Unstructured Interview: This method might be used with people who work for the agency. Students should carefully prepare their questions so as to elicit the desired kinds of information.

SUGGESTED APPLICATIONS:

A. Project 3: Results of any of the above inquiries can be used, together with the results of appropriate inquiries from Project 1, in completing Project 3. See Project 3 for further information.

B. Project 4: If the above inquiries produce evidence that several health-related agencies in the community have one or more problems in common, this evidence might be used as the basis of a new inquiry and application of the kind described in Project 4.

C. Publication: Observations and conclusions that students consider interesting should be prepared for publication in the school newspaper or a community newspaper or for release to a local radio or television station.

D. Contribution to Agencies Investigated: Observations and conclusions from any of the above inquiries should be communicated to the agencies they pertain to. For example, a VD clinic would be interested in finding out what people in the community think about its presence and the services it provides, especially if it is having trouble reaching people who need its services. Students' findings might help community agencies improve their service to the community.

PROJECT 3: PREVENTIVE HEALTH PRACTICES--COMMUNITY (II)

SYNOPSIS:

Students combine appropriate findings from Project 1 and Project 2 and relay useful information to communtiy groups and agencies interested in preventive health practices.

OBJECTIVES:

Possible objectives include the abilities to synthesize information from different inquiries and to present conclusions in a useful form.

RESOURCES:

Results of Project 1 and Project 2.

ADVANCE PREPARATIONS:

No preparations are required in addition to those necessary for Projects 1 and 2. However, you might be able to "set up" Project 3 by judicious selection of topics for inquiry in the first two projects. A community agency that promotes preventive health practices and is known to have some sort of problem--particularly in its relations with the community--could be selected for study in Project 2; the kind of preventive health practices it promotes might determine the selection of inquiries in Project 1. Project 3 would then be an attempt to combine the findings of these two inquiries to produce a report on the agency's problem and some recommendations for solving it.

SUGGESTED INQUIRIES:

The following table lists combinations of inquiries for Projects 1 and 2 which might yield results that could be used in Project 3. Project 2 is most likely to contribute useful results if it is focused on "usage," "impact" or "problems" (see Project 2, Suggested Inquiries, Parts B-3, B-4, B-6).

PROJECT 1 INQUIRY	PROJECT 2 KIND OF CARE
A,B (smoking)	1 (respiratory)
C,D (diet)	2 (nutritional)
E,F (exercise)	4 (circulatory)
G,H (drugs)	5 (drug dependence)
I (relaxation techniques)	7 (mental health)
J (genetic)	8 (genetic)

Below are a few examples of ways in which findings from Projects 1 and 2 might be combined.

A. Communication Problem: Project 1 might reveal that many people in the community are unaware of the services provided by a community agency. Project 2 might reveal that the agency is having trouble making any impact on the community's

health. Project 3 might produce a recommendation (with supporting argument) for improving communication between the agency and the community, and a plan for carrying out the recommendation.

B. Inappropriate Care: Project 1 might reveal that many people in the community have tried a preventive measure and found it unsatisfactory (too expensive, ineffective, etc.). Project 2 might reveal that a community agency is stressing that preventive measure. Project 3 might produce a recommendation (with supporting argument) that the agency reveiw the methods by which it pursues its preventive-health-care objectives, and a plan for carrying out the recommendation.

C. Lack of Preventive Care: Project 1 might reveal that many people are unable to get preventive care that they want. Project 2 might reveal that no community agency provides that kind of care. Project 3 might consist of an argument and a plan for adding that kind of care to an agency's responsibilities or for establishing a new agency to provide it.

D. Need for Volunteer Workers: Project 1 might reveal that many people in the community are not interested in preventive health practices or cannot get access to preventive care that they want because there is too long a "waiting line" or because their health insurance does not cover such care. Project 2 might reveal that an agency that provides preventive care could expand its delivery program if it had more volunteer workers. Project 3 might produce a recommendation and a plan for encouraging people in the community to volunteer to work in the agency.

E. Cultural Barrier: Project 1 might reveal that many people in the community do not use the services of an agency because of a linguistic or other cultural barrier Project 2 might reveal that the agency is having trouble getting people to come in for that kind of care. Project 3 might produce a recommendation and a plan for overcoming the barrier, e.g., by providing interpreters or by adding an anthropologist as a consultant to the staff of the agency. (see Project 14 for further suggestions related to this kind of problem.)

SUGGESTED APPLICATIONS:

The nature of the application will depend on the nature of the problem and solution that students have discovered. As the examples above show, it may be possible for students to make a positive contribution by presenting their observations and recommendations directly to a health-related agency in the community. In other instances it might be preferable for students to present their ideas to the community at large, through the mass media or by some such means as an "information day" held at your school, a community church or some other building that might be available for such purposes.

In preparing to communicate their ideas, students should pay careful attention to the audience they will address (health care professionals, community leaders, other people in the community) and should make every effort to present their recommendations in a form that will be useful, interesting and palatable to the audience. A good idea badly stated is of little use; a mediocre idea that is presented well is more likely to produce results in the long run by arousing interest in the possiblity of refining the students' recommendations.

PROJECT 4: PREVENTIVE HEALTH PRACTICES--COMMUNITY (III)

SYNOPSIS:

Students combine findings about different agencies (from Project 2) and analyze an unresolved problem that the agencies have in common.

