Needs Assessment for Mobilization in Community Health Education: A Review and Case Study.

The Planned Approach to Community Health (PATCH) program was designed by the Centers for Disease Control as a tool to help communities plan, implement, and evaluate health promotion and health education programs. PATCH consists of three components: community mobilization, community diagnosis, and community intervention. The implementation of PATCH's community diagnosis in Davison County, Ohio (a pseudonym), was examined to identify the extent to which it incorporates those needs assessment principles that are essential for mobilization and widespread reflection and behavior change. The following PATCH activities were among those identified as effective strategies for assessing needs while simultaneously mobilizing support for change: (1) focusing initial mobilization efforts on the community at large rather than on a hand-picked core group; (2) emphasizing community control of the process; (3) fostering a sense of community ownership of the research process; (4) defining "health" broadly enough to include a wide range of citizen concerns; and (5) presenting the needs assessment findings and conducting the subsequent decision making process in a manner encouraging democratic group decision making. Appended are the following: PATCH program summary, mortality data samples, community opinion leader survey questionnaire and responses, and behavioral risk factor data collection instrument. (Contains 25 references.)

(MN)
Needs Assessment for Mobilization in Community Health Education: A Review and Case Study

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ABSTRACT

Community health education needs assessment procedures reflect the theoretical foundation and strategy of the health education programs being planned. Different theoretical foundations and practices are appropriate for different types of health problems and circumstances. Most health problems in America have behavioral etiologies which are most effectively addressed through normative-re-educative strategies. Needs assessment procedures should reflect this reality. Common needs assessment procedures are critiqued according to their potential for mobilization of community-based preventive efforts and promotion of health behavior changes. The community diagnosis phases of the Centers for Disease Control's Planned Approach to Community Health program as implemented in Davison County, Ohio are critiqued according to normative-re-educative criteria.
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I. INTRODUCTION

Needs assessment is a vital procedure in community health education program planning. The methods used will have a major impact on program content and impact. Consciously or unconsciously, needs assessment methods flow out of the practitioner's theoretical foundation, goals, and strategy for achieving change in people.

Different health problems and circumstances demand different strategies for achieving change in people. Different combinations of needs assessment procedures are useful in these divergent circumstances. It is important for community health educators to select the most appropriate change strategies and associated needs assessment procedures.

The Centers for Disease Control (CDC), through propagation of a program called PATCH—Planned Approach to Community Health—is committing substantial resources to helping American communities systematically assess their health needs and develop prevention programs. Through PATCH, the CDC, the state government, and a local community form a partnership to apply a set of community organization, needs assessment and planning procedures within the local community (Nelson, Kreuter, Watkins, and Stoddard, 1985).

This paper examines and compares three strategies for achieving planned change in people. It discusses appropriate times to use each strategy, and describes the implications of each for needs assessment. A major premise of this paper is that normative-re-educative strategies work best for preventing most of the health problems faced by American communities. After a review of common needs assessment techniques
according to their contribution to normative re-educative change, the needs assessment processes of PATCH, as implemented in Davison County,* Ohio during 1985-1987, are critiqued, reflecting the author's field experience at this site in Fall and Winter, 1986-87.

II. STRATEGIES FOR CHANGE AND IMPLICATIONS FOR NEEDS ASSESSMENT

Chin and Benne (1969) have distilled scores of ways of achieving planned change in people to three basic strategies: rational-empirical, normative-re-educative, and power-coercive. All three have appropriate uses and implications for needs assessment. Table 1 compares the strategies.

Rational-Empirical Strategies

The rational-empirical approach sees ignorance as the major root of human and societal problems. Man is viewed as rational, acting in his own self-interest when the knowledge he needs to do so is transplanted into his mind through teaching. It is thought that the solution to human and societal problems is, therefore, to generate knowledge through research and diffuse it as widely as possible through mass teaching. It is assumed that as men passively absorb the dispensed knowledge they recognize its benefit and act accordingly. Salient American examples of this approach have been the land grant university and cooperative extension services. This approach has been highly successful in the introduction of generally acceptable new products such as vaccines in industrialized countries. When the information dispensed recommends behaviors not in line with traditional and normative attitudes and values, or when a problem can only be solved by the collective action of

*pseudonym
TABLE 1
GENERAL STRATEGIES FOR EFFECTING PLANNED CHANGE IN PEOPLE
(Adapted from Chin and Benne)

<table>
<thead>
<tr>
<th>Rational</th>
<th>Empirical</th>
<th>Normative</th>
<th>Power-Coercive</th>
</tr>
</thead>
<tbody>
<tr>
<td>Change behavior to reflect knowledge dispensed by those who know</td>
<td>Improve problem solving capabilities of a person or group; foster growth</td>
<td>Change political or economic structure or decisions</td>
<td></td>
</tr>
<tr>
<td>People act in their rational self-interest</td>
<td>People satisfy internal needs in ways prescribed by knowledge, attitudes, feelings, beliefs as well as sociocultural norms and institutionalized roles and relationships</td>
<td>Many variations</td>
<td></td>
</tr>
<tr>
<td>Passive, empty recipients of knowledge are taught</td>
<td>Active educated adults re-educate themselves through reflection and action</td>
<td>Many variations</td>
<td></td>
</tr>
<tr>
<td>Outside person or group</td>
<td>Inside person or group</td>
<td>Outside or inside</td>
<td></td>
</tr>
<tr>
<td>Basic research and diffusion</td>
<td>Participatory action research and problem solving</td>
<td>Mass political or economic power behind change goal</td>
<td></td>
</tr>
<tr>
<td>Diffusion of generally acceptable &quot;things&quot;</td>
<td>When behaviors have complex origins, and when growth is desired in persons or capacity of system to solve problems</td>
<td>When change goals require changes in powerful institutions</td>
<td></td>
</tr>
<tr>
<td>Horace Mann, Carl Hovland</td>
<td>Kurt Lewin, Carl Rogers</td>
<td>Martin Luther King, P. Freire', Gandhi</td>
<td></td>
</tr>
<tr>
<td>Land Grant Universities, Cooperative Extension</td>
<td>Community development, humanistic counseling</td>
<td>Voting, lobbying, protest movements</td>
<td></td>
</tr>
</tbody>
</table>
a group, this strategy has not proven effective (Chin and Benne, 1969). Knowledge and practice surveys with heavy emphasis on validity and reliability are the main needs assessment tools for this approach. Examples are measuring people's knowledge of dietary factors related to heart disease and their average daily consumption of saturated fat. Health education planners can then decide what knowledge inputs people need and package that knowledge into programs targeted toward people.

**Power-Coercive Strategies**

Power-coercive methods are the second approach for implementing planned change among people. The strategy in these cases is to mass political or economic power behind the change goals, such as voting for a candidate or lobbying for a clean air bill. This approach to change is most appropriate when some type of structural change is needed or helpful and is politically acceptable to the organization or group fostering change. Needs assessment approaches appropriate for power-coercive change will vary widely according to the goals of the change effort. The political or economic needs of people may be diagnosed by outsiders or by the people themselves. If the goal is development of people's interest and involvement in the political process, the characteristics of needs assessments for normative-re-educative change (below) will be appropriate. When a group is active and involved and when economic or political goals are generally agreed upon, it may be appropriate to have experts research options for the group and diffuse their recommendations on, e.g., voting or lobbying, to their groups.
Normative-Re-Educative Strategies

Normative-re-educative strategies, Chin and Benne's third category, are based on different suppositions about human behavior. They see problems as lack of individual and corporate problem solving ability, or stunted individual or corporate growth in controlling and manipulating the world. They too see man as rational, yet not always acting on what he knows, because of other influences. These include other needs, values, attitudes, feelings, and what objects and events mean to him. These other factors are highly influenced by the norms of one's social group, and the constraints and expectations people have as a result of their institutionalized roles and relationships such as husband, teenage boy or girl, peasant, or socialite. Thus, man is already "educated" and acting to satisfy his internal needs in ways prescribed by all past and present influences. He is seen as active creator of his reality in light of all his formal and informal socialization. Men "do not passively await given stimuli from their environment to act. Rather [they] take stimuli as furthering or thwarting the goals of their ongoing action" (Chin and Benne, 1969, p. 44). These concepts greatly influence change efforts. Any education or effort to help man change is really "re-education", and must not be structured as if he is passive. It is recognized that men are not taught, but rather they choose to learn additional things to help them meet their goals. If learning is to take place, men must actively discover their need to learn something, choose to learn it, engage in dialogue with the new ideas or data, compare it with their existing "set", and actively develop their own new understandings. The process emphasized here is experiential learning, rather than teaching. "Man must participate in his re-education if he is to be re-educated at all" (Chin and Benne, 1969, p. 44).
Normative-re-educative strategies are most appropriate when negative health behaviors are influenced by a complex web of psychological, sociological, and other factors, rather than simply by ignorance in an otherwise motivated group. They are also appropriate when mobilization of the sustained efforts of a broad cross-section of the community can help address problems. All the priority problems chosen by PATCH in Davison County—substance abuse, teenage pregnancy, physical inactivity, domestic violence, and low self-esteem—are in these categories.

Normative-re-educative change is also advocated by social developers who, for religious, philosophical, or political reasons, seek to liberate people from oppression and its long-term effects of apathy and defeat (Bevort; Freire, 1970). In these cases, the "process goals" of individual consciousness-raising and community activation may be more important than specific "task goals", such as reduction of domestic violence. The process goal of organization and coordination is also appropriate for the diverse human service agencies and community groups within most American communities.

Hallmarks of needs assessments based on normative-re-educative strategies include:

1. Involvement of the individual, or broad-based involvement in the case of a group, in self-study (needs assessment) and working out programs of change for himself (itself). "Action research" is the term for this self-study of existing reality and change possibilities (Lewin, 1948). Breadth of involvement is emphasized by community developers (Fessler, 1976). This involvement entails dialogue between "felt needs"
and information derived from client directed social research which can verify or fail to verify the felt needs.

2. Interaction of the clients with the change agent and with each other. This interaction takes place throughout the needs assessment process as needs are observed, verified, and analyzed. The basic function of the interaction is to communicate observations and develop consensual understanding of problems that underly the symptoms, and ways to address them (Crespo).

3. Interaction and learning within groups. Because of the normative nature of customs, group discussion and group decisions often have a larger behavioral impact than individualized learning (Lewin, 1951).

4. Qualitative research tools which help clients and change agents understand the meanings of health-related behaviors, and how these behaviors fit together in the total fabric of community life (Filstead, 1979; Ianni and Orr, 1979; Paul, 1955). Qualitative research comes from anthropological field research and the theory of symbolic interactionism. People behave in ways which reflect the socially derived meanings of objects and events to them, and not just to the objects and events themselves (Spradley, 1980, pp. 8-9).

5. Consciousness-raising. Non-conscious constructs (for example, fears or presuppositions) may need to be discovered and critiqued by the clients in the process of re-education. In this way critical consciousness may be awakened and individual and collective potential may be liberated (Fröire, 1970).

6. Emphasis on development of the problem solving capabilities of the client or client system. Community ownership of the needs
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6. Emphasis on development of the problem solving capabilities of the client or client system. Community ownership of the needs
assessment process and leadership development are emphasized by community developers (Fessler, 1976).

Table 2 provides a summary of the purposes of needs assessments. Rational-empirical strategies have needs assessments which promote the maintenance and strengthening of health agencies and institutions. Normative-re-educative strategies have needs assessments which promote social change. Generally, rational-empirical needs assessments help planners learn what people need to have done to them, while normative-re-educative strategies help clients learn what they need to do to help themselves deal effectively with their lives and circumstances. This "stirring up" of the people to the point of collectively becoming involved may be called "mobilization".

Normative-re-educative strategies are emphasized in the community health development literature for most changes (Paul, 1955; Goodenough, 1958; Werner and Bower, 1982; White, 1982). Health by the people instead of health for the people is the very essence of the World Health Organization's primary health care thrust in the "Health for all by the Year 2000" campaign (Mahler, 1981). The reason for this is that most health problems and solutions have complex behavioral etiologies which are not amenable to rapid change through diffusion of information. Rather, most have complex behavioral sources embedded within a web of values, attitudes, beliefs, norms, and institutionalized relationships. In addition, most problems can be effectively addressed only through the sustained, cooperative efforts of many citizens. Only participative, re-educative strategies which recognize and deal with these dimensions of human behavior are effective.
<table>
<thead>
<tr>
<th>Political Role</th>
<th>Purpose</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control System Maintenance</td>
<td>- Guarantee the economic survival of service programs</td>
</tr>
<tr>
<td></td>
<td>- Respond to interest group pressures</td>
</tr>
<tr>
<td></td>
<td>- Provide services required by communities</td>
</tr>
<tr>
<td></td>
<td>- Program evaluation</td>
</tr>
<tr>
<td></td>
<td>- Program planning</td>
</tr>
<tr>
<td></td>
<td>- Public policy decision-making</td>
</tr>
<tr>
<td>Social Change</td>
<td>- Measure, describe, and understand community life styles</td>
</tr>
<tr>
<td></td>
<td>- Assess community resources to lessen external dependency</td>
</tr>
<tr>
<td></td>
<td>- Return needs assessment data to facilitate residents' decision-making</td>
</tr>
<tr>
<td></td>
<td>- Provide skill training, leadership, and organizational skills</td>
</tr>
<tr>
<td></td>
<td>- Facilitate collective activities and group mobilization</td>
</tr>
<tr>
<td></td>
<td>- Facilitate consciousness-raising</td>
</tr>
</tbody>
</table>
Because most community health problems require normative-re-educative change strategies, needs assessment procedures in community program planning should reflect the normative-re-educative principles outlined above. The greater the use of these principles, the greater the probability of increasing the capacity of communities to prevent their own health problems and achieve widespread voluntary behavior change. Table 3 presents a summary of criteria that can be used to assess the adequacy of needs assessment techniques for re-education and mobilization.

III. NEEDS ASSESSMENT TECHNIQUES: POTENTIALS AND LIMITATIONS

Detailed consideration of common needs assessment techniques follows, drawing principally on Israel and Thomas (1981), Warheit, Bell, and Schwab (1977), and the author's experience.

Social Indicators, Records, and Area Analysis

This method relies on secondary data sources which contain items of presumed or demonstrated association with health problems, such as income, unemployment, and census data of all kinds. Special analytical procedures are used to assess needs within particular localities, or at least to predict possible problems areas.

<table>
<thead>
<tr>
<th>Advantages</th>
<th>Disadvantages</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Low-cost, since information is readily available.</td>
<td>1. Low validity of techniques because of tenuous associations between health status and indicators.</td>
</tr>
<tr>
<td>2. Can help the researcher locate geographical and sociodemographic areas for further study.</td>
<td>2. Requires personnel highly trained in computer techniques and statistics.</td>
</tr>
</tbody>
</table>
Table 3

Suggested Criteria to Evaluate the Adequacy of Needs Assessment Techniques (adapted from Marti-Costa and Serrano-Garcia, 1983)

<table>
<thead>
<tr>
<th>Dimensions of Needs Assessment Process</th>
<th>Criteria that Foster Mobilization</th>
<th>Traditional Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>Goals of Assessment</td>
<td>Prevention and Promotion</td>
<td>Treatment</td>
</tr>
<tr>
<td></td>
<td>Awareness of collective nature of needs</td>
<td>Understand numbers and characteristics of individual victims</td>
</tr>
<tr>
<td></td>
<td>Encourage collective action</td>
<td>Foster dependency on external resources</td>
</tr>
<tr>
<td></td>
<td>Understand meanings and social contexts of behaviors</td>
<td></td>
</tr>
<tr>
<td>Source of Input</td>
<td>Community residents</td>
<td>Service providers</td>
</tr>
<tr>
<td></td>
<td>Marginal groups</td>
<td>Total population</td>
</tr>
<tr>
<td>Content of Assessment</td>
<td>All perceived needs</td>
<td>Assessment of needed services</td>
</tr>
<tr>
<td></td>
<td>Internal community resources</td>
<td></td>
</tr>
<tr>
<td>Processes of Assessment</td>
<td>Facilitate community involvement and control of process</td>
<td>Assessment carried out by &quot;experts&quot;</td>
</tr>
<tr>
<td></td>
<td>Qualitative and quantitative methods</td>
<td>Generally quantitative</td>
</tr>
<tr>
<td></td>
<td>Facilitate face to face interaction between intervener-researcher and participants</td>
<td>Lack of community participation</td>
</tr>
<tr>
<td></td>
<td>Data belongs to participants</td>
<td>Interaction controlled by scientific standards</td>
</tr>
<tr>
<td></td>
<td>Planning and collective action carried out by intervener-researcher and participants</td>
<td>Data collection and future planning controlled by agencies</td>
</tr>
</tbody>
</table>
3. Does not promote mobilization well due to physical and technical distance from people and their felt problems.

Utilization Review

This method involves gathering aggregated data on the case and sociodemographic characteristics of clients in health and human service agencies. Emergency room, hospital, clinic, mental health, and social service data can point out frequent problems in a delivery catchment area.

<table>
<thead>
<tr>
<th>Advantages</th>
<th>Disadvantages</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Low-cost - data usually easily attainable.</td>
<td>1. Invalidity problem due to underutilization and differential utilization by groups.</td>
</tr>
<tr>
<td>2. Data may already be prepared and available when requested.</td>
<td>2. Does not address causation or felt needs.</td>
</tr>
<tr>
<td>3. Can point out geographic and sociodemographic clusters.</td>
<td>3. Misses most criteria for mobilization if done for a population. May be useful when carried out with a population, as part of a community organization effort (Coonley-Hoganson, 1981).</td>
</tr>
<tr>
<td>4. Can point out major health problems for further investigation.</td>
<td></td>
</tr>
</tbody>
</table>

Health Status Indicators

Mortality statistics should be available for every American county and some morbidity statistics are available. Epidemiologic survey research can also be conducted to ascertain certain concrete problems.