OBJECTIVES:

Possible objectives include the abilities to synthesize information from related inquiries and to present conclusions in a useful form.

RESOURCES:

Results of Project 2.

ADVANCE PREPARATIONS:

No preparations are required in addition to those for Project 2.

SUGGESTED INQUIRIES:

A. Services: Inquiry into the services provided by several agencies might reveal either that agencies are wasting resources by duplicating one another's services or that agencies are failing to provide some kind of care because each agency considers that kind of care to be the responsibility of some other agency. Project 4 might produce a recommendation and a plan for rectifying this situation.

B. Usage: A study of the usage (who comes in, for what, how often, etc.) of several agencies' services might reveal that some identifiable population group in the community (an age group, an ethnic group, a neighborhood, a socioeconomic stratum, etc.) is not getting an equitable share of the services provided by the agencies. Project 4 might produce a summary of the evidence of this discrepancy, and a recommendation and a plan for solving the problem.

C. Problems: Inquiry might reveal that several agencies share one or more problems but either do not know that these are common problems or, if they do, do not have a common plan for solving them. Project 4 might produce a summary of the evidence showing that the problem is common to several agencies, and a recommendation and a plan for common action by the agencies to solve the problem.

SUGGESTED APPLICATIONS:

The information generated by students in Project 4 should be transmitted to all the agencies involved and, perhaps, to the general public as well. If students have identified a problem that several agencies have in common it will be necessary for them to provide a well-supported argument that the problem warrants action. Presentation of the evidence is therefore likely to be at least as important as working out a plan for solving the problem. In fact, the evidence alone might be useful to the agencies, even if the students are unable to come up with a solution.

PROJECT 5: HEALTH CARE DELIVERY--COMMUNITY

SYNOPSIS:

Students identify and investigate health care delivery facilities providing services for population groups in the community that have special health needs, such as young children, adolescents and old people.

OBJECTIVES:

Possible objectives include the abilities to identify health needs of population groups, to identify agencies that provide the needed services, to analyze the services provided and to present conclusions in a useful form.

RESOURCES:

Biomedical Social Science Unit I, Lessons 17-18.

ADVANCE PREPARATIONS:

Students will be interviewing personnel at several health care delivery sites. You should prepare a letter of introduction and make any arrangements you can that will help students gain access to these personnel.

SUGGESTED INQUIRIES:

A. Identifying Population Groups: Students should first identify one or more population groups in the community that have special health needs. Some possibilities are young children, adolescents and old people. Depending on the community, there may also be other groups with special needs, such as ethnic minority groups, recent immigrants from foreign countries or handicapped persons.

B. Identifying Health Needs: Students should outline the health needs of the group or groups they have identified. An inventory of needs for any group should include ordinary needs, such as dental checkups, emergency health care and preventive maintenance, as well as special needs. Special needs may be more or less cultural, social or economic in origin. For example, old people in an urban community are likely to be poor and isolated; recent immigrants are likely to have language problems and may also have an unusually high prevalence of one or another physical or mental health problem; handicapped people may have difficulties with transportation or communication or both. When poverty, isolation, language difficulties and transportation problems interfere with preventive health practices or with the delivery of health care, then these things may be considered health problems as well as economic, cultural or social problems.

At this stage students should not try to prepare a definitive list of health problems, but should instead prepare a list of kinds of health care to look for; as the inquiry progresses, they will probably discover other kinds of care that are in great demand among the groups they have identified.

The list of kinds of health care provided in Project 2 (Suggested Inquiries, Part A) will provide a starting point for deciding what sorts of services to look for.

C. Identifying Agencies: Some telephone work (or legwork) will be required to identify agencies in the community that provide the services students have identified. The League of Women Voters and the Chamber of Commerce might be able to provide useful information.

D. Interviewing: Students should conduct unstructured interviews with at least one person in each agency identified, for the purpose of finding out (1) what services are needed by the population groups in question and (2) what services the agency provides. Respondents might also be able to identify other relevant agencies.

The list of things to investigate provided in Project 2 (Suggested Inquiries, Part B) will suggest questions for students to use in their interviews. Questions on usage, impact and problems associated with delivery of the services in question are most likely to yield useful information.

E. Analyzing Responses: Students should pool the results of their interviews to produce both a catalog of the services required and a catalog of the services provided and the agencies that provide them. The analysis should yield conclusions about such things as services that are needed but are not provided or are in short supply, services that are duplicated, services that are available but difficult for clients to get and so on.

SUGGESTED APPLICATIONS:

Applications should focus on any problems students have identified. Such problems should be analyzed and reported, with recommendations, to the agencies involved.

An additional possibility is to prepare a report to each of the population groups that students have focused attention on. A report on the health needs of small children should be communicated to parents, perhaps through pediatricians or through schools or other community agencies serving families with young children. A report on the needs of adolescents should be circulated through schools. Reports on the needs of adult groups (e.g., old people, recent immigrants or the handicapped, should be communicated to any organizations that exist to serve these groups, particularly those that serve as gathering places and host social functions for members of the groups.

PROJECT 6: PREVENTIVE HEALTH PRACTICES--FAMILY

SYNOPSIS:

Students prepare a manual of preventive health practices and emergency procedures for use in the home.

OBJECTIVES:

Possible objectives include the abilities to identify the preventive and emergency health needs of a typical family, to identify sources of needed information and to present information in a useful form.

RESOURCES:

Biomedical Science Text, Units I-VI.

ADVANCE PREPARATIONS:

This project should not require any advance preparations on your part. Students will be primarily gathering and organizing information. You might want to assist at the end of the project by getting a health professional to rewiew the manual and by reproducing copies of the manual.

SUGGESTED INQUIRIES:

A. Dimensions of Preventive Health Care: In researching the preventive health needs of a family, students should keep in mind each of the following dimensions of health care.

1. Knowledge, Opinions, Attitudes and Beliefs: One thing that is required is accurate medical information. The manual might suggest a home library or a single source of reliable information. Students should judge which resources are likely to be the most useful.

2. Roles and Relationships: Different members of a family might have different roles in carrying out family preventive health practices. For example, a person who is responsible for the care of young children should be prepared to look after their health needs; a person who is often alone should be prepared to look after his or her own health needs, and be able to get help in an emergency. Students should consider not only what needs to be done in the family but also who needs to do it.

3. Emergency Procedures and Supplies: Many emergency interventions require that a person either have certain supplies (e.g., drugs, bandages, a list of antidotes for poisons) or know how to perform certain procedures (e.g., measure a person's temperature, administer drugs according to instructions, give artificial respiration). Students should catalog the needed techniques and supplies and identify sources. (What readily available book lists antidotes for poisons? Where can one learn how to give artificial respiration?)

B. Special Health Needs: Students should identify the special health needs of categories of people who are likely to be a part of many families--young children, adolescents, pregnant women and old people, for example. They might also identify the most prevalent chronic conditions and consider including instructions for basic maintenance and emergency procedures for family members with these problems.

C. Types of Preventive Health Practices: Students should consider including material on preventing each of the following kinds of health problem.

1. Respiratory: Consider smoking and air pollution.

2. Nutritional: Consider food selection, food preparation and balanced meals for healthy people, and special diets for people with chronic conditions. Also consider methods of preventing dental caries (tooth decay).

3. Circulatory: Consider exercise, diet, smoking and Type A behavior.

4. Drug Dependence: Consider dependence on unnecessary "medical" drugs, such as laxatives and sleeping pills, as well as dependence on illegal drugs.

5. Perceptual Disorders: Consider means of detecting as well as preventing visual and hearing disorders.

6. Emotional Stress: Consider gathering information on such things as the predictable emotional upsets of the various stages of growing up and the predictable stress resulting from such momentous events as marriage, divorce, moving, changing jobs and a death in the family.

7. Genetic Disorders: Consider the disorders for which there are screening tests.

8. VD: Consider means of preventing the spread of VD.

9. Trauma and Accidents: Consider ways of preventing auto accidents and of minimizing injuries. Also consider emergency first aid procedures and ways of identifying conditions such as chemical poisoning, shock, heat prostration and unconsciousness. Know the vital signs of life.

D. Organizing Information: Students should try to design their manual so that it will be a useful reference book, convenient for obtaining information in a hurry. Appendices might be used for materials such as lists of places in the community where preventive and emergency procedures can be learned, lists of books containing useful information, and lists of providers of emergency services in the community.

Discussion of particular types of health problems should include descriptions of the indications that professional help is needed. A person using the manual should be able to learn not only how to prevent and treat minor disorders, but also how to identify serious conditions and what to do when they occur.

SUGGESTED APPLICATIONS:

The manual might be reproduced and submitted to agencies that might be interested in publishing it more widely in the community, such as the schools, church groups and agencies providing preventive health care.

Great care should be taken to ensure that the information included in the manual is accurate. A professional (preferably a physician in general practice) should review the manual before it is circulated. Several reviewers might be needed. Reviewers might also be able to suggest ways of making the manual available to people in the community.

PROJECT 7: PREVENTIVE HEALTH PRACTICES--CHILDREN

SYNOPSIS:

Students devise ways of teaching young children some fundamental preventive measures, and try them out.

OBJECTIVES:

Possible objectives include the abilities to design simulation games, to devise safe physical exercises for young children, to communicate with young children and to present conclusions in a useful form.

RESOURCES:

Biomedical Social Science Unit I, Lessons 34-35; Unit IV, Lessons 5-10, 28-29; Unit V, Lessons 10-17. Biomedical Science Unit IV, Lessons 33-35.

ADVANCE PREPARATIONS: You should not need to make any advance preparations for students' creation of teaching methods. However, you will need to make arrangements for students to visit an elementary school to try out their methods.

SUGGESTED INQUIRIES:

A. Diet: Children can easily learn the concept of a balanced diet, the idea that a person should eat some foods from each of several basic "food groups" at each meal. The background for this inquiry is found in Science Unit II. Students should try to come up with a variety of ways of teaching the information, including games that require matching pictures of the right combinations of foods for each meal; finding pictures of the right foods in magazines; identifying what's missing in pictures of meals; matching pictures of foods with terms such as "protein," "carbohydrate" and "fat"; and so on.

B. Exercise: Most children don't need to be taught to exercise. However, your students might be able to come up with ways of teaching children why exercise is important and what kinds of exercise are best for their bodies. Students might be able to devise action games that will cause children to exercise properly with a minimal chance of getting hurt. Students might also consider teaching children about the dangers of forms of exercise that are not appropriate to young children, such as contact sports.