<table>
<thead>
<tr>
<th>Advantages</th>
<th>Disadvantages</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. When already published, it is easy and inexpensive to gather.</td>
<td>1. Does not lead to understanding of meaning of diseases and causal factors to residents.</td>
</tr>
<tr>
<td>2. Generally reasonable validity for understanding facts of overall health problems to triangulate with and challenge perceptions, when discussed</td>
<td>2. Does not reveal causal factors.</td>
</tr>
</tbody>
</table>
with community residents.

3. Does not lead to mobilization if done by planners for a community without interaction during process of data collection or review of results.

4. Causes of death and rates may not be the most important felt needs of a community.

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**Key Informants**

In this approach, key community people who have special insight by virtue of position or profession are asked to submit their perceptions and understanding of problems individually or in groups.

<table>
<thead>
<tr>
<th>Advantages</th>
<th>Disadvantages</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Comparatively easy and inexpensive.</td>
<td>1. Unrepresentativeness of key informants</td>
</tr>
<tr>
<td>2. Meanings and perceptions, felt needs, values, attitudes, beliefs, feelings of informant and community may be explored in depth.</td>
<td>a. may not represent the needy and thereby misrepresent their interests.</td>
</tr>
<tr>
<td>3. May stimulate critical consciousness among informants and stir their interest in participating in change efforts.</td>
<td>b. agency representatives may bring only institutional perspectives on problems and change.</td>
</tr>
<tr>
<td>4. May reveal biases, misperceptions, and errors of change agent to himself.</td>
<td></td>
</tr>
<tr>
<td>5. When done in groups, may foster understanding of collective nature of needs and coordinated effort.</td>
<td></td>
</tr>
<tr>
<td>6. Internal resources of community are represented and may be tapped.</td>
<td></td>
</tr>
</tbody>
</table>

2. Scientific study of key informant approach (Warheit, Bell, Schwab, 1977) has shown problems with:

   a. lack of consensus among informants
   b. serious misperceptions of key informants on prevalence and magnitude of problems.

3. Difficult to obtain a defensible sampling form.
Questionnaires

Questionnaires may be administered to a sample selected in a variety of ways. They are an important scientific information gathering tool. They have become somewhat controversial in social science research and evaluation procedures and among educators and community development practitioners for reasons listed below.

<table>
<thead>
<tr>
<th>Advantages</th>
<th>Disadvantages</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Can gather precise, specific, valid and reliable information.</td>
<td>1. Can oversimplify social reality and therefore be inaccurate (Hall, 1978).</td>
</tr>
<tr>
<td>2. Important for maintenance of funding.</td>
<td>a. arbitrary instrument construction - not based on problems felt and understood by community residents, but rather problems planners assume are present.</td>
</tr>
<tr>
<td>3. Can have large samples with relatively small time investment compared to interviews and other qualitative methods.</td>
<td>b. Isolates respondents; sum total of responses is not the same as would be obtained from groups.</td>
</tr>
<tr>
<td>4. Can maintain respondent anonymity.</td>
<td>c. forced choices are inadequate for what people want to say.</td>
</tr>
<tr>
<td>5. Can be easily compiled.</td>
<td>d. give impression that social reality is static instead of dynamic.</td>
</tr>
<tr>
<td>6. Very helpful in planning and adapting agency-based programs.</td>
<td>2. May permit only shallow, un-integrated understanding of meanings and relationships in social reality; misses the 'gestalt' nature of life (Hall, 1978; Filstead, 1979).</td>
</tr>
<tr>
<td></td>
<td>3. The ability of people to analyze the nature of their social reality is not respected nor developed - a missed opportunity for people development.</td>
</tr>
</tbody>
</table>
Warren and Warren (1977) present a balanced view of the possibility of effective use of survey research, noting that quantitative methods can help the community-based discovery and verification process when it deals with problems felt and defined by a population. The most useful tools are those in which "variables are operationalized in ways that make sense to those who will use the data...face validity, as judged by decision-makers and informations-users, thus becoming an important criterion in participatory evaluation" (Lackey, Peterson, and Pine, 1981, p. 86). In a community development setting surveys should be designed cooperatively by the community and the change agent to investigate parts of the social reality deemed important by the community. The community should understand and have substantial control of the research process.

Many researchers promote an integration of quantitative and qualitative methods and the use of multiple assessment tools. Each can contribute to the other and to the total "picture." Needs can then be found by "triangulation" of many sources (Ianni and Orr, 1979). Filstead (1979, p. 45) writes: "Perhaps the bottom line in the integration of qualitative methods with quantitative methods in program evaluation activities is that the qualitative methods provide the context of meanings in which the quantitative findings can be understood." The most logical and recommended procedure seems to be to "ground" quantitative methods locally by starting with qualitative methods which generate questions to ask and variables to study (Ianni and Orr, 1979).
Forum

A forum is a public meeting during which community members may express their concerns. Various formats may be used to organize forums to facilitate expression of opinions, but usually a forum is thought of as a chance for open expression of opinions and discussion of the possibilities for introducing changes.

<table>
<thead>
<tr>
<th>Advantages</th>
<th>Disadvantages</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Can generate broad public participation and interest.</td>
<td>1. May suffer from lack of representativeness—lobbyists or boisterous groups can dominate.</td>
</tr>
<tr>
<td>2. Fairly easy and inexpensive, if a hall is available and convenient.</td>
<td>2. May raise expectations to an unhealthy level.</td>
</tr>
</tbody>
</table>

Nominal Group

The nominal group process uses a structured procedure in which participants interact and systematically identify priorities through voting (Gilmore, 1977).

<table>
<thead>
<tr>
<th>Advantages</th>
<th>Disadvantages</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Allows for broad &quot;surfacing&quot; of ideas which might otherwise be buried.</td>
<td>1. Some people may feel manipulated by the highly structured format.</td>
</tr>
<tr>
<td>2. Leads to a &quot;fair&quot; vote, indicative of group opinion.</td>
<td>2. Voting can be difficult and imprecise because of poor sorting of problems to be voted on.</td>
</tr>
<tr>
<td>3. Can be used with a large group by dividing into groups of 6 or 7.</td>
<td></td>
</tr>
<tr>
<td>4. Reflection and interaction levels are high.</td>
<td></td>
</tr>
</tbody>
</table>
5. Inexpensive and can be done in a few hours.

Interviews

Usually performed with individuals, but sometimes with groups, with various possible levels of structure in interviews. They can be relatively open- or closed-ended.

<table>
<thead>
<tr>
<th>Advantages</th>
<th>Disadvantages</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Can sample desired groups.</td>
<td>1. Time consuming and expensive.</td>
</tr>
<tr>
<td>2. Can obtain much high quality, in-depth information on values, attitudes, beliefs, meanings, feelings, and felt needs, especially inasmuch as interview is open-ended.</td>
<td>2. Difficult to compile results.</td>
</tr>
<tr>
<td>3. Can stimulate reflection.</td>
<td>3. Requires skillful interviewer.</td>
</tr>
<tr>
<td></td>
<td>4. Interviewee may feel &quot;on the spot&quot; and data can suffer seriously.</td>
</tr>
</tbody>
</table>

Participant Observation

Participant observation, along with interviewing, is a major research technique in ethnographic-anthropologic field work which seeks to understand cultures and the meanings people ascribe to events and actions (Spradley, 1980). This technique involves both detailed observation of people as they live their daily lives and various levels of participation of the observer in the lives and customs of people, as possible. Participation in customs gives the observer opportunity to understand the meaning of customs in ways not possible through simple observation.

<table>
<thead>
<tr>
<th>Advantages</th>
<th>Disadvantages</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Yields excellent understanding of the meaning of behaviors and events to people.</td>
<td>1. May be time-consuming and uncomfortable for observer.</td>
</tr>
<tr>
<td>2. May assist change agent in forming relationships with community members.</td>
<td>2. Expensive because of staff time required.</td>
</tr>
</tbody>
</table>
Advisory Group Process

This is not a method but a community-based process which serves as a foundation for using the techniques. Representatives of the community form a "core group" or community-based research team. Marti-Costa and Serrano-Garcia (1983) advocate this approach for mobilization under the name "Intervention within Research."

Phase I: Intervener gets to know the community.

Phase II: (a) Core group of key community persons is formed.
(b) Needs assessment techniques chose.
(c) Public informed of program.
(d) Needs assessment conducted.
(e) Results communicated to community.

Phase III: (a) General meeting with community to discuss
results of needs assessment and form task
groups around priorities.
(b) Workshops, social and recreational activities to
strengthen leaders, groups, and community
development.

<table>
<thead>
<tr>
<th>Advantages</th>
<th>Disadvantages</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Community control of the process.</td>
<td>1. Difficult to achieve a representative core group.</td>
</tr>
<tr>
<td>2. Highly interactive for all</td>
<td>2. Tendency to pursue single train of thought over extended periods of time.</td>
</tr>
<tr>
<td>parties.</td>
<td>3. Some members may not feel competent and may not participate.</td>
</tr>
<tr>
<td></td>
<td>4. Covert judgments may be made and not expressed to the group.</td>
</tr>
</tbody>
</table>
5. Pressure to conform to high status members or groups.