SUGGESTED APPLICATIONS:

Any teaching methods your students have created might be tried out on children of different ages. Your students might be able to devise pre- and post-tests with which to measure children's acquisition of the skills the students have attempted to teach. Promising methods should be given exposure among elementary-school teachers in your community.

PROJECT 8: HEALTH CARE DELIVERY--SOCIETY

SYNOPSIS:

Students identify a current, controversial issue related to health, on any scale from the community to the globe, and prepare a report on the facts, values and arguments involved.

OBJECTIVES:

Possible objectives include the abilities to gather information from a variety of sources (newspapers, books, guest speakers, television, etc.), to analyze and organize information and to present conclusions in a useful form.

RESOURCES:

Biomedical Social Science Unit III, Lessons 12, 16-17.

ADVANCE PREPARATIONS:

You might be able to assist students in their inquiry by arranging for guest speakers on various sides of the selected issue to visit the class.

SUGGESTED INQUIRIES:

A. Issue Areas: The following is a list of areas in which there might be current issues.

- pollution (air, water, land, noise)
- smoking
- diet
- food production (processing, additives)
- drug dependence
- mental health
- sex education
- genetic diseases
- VD
- birth control

accidents
violence
health education
health manpower training
medical technology (drug research, new or controversial procedures)

B. Information To Gather: Students should try to get information about three things: (1) the arguments being advanced on the various sides of the issue, (2) the technical facts on the issue (preferably from a source not involved in the controversy) and (3) the value positions inherent in the arguments.

C. Organizing Information: Students should organize their information in the form of a handbook or reference sheet useful for any citizen who wants to know what the controversy is about and needs a source of information.

SUGGESTED APPLICATIONS:

Students' work might be prepared for publication in the school newspaper or a community newspaper or for release to local radio or television stations. If the issue is a hot one in the community, and particularly if there is about to be an election in which the issue is important, then a community group such as the League of Women Voters might be interested in publishing the students' report for distribution in the community, or in developing the project further.

PROJECT 9: HEALTH CARE TRAINING--COMMUNITY

SYNOPSIS:

Students investigate opportunities for health care training in the community and compile a report.

OBJECTIVES:

Possible objectives include the abilities to conduct interviews, to organize information and to present conclusions in a useful form.

RESOURCES:

Biomedical Social Science Unit I, Lessons 12-15.

ADVANCE PREPARATIONS:

This project should require no advance preparations, unless you wish to invite representatives of community educational institutions (and agencies offering on-the-job training) to speak to the class.

SUGGESTED INQUIRIES:

This project can be carried out primarily in the classroom, through the use of visiting guest speakers, if the whole class is to participate; or it can be carried out in the field.

Students should first identify all schools (private as well as public) in the community that provide training for health careers. They should include institutions such as community colleges. Community college programs in some fields might offer only partial training, which students would have to complete at another instituion. Students should also identify all health care delivery agencies in the community that provide on-the-job training to high-school graduates or to graduates with little additional education.

Having identified the training sites, students should find out as much as possible about training in each site: entrance requirements, subjects taught, certificates and degrees granted, accreditation, costs, scholarships and other forms of aid and, if possible, the track record of the program's graduates. (If they are all out of work and in debt to the training institution, forget it.)

Students should try to spend time talking with three kinds of people: teachers (or supervisors in on-the-job training), students (or current trainees) and graduates of the program. If your students work singly, they should use the unstructured interview with each respondent. If visitors speak to your class, your students should prepare a list of things they want to know so that they will be able to make the best possible use of the speakers while they are in the classroom.

In addition to learning the "facts," your students should attempt to learn "what it is like" to go through the program. What seems to make for success? What makes for failure? Is the program enjoyable? What kinds of people seem to make the best students? What kinds of people are the teachers? Is there a lot of memory work?

If possible, your students should visit the training sites and spend some time as nonparticipant observers in lectures and labs and, if possible, in on-the-job training sites.

SUGGESTED APPLICATIONS:

Your students should be able to construct a guide to health care training sites in the community. The guide could be used in your school's counseling department and perhaps in other schools in the community. The guide should be organized as a reference work for people who know less about health and health care than your students know; thus it might be useful to non-Biomedical students.

PROJECT 10: HEALTH CARE JOBS--COMMUNITY

SYNOPSIS:

Students investigate opportunities for employment in health care in the community and compile a report.

OBJECTIVES:

Possible objectives include the abilities to conduct interviews, to organize information and to present conclusions in a useful form.

RESOURCES:

Biomedical Social Science Unit I, Lessons 12-15; Unit III, Lessons 26-28. BICP Practicum Manual, Appendices C, G, H.

ADVANCE PREPARATIONS:

Students will be visiting health care delivery sites in the community. No advance preparations should be required for their contacts with personnel offices, but you should prepare a letter of introduction to agencies that do not have such offices (including private practitioners) and to higher-ranking officers in agencies that do have personnel offices. Since your students are not actually seeking jobs, they might be more welcome (and get better information) in executive offices than in personnel offices.

SUGGESTED INQUIRIES:

Students should first identify all agencies and private practitioners in the community who employ health workers. (Every MD in private practice employs at least one person. If there are many doctors in the area to be surveyed, it might be advisable to seek information about numbers and kinds of persons hired from a few centralized sources, such as local professional associations.) See Social Science Unit I, Lessons 12-15, for a list of health careers; all should be included in the search.

Next, students should inventory the types of health workers employed in the community. If there are too many sites for your class to cover them all, then it will be necessary to select some "typical" sites for study. Professionals working at the sites will be the best source of information about what is "typical" in your community.

Ideally, students should try to find out the number of each kind of health worker employed in each site. It may be necessary, however, to limit the inquiry to jobs for which your students are qualified or could qualify with training available in your community. A more restricted inquiry will, of course, produce information with more limited usefulness.

To the extent possible, students should find out about working conditions, including salaries and wages, fringe benefits, unionization, shifts and hours, requirements for employment, amount of competition for jobs, and special advantages extended to disadvantaged population groups.

Students should attempt to interview (or you should invite to the class) people who are employed in jobs reasonably accessible to your students--either jobs they are qualified for now, or jobs they could become qualified for within a year or two. (If your students have conducted or are concurrently conducting Project 9, the inquiry into health care training in your community, you will have fair idea of what training your students can reasonably expect to acquire in the foreseeable future.)

Before interviewing such workers, your students should learn as much as possible about the workers' jobs and prepare questions on those jobs and on others that the workers might know about.

SUGGESTED APPLICATIONS:

Depending on the amount and kind of information collected, students should be able to prepare a directory to health care jobs in the community that will be of interest to one audience or another--from high-school students to unemployed people in general. The directory should be organized according to criteria such as experience required, education required, principal duties and rate of pay. The completed directory should be made available to the school counseling department and, if your students think the directory is good enough, to agencies such as the state employment office, which might be interested in using or developing the directory.

PROJECT 11: DISTRIBUTION OF RESOURCES

SYNOPSIS:

Students investigate economic aspects of an agency that delivers health care in the community.

OBJECTIVES:

Possible objectives include the abilities to conduct interviews, to analyze documents (such as labor-management contracts), to organize information and to present conclusions in a useful form.

RESOURCES:

Biomedical Social Science Unit III, Lessons 26-28; information from Project 10.

ADVANCE PREPARATIONS:

Students will be seeking information from a health care delivery agency, from workers in the agency, from any labor unions that have organized workers in the agency and from professional organizations whose members work in the agency. You should prepare letters of introduction.

SUGGESTED INQUIRIES:

Students should gather information on a well-defined aspect of an agency's economic structure. A relatively simple inquiry might go into relations between the agency and labor unions, professional organizations and unorganized workers. A more complex inquiry would also go into questions such as the sources of the agency's funding, legal requirements that affect the agency's expenditures, and the allocation of the agency's funds among different endeavors (e.g., emergency care, preventive care, maintenance of chronic patients.)

The emphasis in this project is on economics. Students who are particularly interested in medical economics or in economics in general should be encouraged to undertake this sort of inquiry.

SUGGESTED APPLICATIONS:

The information gathered might be useful to the agency and to any labor unions and professional organizations contacted; to governmental agencies that contribute to the agency's funding; or to the community at large. Findings and conclusions should be organized and presented so as to be interesting and useful to the audience selected.

PROJECT 12: ALLOCATION OF RESPONSIBILITY

SYNOPSIS:

Students investigate organizational and political aspects of an agency that delivers health care in the community.

OBJECTIVES:

Possible objectives include the abilities to conduct interviews, to analyze documents (such as organizational tables), to organize information and to present conclusions in a useful form.

RESOURCES:

Biomedical Social Science Unit III, Lessons 8-11, 18-21.

ADVANCE PREPARATIONS:

Students will be seeking information from a health care delivery agency, from employees of the agency and possibly from governmental officials. You should write letters of introduction.

SUGGESTED INQUIRIES:

Students should investigate a well-defined aspect of the allocation of obligation and the allocation of accountability in an agency. A relatively simple inquiry would go into the allocation of responsibility in one agency or in one department of one agency. A more complex inquiry would also go into the relationships between the agency and the various governments under which it works, from local government through county, regional and state government to the federal government.

Students should investigate (1) who is obligated to do what, (2) how the obligations are undertaken (Are there contracts? Legal requirements?), (3) who is accountable to whom and for what and (4) what measures are taken when performance is not satisfactory.

If this inquiry goes into relationships between the agency and government, it will become largely an exercise in political science. If it is limited to relationships within an agency or a department of an agency, it will have less to do with legal allocations of responsibility and more to do with systems management. Students who are interested in these fields should be encouraged to undertake this project.

SUGGESTED APPLICATIONS:

The information gathered may be useful to the agency, to any governmental agencies that have been contacted, or to the public at large. The students' findings and conclusions are especially likely to be interesting (to somebody) if they include evidence of poor organization, that is, of unclear obligations or lack of accountability. Students' findings and conclusions should be organized and presented in a form that will be interesting and useful to the audience selected.

PROJECT 13: INSTITUTIONAL PATTERNS OF BEHAVIOR

SYNOPSIS:

Students investigate roles and relationships among roles in a health care delivery agency in the community.

OBJECTIVES:

Possible objectives include the abilities to conduct interviews, to analyze documents (such as job descriptions), to organize information and to present conclusions in a useful form.