6. Large amount of time required for group building and maintenance.

7. Tendency to make quick decisions rather than spend the time necessary for reflection and ideas.

8. Task avoidance and diffusive conversations.

9. Lack of closure at the end of meetings.

Table 4 shows that forums, nominal group process, interviews, participant observation, and the advisory group process are particularly well suited for normative re-educative change efforts.

IV. NEEDS ASSESSMENT AND PATCH

An overview of PATCH presented by the CDC is given in Appendix I. PATCH is an example of the advisory group process, it incorporates many of the principles of needs assessment essential for mobilization and widespread reflection and behavior change. Areas of weakness and possible improvements will be noted along with the strengths of the process. PATCH, when implemented in a community, is divided into five phases. Mobilization, as described in Appendix I, is Phase I. The Community Diagnosis and Intervention stages of PATCH each have two Phases. Within community diagnosis are data collection (Phase II) and data preparation, analysis, and goal setting methods (Phase III). Within Community Intervention are more careful analysis of problems,
**TABLE 11**

EVALUATION OF NEEDS ASSESSMENT TECHNIQUES ACCORDING TO THEIR POTENTIAL FOR MOBILIZATION, ORGANIZATION, AND CONSCIOUSNESS RAISING
(Adapted from Marti-Costa and Serrano-Garcia, 1983) Techniques

<table>
<thead>
<tr>
<th>Techniques</th>
<th>Obtain Information from Community Residents</th>
<th>Obtain Information from Marginal Groups</th>
<th>Achieves Change in Services Provided</th>
<th>Facilitates Iden. Wide Range of Needs</th>
<th>Facilitates Devel. of Int. Resources</th>
<th>Control of Info. by Residents</th>
<th>Oriented Toward Prevention</th>
<th>Collective View of Problems</th>
<th>Commitment to Res. Participation - Gen.</th>
<th>Commitment to Res. Participation in Research</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>a. Data collection</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>b. Instrument collection</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>c. Data analysis</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>d. Data returns</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Poster Relationship Between Residents and Intervener</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>a. More time together</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>b. Dialogue</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Facilitate Collective Activities</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>a. Two or more persons</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>b. Two or more persons re: common problems</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>c. Adding discussion of possible solutions</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>d. Initiate collective action</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>
study of possible health education strategies, and identification of persons in the community with relevant competencies, services, and resources to be able to assist (Phase IV). Completion of study, intervention planning, intervention activities, and evaluation (Phase V), complete PATCH.

During the author's field experience in Ohio, the Davison County PATCH program, coordinated by the Davison County Health Department, completed Phase III. The rest of the paper will describe and critique Phases I - III according to their adequacy in promoting mobilization, re-education, and changes in health behavior.

Phase I Mobilization of the Community

While Phase I is the initial mobilization or rallying of the community, arousal and maintenance of involvement is a concern throughout all phases of PATCH. Two health educators from the Davison County health department acted as coordinator and assistant coordinator of PATCH, which began in June 1985 after State and local staff had received initial training by CDC staff.

The first excellent decision was to organize a large community kick-off instead of simply hand-picking a core group. Health department staff were asked to help the educators identify as many agencies and leaders as possible for invitation to the kick-off. Approximately 20 political leaders (mayor, board of health, township trustees, city council); 22 medical (hospital representatives, physicians, health systems agency representatives); 32 government and social service agency representatives; 4 clergy; 20 educational personnel, and many others for a total between 150 and 200 received personal invitations to the kick-off with RSVP cards enclosed. In addition, an extensive radio,
television, and newspaper "blitz" during the two weeks before the kick-off gave the program broad publicity.

The kick-off was held on a weeknight in late July 1985 at a local college auditorium. Approximately 150 attended. Three state health education officials, the county health department administrator, and the local health educators gave descriptions of PATCH and encouraged the community to continue its fine history of innovative public health programs. At the conclusion of the meeting, the PATCH coordinator handed out and collected interest response sheets on which the attendees could indicate their interest in being in the community or core group. They were told that a training session would be held in September for PATCH committee members.

Many positive points can be made about this initial mobilization.

1. **Broad participation was obtained.** The publicity and invitations brought together many of the most influential persons with interest in health issues. The coordinator was encouraged with the potential to "knock down the walls of turf-dom in a coordinated effort".

2. **The meeting was pulled together in less than a month.** Usually community developers may expect a year for community interest in improvement studies to gel. It is important to note, however, that this county health department already had excellent visibility and a strong reputation for public education.

3. **The promotion was very positive and "up-beat", setting the tone for an exciting community venture.** The personal letters to community members inviting them to participate used language which conveyed the decisive enthusiasm of the health department in widening their public education efforts. The mass media "blitz" and the presence
of outside officials added to the feeling that this program was important and could have substantial success in helping Zanesville and the surrounding area to make progress in preventing health problems.

4. **Community control of the process was emphasized.** The speakers at the community "kick-off" said repeatedly that this was not a "health department" program but a "community" program, and that the state or local health agency was not there to tell them what to do but to foster community-based assessment which would try to bring together locally "felt needs" and needs perceived by local and state health officials.

There were a few potential weaknesses in the mobilization phase. First, participation was broad but perhaps not broad enough. The large concentration of professionals may eventually limit effectiveness, due to predominance of institutional perspectives in decision-making. Fessler (1976, p. 11), on the basis of decades of experience with similar programs, warns that "since the organizations within various institutions assume the responsibility of maintaining the rules of conduct and procedure inherited from the past, the more the official representatives of these organizations dominate community decision-making, the more insistence there will be to 'go by the book' and avoid new and untried ways of solving age-old problems." To combat this tendency, the PATCH coordinator could have issued special invitations to persons who might not normally respond to mass media invitations for community programs, such as minority group members or "blue-collar" persons they knew who might be interested. These persons might not be interested, or they could be recruited later in PATCH for input into solving priority problems, but ideally they should be represented from
the start to ensure that PATCH serves the entire community and not just a "better off" subset. Kimball (1955) warns that community self-studies have a danger of only investigating "safe" issues that could not require significant changes from anyone of influence and avoiding serious investigation of issues that might point out a need for powerful people to change their policies. While core group members in Davison County have constant contact with persons of lower socioeconomic status, it cannot be assumed that they will well represent their perspectives in the needs assessment process.

Another weakness of the phase was the communication of expectations as to what would be decided and done before the start of the program. One state official mentioned that while the community may wish to investigate political and economic roots of health problems, "for the most part, it is probably going to be educational things that might be done." Communication of such expectations tends to limit group freedom of thought and confine change efforts within traditional patterns.

The specialist went on to say that once the core group identified "needs" for the community, they will want to ask themselves, "What programs exist?" 'Are they being used adequately?' 'Maybe we need to adjust our target population', or 'we may even need a new program'. Adjusted agency programs may help some persons, but seeing people as "targets" for agency programs and adjusted agency programs as solving problems is not destined to produce broad, innovative community-based change, but only small agency-based changes. Unfortunately, agency staff seemed to be maintaining a "do to" approach even when they are trying to address problems which have complex etiologies requiring
normative-re-educative "do with" solutions. This pitfall will be seen in the community diagnosis phase as well.

**Phase II Data Collection**

In September, 1985, core and community group members were trained in the data collection procedures of PATCH by state and local health department personnel.

PATCH has three standardized data collection procedures: mortality data (and morbidity data when available); a community opinion leader survey; and a random telephone behavioral risk factor survey. These sources of information are "triangulated" and may be supplemented by the local community if they desire. Davison County did not supplement with additional data in the community diagnosis.

**Mortality data.** The data were collected by a field intern from the Ohio Department of Health (author), and included detailed information on the 13 leading causes of death for Davison County, including overall and race- and sex-specific death rates per 100,000 per year; age trends and average age of death for the causes of death, and years of potential life lost; and percent of all deaths due to each cause. Ohio rates were also gathered for comparison, and the average yearly excess or difference in number of deaths between the county and the state for each cause of death was calculated. The data gathering and distillation was difficult enough that it was justified to have agency staff perform this function, rather than relying on core group members. Examples of mortality data are given in Appendix II(a-e).

**Community Opinion Leader Interviews.** In the September, 1985 training session, PATCH community leaders "brainstormed" 127 names of persons to interview for their opinions on health problems. Appendix
III includes the questionnaire they designed and administered during Winter 1985-86. As the brainstorming for names progressed, some group members expressed a desire to interview "common people" as well as community opinion leaders. Appendix IV shows the considerable breadth in occupational characteristics of the interviewees. As shown in the descriptions of needs assessment techniques, interviewing is an excellent assessment tool for obtaining in-depth qualitative data on the perceptions of a community. It was well done in Davison County for a number of reasons.

1. **The community decided what to ask, how to ask it, and who to ask,** fostering a sense of ownership of the research process. This will tend to increase their sustained commitment to the goal of improved community health.

2. **They interviewed a broad spectrum and large number of persons.**

3. **Interviewers were trained in interviewing techniques.** This enhanced the quality of the data and strengthened community capacity.