RESOURCES:

Biomedical Social Science Unit IV, Lessons 5-15.

ADVANCE PREPARATIONS:

Students will be interviewing workers in a health care delivery agency and, if possible, some clients or former clients of the agency. Letters of introduction should stress the students' relative sophidtication about health, disease and health care.

SUGGESTED INQUIRIES:

Students should investigate the roles of a selected number of people involved in health care in an agency, including (1) persons in the agency who have direct contact with clients and (2) some clients or former clients of the agency. Employees of the agency who do not have contact with clients might also be included if the inquiry is to be relatively large in scale, but the relationships between clients and the providers with whom they have contact are most important.

Students should focus on questions that will enable them to figure out the norms governing behavior of individuals in the roles being studied. What is one expected to do? What is one expected not to do? Which of these expectations might be considered mores (serious) and which might be considered folkways (not so serious)--that is, what are the consequences of failure to behave as expected? What does a worker expect of superiors and fellow-workers in the agency? Of clients? What does a client expect of people in the agency with whom he or she has contact? Of people in the agency with who he or she does not have contact, but who are supposedly doing some work that is necessary and related to the client's own health?

Students should consider whether, for any role they investigate, there are conflicting expectations (e.g., from a superior who expects one to work quickly and efficiently and from a client who expects one to be folksy and kind) and whether there are expectations that migh conflict with an individual's personal values.

This is essentially a sociological investigation. Students who are interested in sociology or social psychology should be encouraged to undertake this project.

SUGGESTED APPLICATIONS:

The information students assemble may be useful to the agency, to labor unions or professional associations of which the workers interviewed are members, and to clients or potential clients of the agency. The information is particularly likely to be interesting if it includes evidence that some roles put an individual between conflicting expectations or impose expectations that are likely to conflict with the personal values of many individuals in the community.

PROJECT 14: SHARED IDEAS AND TRADITIONS

SYNOPSIS:

Students investigate cultural aspects of health care in the community, probably limited to differences between the beliefs and values of population groups within the community which can be described as ethnically or culturally different from each other.

OBJECTIVES:

Possible objectives include the abilities to conduct unstructured interviews, to translate respondents' remarks from one languagage into another (assuming that you have bilingual students and they interview respondents who do not speak English but who do speak the students' other language), to organize and analyze information and to present conclusions in a useful form.

RESOURCES:

Biomedical Social Science Unit II, Lessons 1-17.

ADVANCE PREPARATIONS:

Students will be interviewing members of the community. Letters of introduction should stress confidentiality and the fact that information about individuals will not be used even in the classroom.

SUGGESTED INQUIRIES:

This project might be useful if there are two or more identifiable ethnic groups in your community, and especially if the groups differ in some way that is likely to be related to health care: one is poorer than the other; one uses an "indigenous" system of healing in addition to or instead of Western-style, scientific medicine; or one includes most of the health workers in the community and the other includes a substantial proportion of their clients.

The students' inquiry might be focused on a problem related to health care affecting the people to be interviewed: a language barrier, a failure of health workers to understand the problems of clients with a different cultural background, or the like. In the absence of such a problem, your students might investigate similarities and differences between different groups' ideas, beliefs, values and traditions about health, disease and health care. The ten question sets used in Social Science Unit II will provide a place to start looking for topics to investigate.

This project is an inquiry in cultural anthropology, and students who are interested in anthropology should be encouraged to undertake it.

SUGGESTED APPLICATIONS:

Students' finding and conclusions might be of interest to the members of all ethnic groups concerned. They might also be of interest to health care delivery agencies in the community, especially if the students' observations and conclusions bear on a problem that the agencies have been attempting to solve.

PROJECT 15: THINKING, EMOTION AND MOTIVATION

SYNOPSIS:

Students investigate the means by which a health care delivery agency tries to motivate people to do something--come in for checkups, stop smoking, eat a better diet, etc.

OBJECTIVES:

Possible objectives include the abilities to conduct interviews, to create motivational materials, to conduct a questionnaire survey, to organize information and to present conclusions in a useful form.

RESOURCES:

Biomedical Social Science Unit IV.

ADVANCE PREPARATIONS:

Students will be working closely with members of one or more health care delivery agencies in the community. You might need to make arrangements for students to spend time in the agencies or for members of the agencies to spend time in the classroom. If students undertake to create their own motivational materials, you should also help them get together the necessary resources for that endeavor.

SUGGESTED INQUIRIES:

Students should investigate either (1) how an agency tries to motivate people to do something, (2) how two agencies try to motivate people to do the same thing (How do their methods differ? Which seems to be more successful? Why?) or (3) how members of the community might be motivated to do something for which there is at present no motivational campaign.

If this is undertaken as a large-scale project, students might undertake to test their own motivational materials, either alone or in comparison with an agency's existing materials. Such an inquiry would require (1) getting the materials before the public, possibly with the help of the agency concerned, and (2) conducting a survey of people in the community to determine whether they have seen the materials, what they think of them, whether they have done what the materials were meant to get them to do and so on.

A simpler project might involve simply finding out how an agency tries to motivate people to do something and reporting on the motivational materials used. In the interest of producing useful information, however, it would be preferable to compare two agencies' motivational campaigns or to create an original campaign and compare it with an existing one.