4. **The definition of "health" as explained to the respondents was broad enough to include a wide range of citizen concerns:** not strictly "the absence of illness, but...total health - the continual process which involves all components of life that impact on one's well-being. Health, to us, is multidimensional, involving high levels of 'wellness' on social, occupational, spiritual, physical, intellectual and emotional levels" (Appendix III).

A drawback of this process was that even though considerable breadth among interviewees was achieved, they still did not achieve a broad socioeconomic cross-section of the community. Only 8.7 percent of the respondents were blue collar workers, and no public assistance
recipients were interviewed. Brainstorming for names leads to a set of persons who are generally similar to the brainstorming group. The PATCH process may here again bias itself toward problems and perceptions of the participants rather than the broad community. A better procedure might be to plan to sample from a variety of citizens including all age and socioeconomic groups. Admittedly, developing such a sample would be a time consuming and complex process which might not be worthwhile at this stage in the community process. A balance must be struck between increasing quality of data and keeping the process simple enough to maintain citizen involvement and foster interest in continuing PATCH or activities like PATCH in the future.

Another possible way to improve the interviews would be to conduct them with both individuals and groups of citizens rather than only with individuals. Asking someone for his opinion "off the top of his head" might lead to superficial statements, e.g., "what I heard on the news last night", but in a group a more thoughtful and honest set of opinions might be generated due to interaction and comparison of perspectives coming from a challenging discussion. In addition, group discussions lead to understanding of norms whereas interviewing individuals yields only individual opinions. In these ways, separation of respondents leads to a different and perhaps less reliable "picture" than would be obtained from groups (Hall, 1978).

Behavioral Risk Factor Survey. The CDC provides PATCH communities with a behavioral risk factor survey (BRFS) which asks questions about the major risk factors for the major causes of death in the United States (Appendix V). The Ohio Department of Health (ODH) added 21 questions, while the community group in Davison County added three
questions. Questions added by ODH and the Davison County community group during the September, 1985 training session are marked in Appendix V with an asterisk.

The instrument was administered through the use of a random number telephone survey. It was administered to 777 persons during the months of January-May, 1986. The PATCH coordinator and volunteers were trained in conducting the survey by ODH staff. Like mortality data, risk data is a valuable quantitative tool for analyzing precise community problems. The possibility of running interesting cross-tabulations (e.g. income vs. seat belt usage) helps make this a valuable assessment tool. The community group wanted this data, had the freedom to add questions, and volunteered many hours to make the telephone calls.

Drawbacks of the BRFS were:

1. Questionable validity of self-reports on sensitive subjects like substance abuse and physical activity. Some of these "findings" were later called "jokes" by core group members who work in these areas.

2. Difficulty for local staff and amount of time required. It took the coordinator and volunteers seven months to prepare for and complete the survey. Over 10,000 calls - including call backs, refusals, and busy signals - were required to complete the rigorous, scientific interview process. Computer tabulation of results proved tedious because of problems with matching the survey with Ohio Department of Health programming capabilities. This process proved very burdensome for the coordinator and volunteers, and slowed the momentum of PATCH. The Ohio Department of Health has realized this and is working with the Ohio State University to design a synthetic risk factor
estimation procedure which will extrapolate county risk factor data from available state data and county demographic profiles.

3. If a behavioral census is maintained, it might be better to conduct it after receiving results of the community opinion survey so that questions could be asked which directly investigate aspects of felt needs. In this way the data would help the core group verify, or fail to verify, the seriousness of perceived problems.

Overall, the data collection procedures of PATCH are conducive to mobilization. The advisory group framework and emphasis on community control, the use of a variety of quantitative and qualitative tools, the breadth of sampling, the training of community members through experience in conducting their own research and interacting with a variety of other citizens, and collection prevention oriented data (risk behaviors) as well as mortality data, all have the tendency to promote commitment to improvement of community health.

Phase III Data Presentation and Decision Making

There was an 8-month delay in Davison County between completion of the BRFS and the Phase III decision-making meeting. This delay was due to a number of factors including staff turnover, the length of time required to request, receive, and prepare mortality data and problems with the computerized analysis of the BRFS. The Phase III meeting was finally held January 26 and 27, 1987.

The purpose of the Phase III meeting was to analyze the data, discuss its meaning, and vote on priority problems for further study and action. The meeting on January 26 lasted all day. Present were the state program director for health education, the district health educator employed by the state, the student intern (author), an
interested nurse from the district office, as well as the PATCH coordinator, another county health educator, and seven members of the core committee. After introductions and remarks by the state health educators, the core committee began looking at the data.

First, the PATCH coordinator presented the community opinion leader data. Problems mentioned most often were listed, followed by the answers to "What needs more attention?" "What problems have been adequately addressed?". These answers were displayed on large sheets of paper taped to the front and side walls of the room. Discussion of these results lasted a few hours.

The mortality and BRFS data were presented in an integrated manner by the PATCH coordinator and the intern. After an overview of the major causes of death from 1979-1984, (Appendix IIa), the age, race, and sex characteristics of each cause of death were shown in detail along with age-adjusted sex-specific and overall comparisons with Ohio rates (Appendix IIIb-e).

The risk factors for each cause of death were then placed on overhead projections along with the prevalence of each risk factor (BRFS data) and the number of deaths that would likely be prevented with a certain hypothetical percentage reduction in the risk factor. The last statistic was based on population attributable risk data supplied by the CDC. As significant problems surfaced, they were listed on large sheets and taped to the side walls of the room.

These data presentations lasted until 2:30 p.m. By that time it was obvious to everyone that the group had seen more data than they could possibly have absorbed. Everyone was tired and there was an
overall sense that the group had a massive "problem" ahead of it to try to understand the data and arrive at priorities.

After a break, the coordinator attempted to initiate a nominal group process. But soon, it became apparent that the group had some thinking to do before they could vote. Immediately, the issue of quality of life vs. mortality reduction was raised. "Do we want to look at 'health problems' or just 'problems'?" "I have a hard time in going with strictly physical health...I think by talking mortality rates we're really limiting ourselves." "Just because people don't die from it doesn't mean we shouldn't address it...it's a quality of life issue." "If you change the quality of life the mortality data will improve." "If we want to look at some quality of life problems, we don't have the statistics." "Right now, I don't want to make a decision."

The tension between quality of life and physical health reflects the wholistic orientation of the group and the prevalence of quality of life issues in the community opinion survey data (Appendix IV). Most of the core group members present represented mental health and social service agencies. The valuable behavioral and psychosocial understandings these members bring to problems led the group into philosophical quandries as to what could really be done to help people change. "Low coping skills" and "low self-esteem" were high on everyone's list of root issues behind the major health and quality of life issues being discussed, which were obesity, heart disease, alcohol and drug abuse, tobacco addiction, physical inactivity, poor nutrition, and teenage pregnancy. The remainder of this first day was taken up with open group discussion of the complexity and interdependence of
these problems. The group decided to wait a few weeks to vote on priorities after having time to reflect on the data.

Only a few core committee members could attend the next day's three-hour continuation of the previous day's discussion. The group attempted to clarify the issues by separating the issues into categories of "addictions", "injuries", "awareness and access to services", "environmental concerns", and a broad "other". This exercise did not seem to help the group.

On February 10, the core group came back together to discuss and vote. It was evident from comments made that the intervening weeks had not lent any clarity to the problems. After a brief discussion, the coordinator asked each person to list their top three problems. As everyone gave their list, they noted that they were still struggling with prevention/cure issues. Problems listed frequently were apathy, coping skills, self-esteem, alcohol and drug problems, smoking and physical inactivity.

One core group member suggested that three broad categories were health risk reduction, coping skills, and family relations. This categorization was helpful to the group (below).

<table>
<thead>
<tr>
<th>Health Risk Reduction</th>
<th>Coping Skills</th>
<th>Family Relations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Injuries</td>
<td>Alcohol/drug use</td>
<td>Teen pregnancy</td>
</tr>
<tr>
<td>Physical inactivity</td>
<td>Apathy</td>
<td>Unemployment</td>
</tr>
<tr>
<td>Smoking</td>
<td>Drinking and driving</td>
<td>Domestic violence</td>
</tr>
<tr>
<td>Poor nutrition</td>
<td>Self-esteem</td>
<td></td>
</tr>
<tr>
<td>Cancer</td>
<td></td>
<td></td>
</tr>
<tr>
<td>High blood pressure</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pulmonary disease</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
The group decided to vote for two problems from each category. A modified nominal group process was performed and the priority problems were chosen:

- **Health Risk Reduction**
  - Physical inactivity
  - Smoking

- **Coping Skills**
  - Alcohol/drug use
  - Self-esteem

- **Family Relations**
  - Teenage pregnancy
  - Domestic violence

The public relations subcommittee was charged with publicizing this information. The resource subcommittee was charged with studying the community resources already addressing these problems.

This data presentation and decision making process exhibited many positive needs assessment principles which tend to lead toward mobilization and prevention.

1. **The coordinator never rushed the group and rarely gave her own opinions or judgments**, acting instead as a facilitator for group decision making.

2. **The group was given time to grapple with "cause and symptom" issues** - and there will be continued allowance for this as problems and possible ways to address them are studied in more depth.