This project is more closely related to psychology and social pscychology than to any other academic discipline. However, it is also related to advertising and public relations and to the use of arts and crafts in the creation of a motivational campaign.

SUGGESTED APPLICATIONS:

Information on a comparison between two motivational campaigns might be useful to agencies interested in motivating people to do approximately the same thing. Professional associations, government agencies and health care delivery sites in the community are possible audiences.

PROJECT 16: VALUES

SYNOPSIS:

Students analyze value positions on a current health-related issue in the community and report their findings and conclusions.

OBJECTIVES:

Possible objectives include the abilities to conduct unstructured interviews, to analyze arguments for values, to construct arguments relecting the students' own values and to present conclusions in a useful form.

RESOURCES:

Biomedical Social Science Unit III, Lessons 1-7.

ADVANCE PREPARATIONS:

No advance preparations should be required unless you wish to invite guest speakers to present arguments on the various sides of the issue to be investigated.

SUGGESTED INQUIRIES:

Students should learn as much as possible about a current, health-related issue within the community. The emphasis should be on finding out what people in the community think (not just by reading newspapers but by asking the people) and on formulating the students' own positions on the issue. At this point in the course, students should be able to distinguish controversies that bear on health and health care from those that do not, and should be able to identify values on which arguments are based. The inquiry should go beyond this necessary groundwork, to produce analyses of the value positions of people in the community and of the members of your class.

This inquiry has to do with disagreement over values, which all citizens of a republic should be familiar and comfortable with. All students who are willing to undertake this sort of analysis should be encouraged to do so.

SUGGESTED APPLICATIONS:

The students' analysis of the community members' positions and their statement of their own position (or positions) should be made available to the community through the mass media. Students should present their findings and conclusions in a form that they think will be interesting and persuasive to members of the community.

PROJECT 17: INTERACTION WITH ENVIRONMENTS

SYNOPSIS:

Students investigate an ecological relationship or set of relationships in the community and report their findings and conclusions.

OBJECTIVES:

Objectives will depend on the kind of relationships to be investigated, but should include the ability to present technical information about these relationships in language that lay members of the community can understand.

RESOURCES:

Biomedical Social Science Unit I, Lessons 28-33; Unit VI, Lessons 1-12.

ADVANCE PREPARATIONS:

The preparations required will depend on the relationships to be investigated. Students may need letters of introduction to public officials, corporate officers, environmentalists' and conservationists' groups and so on.

SUGGESTED INQUIRIES:

Students should investigate a relationship between people in the community and some aspect of the environment, possibly including the other people (since crowding creates or seriously complicates ecological problems in urban and suburban areas). Any local issues regarding wildlife, open space, pollution of air, land or water, waste disposal, energy conservation, water use or land "reclamation" might serve as a subject for this inquiry.

In this inquiry students should attempt to determine both the technical facts of the matter and the arguments advanced about them (if there is disagreement). They should find out what the local, state and federal legal constraints on the situation are, and they should find out as much as possible about any attempts that may be under way to change these constraints in one direction or the other.

SUGGESTED APPLICATIONS:

Students' findings and conclusions might be presented to the community through the mass media. They should be presented in such a way as to show what the likely consequences of the issue will be, in the students' opinion, for the whole community, considered as an ecosystem (people, animals, plants, energy use, waste disposal, water and soil).

PROJECT 18: TRAUMA, MEDICINE AND THE LAW

SYNOPSIS:

Students investigate medical and legal aspects of either (1) a type of event, such as auto accidents, that often results in civil court cases or (2) a violent crime such as rape, child abuse or mugging. The emphasis is on the roles and relationships of medical and legal professionals concerned with a type of trauma and on the incidence, costs, and methods of prevention and treatment of that type of trauma.

OBJECTIVES:

Possible objectives include the abilities to conduct interviews, to observe and describe events in a formal situation (a court proceeding), to organize information and to present observations and conclusions in a useful form.

RESOURCES:

Biomedical Social Science Unit I, Lessons 7-8, 17-18, 22-25; Biomedical Science Unit VI.

ADVANCE PREPARATIONS:

Two kinds of preparations might be required: inviting guest speakers, and arranging for students to visit a court in which a case related to the students' project is being tried.

SUGGESTED INQUIRIES:

A. Kinds of Events To Investigate: Biomedical Science Unit VI includes a fictional presentation of an auto accident and the health problems consequent to it. One subject for investigation in this project is auto accidents, the traumas associated with them in your community and the civil court proceedings that often follow.

Other civil court cases--for example, those in which the plaintiff has slipped and broken some bones because the defendant allegedly negligently left a roller skate on his doorstep--might also be investigated. However, auto accidents are to be preferred as a subject for inquiry because they are a major cause of death and serious injury in the US, especially among teenagers.

Science Unit VI does not deal specifically with any traumas associated with crime. However, several kinds of criminal case do involve trauma to the victim, and one or more of these might be more interesting to your students than auto accidents. Among the types of crime that might be investigated are rape, child abuse, muggings, shootings and stabbings.

If any of these types of event occurs with alarming frequency in your community or is of particular interest to your students (as, for example, rape might be to your female students, even if rape is not a particularly common crime in your community), then that type of event should be investigated. Otherwise, it would be a good idea to investigate auto accidents, since that is the subject of several lessons in Science Unit VI.