3. **Breadth of backgrounds of the core committee** helped the group understand the complexity of the problems and avoid simplistic assessment of "needs".

4. **Triangulation of various sources of data** led to a more complete overall "picture" of community health than single procedures afford.
5. Nominal group process led to a democratic decision. This process gave each person the opportunity to vote for his or her priority concerns. Even though it was not a secret ballot, no one seemed to be under pressure to vote in a particular way. This democratic process is valuable because it ensures that group action reflects group wants rather than the wants of change agents or a few powerful group members. Actually, in accord with re-educative principles, there would be no sustained, directed, group action without the collective desire of the group to move in that direction. This need for democratic group process is reinforced by the democratic philosophical and political climate in American communities.

One improvement in this phase would have been to further simplify and clarify the mortality and risk factor data presentations. The author tried to give details only in response to group interest but still gave too many details that many in the group were not interested in. Population attributable risk data, BRFS data, and mortality data should have been refined even further and presented in more interesting graphic forms.

The core group members were busy people and it was difficult to bring them together for entire days at a time, as is required by PATCH. This is an inherent problem in community programming. Perhaps more than seven core group members could have attended if dates had been set further in advance using a multiple date option questionnaire with core group members. As it was the coordinator had already been forced to postpone the meeting twice and it was felt to be essential to "press on" and try to get as many as possible to attend on the dates selected. Most of those who could attend were representatives of social service
agencies, and this caused the group to concentrate their discussions in these areas. Broader representation at the Phase III meetings would improve the discussions and help more community leaders "buy into" PATCH.

A tinge of pessimism seemed to characterize the group at the end of the discussions and prioritization. The group seemed to be losing some of their zeal when they considered the difficulty of organizing and planning effective interventions to deal with complex interrelated problems. Some encouragement in the form of case studies of effective innovative programs that have been implemented elsewhere could have been helpful at the February 10 meeting. Even though this would have lengthened the meetings, the importance of esprit de corps in community-based health programs can hardly be overstated. Such encouragement could have helped the group realize that they are not the first to deal with these issues, that innovative and effective ideas, techniques, and programs have been developed, and that they can indeed be the instigators of significant, positive changes in their community.

Overall, PATCH is an excellent implementation of the advisory group process. Some statements of core group members, however, gave the author the impression that their expected outcome for PATCH is altered agency programs to address symptoms. One statement is exemplary. While discussing the possible role of a resource inventory in looking for causes rather than only existing treatments, the chairman of the resource committee said, "As far as the 'why's are concerned, I don't care why...we can leave the philosophy to people at OSU (Ohio State University) who haven't seen people in years."
If PATCH does not continue to ask why problems and patterns exist through meaningful participation of as many groups as possible as it continues to assess needs in Davison County, it is destined to try to put a few simple technical agency program solutions toward solving complex problems. On the other hand, if PATCH promotes broad and deep discussion of people among whom problems exist, and involves as broad a cross-section of the citizenship as possible in assessing "why" and making decisions, it has a chance of making a significant re-educative impact in Davison County.

One way to do this would be to bring as many and as broad a range of community people together in a systematic, logical problem-solving process such as that recommended by Fessler (1976, Chapter 10). This procedure helps a group work with a "priority problem" and yet be forced to analyze its causes. First, an exploratory "focus group" is formed, made up of 10-12 interested persons. Their job is to investigate a priority problem more deeply, making use of any data they can generate or find including that gained from resource people they may call in to assist them. During a series of meetings and research activities, this group can hone down a general concern to a more specific and addressable problem. For example, having been asked to look into the problem of substance abuse, such a group might go back to the community with data to indicate that alcohol abuse among teenagers in a particular neighborhood appears to be a particularly serious problem. They also list the situations they feel need to be changed to make an impact on the problem.

At this point a day-long problem solving seminar is held, with participation of as broad and knowledgeable a cross-section of the
community as possible, including teenagers from the neighborhood with the problem. Separate task forces are formed to discuss each situation the focus group feels needs to be changed to address the larger problem of alcohol abuse among teenagers. For example, five task forces might be formed to look at availability of employment and employment services for teenagers; extracurricular and after school activities; availability of alcohol to minors; health education opportunities; and law enforcement problems. During the seminar, each task force establishes a measurable goal for the situation, the obstacles that need to be overcome to reach the goal, and recommend actions.

Toward the end of the seminar, each task force makes a presentation to the entire seminar on its goals, obstacles, and recommendations. Each report is opened for suggestions and discussion. Each task force is then charged with carrying out its recommendations and reporting back to the larger group at the end of an agreed upon period.

A procedure like this allows community members to work with a problem they are concerned about and yet delve into its causes so as not to fall into the trap of addressing symptoms in traditional ways. Its capacity to stimulate interest, involvement, and creative prevention work is due to its highly participatory, interactive nature and its emphasis on community ownership. If done well, this could be an effective way to continue PATCH's progress in Davison County.

As of April, 1987, the PATCH core group was receiving the report from the resource committee on what services are currently available in the six priority areas. They had also met with some members of the community group to explain the priorities they have selected. The PATCH
coordinator expected that a few of the problems will be selected for further action based on the results of the resource inventory and discussion with the community group.

PATCH in Davison County has successfully involved a broad range of citizens in community study and priority formulation. It has been characterized by many principles of normative-re-educative change, though it appears at times that it may settle for minor changes in a few agency activities rather than the kind of community mobilization and change that might be afforded by using a procedure like the logical problem solving process. PATCH will attain maximal effectiveness if it continues to strive for re-education through use of the strategies for involvement required by normative-re-educative theory.
REFERENCES


Appendix I

PLANNED APPROACH TO COMMUNITY HEALTH

PROGRAM SUMMARY

The Planned Approach to Community Health (PATCH) program is designed to help communities plan, implement, and evaluate health promotion and health education programs. Working as a team, representatives from the community, their State and local health departments, and the Centers for Disease Control (CDC) form an active partnership to identify and meet the priority needs of the community. Thus, PATCH provides a forum through which the partners cooperatively identify health problems and then plan, conduct, and evaluate intervention activities.

The PATCH components:

1. Community Mobilization—People who are willing to participate in a program that addresses the community's health issues and problems are identified and introduced to PATCH as potential core group or community group members. A general health education campaign provides information to the public as PATCH activities progress so that other community people have frequent opportunities to participate.

2. Community Diagnosis—Community members determine
   - the community's priority health problems
   - the behaviors and conditions that contribute to health problems
   - what influences these behaviors and conditions.

   In examining the community's health problems, activities include collecting morbidity/mortality data, conducting a community opinion survey, and conducting the Behavioral Risk Factor Survey. Specific and measurable community objectives are developed. Target populations are identified.

3. Community Intervention—Having focused on priority needs, community members
   - identify existing community services and interventions that can be helpful,
   - plan the intervention.

   A comprehensive work-plan to achieve the objectives identified by community members is developed. Evaluation methods will be used to measure the process and impact of each intervention. In addition, mortality data, the Behavioral Risk Factor Survey data, and opinion information will be re-collected at three-year intervals in order to monitor the health status of the community.
The PATCH partners:

State Health Department—The State Health Department makes a commitment to provide technical assistance and support to community-based health programs within the initial PATCH community. The State coordinator will also replicate the program in at least one other community following the implementation of PATCH in the first community. During the replication process, the State will be responsible for the training/working sessions.

Community—a PATCH community can be a city, county, district, region, or even a smaller unit such as a neighborhood. The community's PATCH team consists of:

1. Community Group—The community group consists of people who are willing to participate. Often the community group is comprised of private citizens, political office holders and individuals from service organizations, private companies, etc. The community group's responsibilities include
   - participating in the development of program objectives
   - serving on working committees,
   - assisting in the implementation of program activities.

2. Core Group—The core group consists of members of the community group who make a long-term commitment to the PATCH effort. It should consist of at least three (preferably 6-12) people who are willing to address health issues and problems in their community. The core group's responsibilities include
   - assisting the local coordinator with the program's administrative functions,
   - helping to identify the resources necessary to accomplish the program's objectives,
   - assisting in the implementing of interventions.

3. Local Coordinator—The local coordinator has primary responsibility for coordinating PATCH activities in the community. (S)he will usually be someone in a local or regional health agency who has responsibility for health education.

Centers for Disease Control (CDC)—CDC's Division of Health Education will provide training and technical assistance to the State and community.
Appendix IIa

CO. DEATHS 1979-1984

(NUMBER OF DEATHS IN PARENTHESES)

Data Source: Division of Vital Statistics
Compiled by: Divisions of Epidemiology, Health Promotion and Education, and Data Services, Ohio Department of Health

BEST COPY AVAILABLE
1979-1984 LEADING CAUSES OF DEATH
AGES 25-44
COUNTY OHIO

OTHER (18) 13%
SUICIDE (20) 14%
NMVA (15) 11%
MVA (27) 19%
HEART (20) 14%
CANCER EXC. LUNG (33) 24%
LUNG CANCER (7) 5%

(NUMBER OF DEATHS IN PARENTHESES)

Data Source: Division of Vital Statistics
Compiled by: Divisions of Epidemiology, Health Promotion and Education, and Data Services, Ohio Department of Health
Appendix IIC

YEARS OF POTENTIAL LIFE LOST
COUNTY 1979-1984

(NUMBER OF DEATHS IN PARENTHESES)

Data Source: Division of Vital Statistics
Compiled by: Divisions of Epidemiology, Health Promotion and
Education, and Data Services, Ohio Department of Health
Appendix IID

CO. DEATHS 1979-1984
HEART DISEASE

<table>
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<tr>
<td>Ohio Goal 1990</td>
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OHIO AND CO. AVG. ANNUAL AGE-ADJUSTED MORTALITY RATE 1979-1983 HEART DISEASE

DATA SOURCES
Division of Vital Statistics
Compiled by: Divisions of Epidemiology, Health Promotion and Education, and Data Services, Ohio Department of Health

(Actual number of deaths in parentheses)
Interviewed by: ____________________________

COUNTY
COMMUNITY OPINION SURVEY

(Please check the appropriate box or fill in)

1. Sex: ______ Female ______ Male

2. Race: ______ White ______ Hispanic ______ American Indian
     ______ Black ______ Asian ______ Other

3. What is your occupation?
   ______ Administrator ______ Public Assistance Recipient
   ______ City/County Official ______ Human Services Provider
   ______ Clergy ______ Public Safety, Law Enforcement, Fire, Police, Highway Patrol
   ______ Educator ______ Health Professional
   ______ Business ______ Homemaker
   ______ White Collar ______ Blue Collar
   ______ Student ______ Other

4. How long have you lived in Muskingum County?
   ______ Years ______ Months

I would like to ask you a few questions about the overall health of our county. Keep in mind that when I use the term health, I'm not strictly referring to the absence of illness, but to the total health - the continual process which involves all components of life that impact on one's well-being. Health, to us is multidimensional, involving high levels of "wellness" on social, occupational, spiritual, physical, intellectual and emotional levels.

5. In your opinion, what do you think are the 3 major health problems in the county?
   A. _______________________________________________________________________
   B. _______________________________________________________________________
   C. _______________________________________________________________________
6. What do you think are the causes of these health problems?

A. __________________________________________________________

___________________________________________________________

B. __________________________________________________________

___________________________________________________________

C. __________________________________________________________

7. If you had the power to solve these problems, what would you do?

8. Where do you get most of your information about maintaining your health?  
   (Remember our definition of health as stated previously.)

9. In your opinion, what keeps people from seeking preventive health services  
   (i.e. well-baby check-up, annual physicals, immunizations, etc.)  
   (Pause. REad suggestions if there is no response to trigger appropriate  
   response.)

   ____ Transportation  ____ Low Priority When Healthy
   ____ Costs  ____ Confusion About Services
   ____ Location of Facility  ____ Poor Quality of Services
   ____ Not Enough Services  ____ Image of Service (i.e. Services
   ____ Other_____________________ available are for certain cultures
   ____ Other_____________________ or socio-economic populations.
   ____ Other_____________________
10. In your opinion, what keeps people from making positive lifestyle changes? Choose the top three, with 1 being the most important. (Regular seat belt use, losing weight, quitting smoking, etc.) (Pause. Read examples if there is no response to trigger response.)

- Transportation
- Lack of Knowledge
- Low Priority When Healthy
- Confusion About Services
- Low Motivation
- Lack of Time
- Other

- Programs for Changing Lifestyles Are Too Expensive
- Individual Can't Financially Afford the Change
- Media Influence and Acceptance of Unhealthy Lifestyles as Exciting Fun
- Family Responsibilities
- Cultural Norms (Blue collar workers - smoking)
- Age Norms (Peer Pressure)
- Other
11. Of the problems listed below, which five need increased emphasis, and which five do you feel are being adequately addressed?

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<th>Problem</th>
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<td>Accidents (Non-motor Vehicle)</td>
<td>Alcohol/Drug Abuse</td>
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<td>DWI/Traffic Accidents</td>
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<td>Educational Opportunities</td>
<td>Divorce, Separation, Abandonment</td>
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<td>Inaccessibility of Service</td>
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<tr>
<td>Physical Fitness</td>
<td>Poverty</td>
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<td>Unemployment</td>
<td>Teenage Pregnancy</td>
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<td>Transportation (Public)</td>
<td>Sewage Disposal</td>
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<td>Housing</td>
<td>Average Income Levels</td>
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<td>Neglect of the Elderly</td>
<td>Apathy</td>
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<tr>
<td>Recreation and Park Facilities</td>
<td>Cultural Events</td>
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<td>Environmental Abuse</td>
<td>Myths Related to Overall Health</td>
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<td>Refuse Control</td>
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<td>Eating Habits</td>
<td>Pressure to Maintain Community Status Quo</td>
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<td>Accessible Services for People with Handicaps</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td></td>
</tr>
</tbody>
</table>

*If you feel you want to clarify your answers, please write your responses in the margin.*
Appendix IV
COMMUNITY OPINION LEADER SURVEY

TALLY SHEET 127 = N

1. 
| SEX     | Male | 49% (62) | Female | 51% (65) |

2. 
| RACE    | White | 93% (118) | Black  | 7% (9)  | Hispanic | 7% | Asian | 0% | American Indian | 0% | Other | 11% (14) |

3. 
| OCCUPATION | Administrator | 22% (28) | Clergy | 2.4% (3) | Educator | 8.7% (11) | Business | 7.9% (10) | White Collar | 4.0% (5) | Student | 7.9% (10) | Public Assistance Recipient | 0.0% | Public Safety (Law, Police, Fire, Highway) | 5.5% | Health Professional | 4.7% (6) | Home Maker | 4.7% (6) | Blue Collar | 8.7% (11) | Other | 11.0% (14) |
4. LENGTH OF RESIDENCY

Average length = 26.3 years

5. 3 MAJOR HEALTH PROBLEMS

Most frequent = alcohol/drug abuse
unemployment
cancer
heart disease
obesity
H₂O & sewage

6. CAUSES OF PROBLEMS

Most frequent = lack of education
apathy
unemployment
relaxed sexual mores
7. SOLUTIONS

Most Frequent = more education
family

8. MAINTENANCE INFORMATION

Most frequent = local media (radio, tv, newspaper)
reading (journals, books, magazines)
doctors
community workshops, seminars, etc.

9. PREVENTIVE HEALTH PROCRASTINATION

<table>
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<td>Location of Facility</td>
<td>11</td>
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<tr>
<td>Low Priority When Healthy</td>
<td>53</td>
</tr>
<tr>
<td>Poor Quality of Services</td>
<td>3</td>
</tr>
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PREVENTION OF POSITIVE LIFESTYLE CHANGES

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<th>Confusion About Services</th>
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<td>2 = 23</td>
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<tr>
<td>3 = 10</td>
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<table>
<thead>
<tr>
<th>Low Motivation</th>
<th>Lack of Time</th>
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<td>2 = 15</td>
<td>2 = 6</td>
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<tr>
<td>3 = 17</td>
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<table>
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<th>Programs Too Expensive</th>
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<tr>
<td>3 = 7</td>
<td>3 = 5</td>
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| Other |
|       |
| Other |
11. a. **PROGRAMS WHICH DESERVE INCREASED EMPHASIS**

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<tr>
<td>refuse control = 10</td>
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</table>
Hello. I'm (name of interviewer) calling for the County Community Health Task Force. We're doing a study of the health practices of County residents.

Your number has been chosen randomly by the County Health Department to be included in the study, and we would like to ask some questions about things people do which may affect their health.

1. Is this Area Code Prefix Suffix YES, GO TO QUESTION 2

   NO → Thank you very much, but I seem to have dialed the wrong number. It is possible that your number may be called at a later time. STOP.

2. Do you live in County? YES → GO TO QUESTION 3.

   NO → Thank you very much, but this is a survey for County residents. STOP.

3. Is this a private residence? YES → GO TO PAGE 2.

   NO → Thank you very much, but we are only interviewing in private residences. STOP.

---

Refusal Information

FINAL DISPOSITION OF TELEPHONE CALL

SUMMARY OF INTERVIEW ATTEMPTS

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Edited by: 68 Date:
Our study requires that we interview only one person who lives in your household.

1. How many members of your household, including yourself, are 18 years of age or older?

   IF ONE PERSON HOUSEHOLD, 
   GO TO ALL RESPONDENTS, ON NEXT PAGE.