B. Things To Find Out About:

1. Incidence: How many times does this happen each year in your community? What is the rate per year per thousand (or hundred) population? How does it compare with rates in other parts of the country? In other countries?

2. Specific Traumas: What specific kinds of trauma--physical or psychic--are most frequently associated with this kind of event? What are the rates of incidence? How do they compare with rates elsewhere?

3. Morbidity: What is the death rate from this kind of event? How does it compare with death rates for other causes? What are the specific rates for people in your students' age group?

4. Costs: What are the costs of this kind of event to the victim? What are the costs to the public (e.g., in police services and medical care)? Does the society help pay the medical costs of victims of violent crime? Is the criminal required to pay them?

5. Trends: What are the long-term trends in the rates mentioned above? Is this kind of event becoming more common? Are the kinds of trauma associated with it becoming more severe or less severe? Is the death rate rising or falling? Are the costs rising or falling?

6. Methods of Prevention: What can be done to prevent this kind of event from happening? What can individuals do to protect themselves? What can the community do to protect its members? What is the community in fact doing? What voluntary organizations are working for prevention? What are they doing? Are they able to show evidence that their efforts are efficacious?

7. Methods Of Treatment: What methods are used to treat the victims of this kind of event? With what success?

8. Roles in Health Care: In what health-related jobs do people work to prevent this kind of event? In what jobs do people work to care for its victims? What do people do in these jobs? How well do the jobs pay? What training is required?

9. Other Roles in the Community: In what other kinds of jobs do people in your community work to prevent this kind of event or to care for its victims? How well do these jobs pay? What training is required?

10. The Law: What are the provisions of the law relating to this kind of event? How is the law applied? What are the objectives of the law? What is the evidence that the objectives of the law are being met? What changes do members of the community believe should be made in the law? What arguments do they use to support their positions?

C. People To Talk To: Students working on this project should talk to as many of the following kinds of people as they can, either in the classroom or in the field. Interviews or sessions with guest speakers in the classroom should precede a visit to a courtroom.

- physicians involved in this kind of event, including, if possible, experts in forensic medicine and forensic psychiatry

- other health workers involved in this kind of event, such as emergency-room workers and ambulance attendants

- the coroner or a person who works in the coroner's office

- lawyers; these should include a prosecutor and a criminal lawyer (if a criminal event such as rape or child abuse is being investigated) or a lawyer specializing in civil cases (if an event leading to civil cases, such as auto accidents, is being investigated)

- insurance investigators, if an event leading to civil cases is being investigated (insurance investigators are interested not only in finding out how events that cause losses take place, but also in preventing them from happening to their companies' clients)

- a judge

- a representative of the police department

- representatives of community volunteer agencies that seek to prevent the kind of event being investigated or to provide treatment, rehabilitation or other care for its vicitms.

D. Things To Observe In The Courtroom: If possible, students should visit a courtroom to observe the trial of a case related to this project--either a civil case in which the victim of an auto accident (or other event that students are investigating) is suing for damages, or a criminal case in which the defendant is accused of committing a crime of the kind that students are investigating. Before the visit to the courtroom, students should decide what they are going to observe.

It is suggested that students observe the performance of roles by the various persons involved in the trial. This will of course be much easier to do if students have first interviewed a judge, a lawyer, a doctor, etc., to learn what these roles are supposed to be. In a trial, the roles of judge, attorneys, witnesses and jury members are all defined by law. Roles in a trial are therefore not merely "expected behavior" backed up by social norms and sanctions; rather, they are obligations of citizens, and failure of any of these persons to fulfill these obligations might result in the necessity of holding a new trial.

The following roles should be investigated:

judge
jury member
prosecutor and defense attorney (in a criminal trial)
plaintiff's and defendant's attorneys (in a civil trial)
witnesses (including medical experts testifying for either side)

If students do visit a courtroom to observe a trial, you should have in mind that the primary value of this experience for the students will be the exposure to a real-world situation that they might someday find themselves in the middle of. This does not mean that legitimate social-scientific inquiry cannot take place: it can. The students can and should function as nonparticipant observers, looking for certain things and recording what they see; afterward, they should organize the information they have gathered, integrate it with the other information they have collected in this project, and prepare their observations and conclusions for presentation to the community or to interested groups or agencies in the community. However, a trial is a formal and highly ritualized procedure; students will probably not be able to ask questions in the courtroom, and there may be much going on that they do not understand. Evaluation of their performance as observers at a trial should be done with these limitations in mind.

SUGGESTED APPLICATIONS:

A variety of applications are possible, depending on the kind of event your students have investigated and the kinds of things they have sought to learn about it. Two kinds of applications are suggested below; these have been selected because they are likely to be of interest and of use to other members of the community--especially if students have investigated a matter of widespread concern in the community.

A. How To Prevent...: Students might inform members of the community of ways in which they can prevent the kind of event the students have investigated. Preventive measures might be of either of two kinds: measures that individuals or families can take to protect themselves, or measures that public agencies or volunteer groups can take to protect members of the community. In either case, students should present their observations and conclusions in a form that will be interesting and useful to the intended audience.

B. What To Do If...: Students might prepare a presentation designed to inform members of the community of the services available to them and the measures they should take if the event ever occurs to them. The presentation might be released through the mass media or it might be given to a community public agency or volunteer group that would be interested in developing and using it.