2. How many are men and how many are women?

   MEN (28)   WOMEN (29)

3. Who is the oldest man/woman who presently lives in this household?

4. Who is the next oldest man/woman who presently lives in this household?

<table>
<thead>
<tr>
<th>Resident Number</th>
<th>Name/Relationship</th>
<th>LAST DIGIT OF TELEPHONE #</th>
<th>Resident Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td></td>
<td>0 1 2 3 4 5 6 7 8 (9)</td>
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<td>5 6 1 2 3 4 X X X X</td>
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<td>8.</td>
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<td>2 3 4 5 6 7 1 X X X</td>
<td>7</td>
</tr>
<tr>
<td>9.</td>
<td></td>
<td>8 1 2 3 4 5 6 7 X X</td>
<td>8</td>
</tr>
</tbody>
</table>

The person in your household I need to speak with is

INTERVIEWER: IF RESPONDENT IS NOT HOME, TRY TO ARRANGE A TIME FOR A CALLBACK.
Date ___/___/___  Time __:__

IF SCREENING WAS NOT DONE WITH RESPONDENT

Hello. I'm (name of interviewer), calling for the  County Community Health Task force. I'm a member of a special research team, doing a study of County residents regarding their health practices and day-to-day living habits. You have been randomly chosen to be included in the study from among the adult members of your household.
ALL RESPONDENTS

The interview will take about 10 minutes or perhaps a little less, and all
the information obtained in this study will be confidential.

Your name will not be used, but your responses will be grouped together with
information from others participating in the study.

Of course, your part is voluntary and you can end the interview anytime you
like. First, I'd like to begin by asking you about using seatbelts...

SECTION A: SEATBELTS

L. How often do you use seatbelts when you drive or ride in a car?

Would you say: (PLEASE READ)

<table>
<thead>
<tr>
<th>Option</th>
<th>Code</th>
</tr>
</thead>
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<tr>
<td>Always</td>
<td>1</td>
</tr>
<tr>
<td>Nearly Always</td>
<td>2</td>
</tr>
<tr>
<td>Sometimes</td>
<td>3</td>
</tr>
<tr>
<td>Seldom</td>
<td>4</td>
</tr>
<tr>
<td>Never</td>
<td>5</td>
</tr>
<tr>
<td>Don't know/not sure</td>
<td>7</td>
</tr>
<tr>
<td>Never drive or ride in a car</td>
<td>8</td>
</tr>
<tr>
<td>Refused</td>
<td>9</td>
</tr>
</tbody>
</table>
SECTION B: HYPERTENSION

These next questions are about hypertension or high blood pressure.

2. Have you ever been told by a doctor, nurse, or other health professional that you have high blood pressure? (PROBE FOR DOCTOR, NURSE, OR OTHER HEALTH PROFESSIONAL) (31)
   a. No, GO TO SECTION C, PAGE 6
   b. Yes, by a doctor
   c. Yes, by a nurse
   d. Yes, by other health professional
   Do not remember/not sure, GO TO SECTION C, PAGE 6
   Refused, GO TO SECTION C, PAGE 6

3. Have you been told on more than one occasion that your blood pressure was high, or have you been told this only once? (32)
   a. More than once
   b. Only once
   Do not remember/not sure
   Refused

4. Is any medicine currently prescribed for your high blood pressure? (33)
   a. Yes
   b. No, GO TO QUESTION 6, PAGE 5
   Do not remember/not sure, GO TO QUESTION 6, PAGE 5
   Refused, GO TO QUESTION 6, PAGE 5
5. Are you currently taking medicine for your high blood pressure? (34)

(PROBE FOR "ALL OR MOST OF THE TIME", OR "ONLY OCCASIONALLY" IF NECESSARY. IF ANSWER IS "YES, USE "YES, ALL OR MOST OF THE TIME." )

a. Yes, all or most of the time.............................. 1
b. Yes, only occasionally.................................. 2
c. No............................................................ 3

Do not remember/not sure................................. 7
Refused......................................................... 9

6. Are you doing any of the following to help control your high blood pressure?

(PLEASE READ AND CIRCLE APPROPRIATE ANSWER FOR EACH ITEM)

(Please Note: "d 4" is do not smoke)

a. Following a low salt diet................................. 1
b. Watching your weight..................................... 1
   .......................................................... 2
   .......................................................... 7
   .......................................................... 9

c. Avoiding stress, relaxing............................... 1
   .......................................................... 2
   .......................................................... 7
   .......................................................... 9

d. Cutting down or stopping smoking.................... 1
   .......................................................... 2
   .......................................................... 7
   .......................................................... 4
   .......................................................... 9

e. Following an exercise program....................... 1
   .......................................................... 2
   .......................................................... 7
   .......................................................... 9

7. As far as you know is your blood pressure presently normal or under control -- or is it still high?

(Please Note: Normal or under control includes "returned to normal" and "no longer have high blood pressure")

a. Normal....................................................... 1
b. Under Control............................................. 2
c. Still High ............................................... 3

Don't know/not sure......................................... 7
Refused......................................................... 9

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SECTION C: EXERCISE

The next few questions are about exercise, recreation, or physical activities other than your regular job or daily duties.

8. During the past month, did you participate in any physical activities or exercises such as running, calisthenics, bicycling, gardening, or walking for exercise?
   a. Yes, GO TO QUESTION 10
   b. No
   Don't know/not sure
   Refused

9. Were there other activities or exercises that you participated in during the past month besides running, calisthenics, bicycling, gardening, or walking for exercise?
   a. Yes
   b. No, GO TO SECTION D, PAGE 8
   Don't know/not sure, GO TO SECTION D, PAGE 8
   Refused, GO TO SECTION D, PAGE 8

10. What type of physical activity or exercise did you spend the most time doing during the past month?
    SEE CODING LIST A
    a. Activity
    Refused, GO TO SECTION D, PAGE 8

    ASK QUESTION 11 ONLY IF ANSWER TO QUESTION 10 IS RUNNING, JOGGING, WALKING, SWIMMING ... ALL OTHERS, GO TO QUESTION 12.

11. How far did you usually walk/run/jog/swim?
    a. Miles and tenths
    Don't know/not sure
    Refused

(SEE CODING LIST B IF RESPONSE IS NOT IN MILES AND TENTHS)
12. How many times per week or per month did you take part in this activity during the past month? (48-50)
   a. Times per week............................................. 1
   OR
   b. Times per month............................................. 2
      Don't know/not sure........................................ 777
      Refused.................................................. 999

13. And when you took part in this activity, for how many minutes or hours did you usually keep at it? (51-53)
   a. Hours and minutes..................................:.....
      Don't know/not sure.................................... 777
      Refused.................................................. 999

14. Was there another physical activity or exercise that you participated in during the last month? (54)
   a. Yes......................................................... 1
   b. No, GO TO SECTION D, PAGE 8......................... 2
      Don't know/not sure, GO TO SECTION D, PAGE 8...... 7
      Refused, GO TO SECTION D, PAGE 8................. 9

15. What other type of physical activity gave you the next most exercise during the past month? (55-56)
   SEE CODING LIST A
   a. Activity....................................................
      Don't know/not sure, GO TO SECTION D, PAGE 8...... 77
      Refused, GO TO SECTION D, PAGE 8................... 99

      ASK QUESTION 16 ONLY IF ANSWER TO QUESTION 15 IS RUNNING, JOGGING, WALKING, OR SWIMMING, ALL OTHERS GO TO QUESTION 17.

16. How far did you usually walk/run/jog/swim? (57-59)
   a. Miles and tenths.....................................
      (SEE CODING LIST B
      IF RESPONSE IS NOT IN MILES AND TENTHS)
      Don't know/not sure.................................. 777
      Refused.................................................. 999
17. How many times per week or per month did you take part in this activity? (60-62)

a. Times per week. ........................................... 1 ___ ___
   OR

b. Times per month. ........................................... 2 ___ ___
   Don't know/not sure. ........................................... 777
   Refused. ....................................................... 999

18. And when you took part in this activity, for how many minutes or hours did you usually keep at it? (63-65)

a. Hours and minutes. ........................................... 
   Don't know/not sure. ........................................... 777
   Refused. ....................................................... 999

SECTION D: DIET

19. About how much do you weigh without shoes? (66-68)

a. Weight. ........................................................ Founds
   Don't know/not sure. ........................................... 777
   Refused. ....................................................... 999

20. About how tall are you without shoes? (69-71)

a. Height. ........................................................ Ft. Inches
   Don't know/not sure. ........................................... 777
   Refused. ....................................................... 999

21. Are you now trying to lose weight? (72)

a. Yes. ............................................................... 1

b. No, GO TO QUESTION 24, PAGE 9. ......................... 2
   Refused, GO TO QUESTION 24, PAGE 9. ..................... 9

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22. Are you eating fewer calories to lose weight? (73)
   a. Yes................................................................. 1
   b. No................................................................. 2
   Don't know/not sure.............................................. 7
   Refused............................................................ 9

23. Have you increased your physical activity to lose weight? (74)
   a. Yes................................................................. 1
   b. No................................................................. 2
   Don't know/not sure.............................................. 7
   Refused............................................................ 9

24. How often do you usually add salt to your food at the table? (75)
   Would you say: (PLEASE READ)
   a. Most of the time............................................... 1
   b. Sometimes...................................................... 2
   c. Rarely............................................................ 3
   d. Never............................................................. 4
   Don't know/not sure.............................................. 7
   Refused............................................................ 9

SECTION E: CIGARETTE SMOKING

Now I would like to ask you a few questions about smoking cigarettes.

25. Have you smoked at least 100 cigarettes in your life? (76)
   a. Yes................................................................. 1
   b. No, GO TO QUESTION 34, PAGE 12. ....................... 2
   (100 CIGARETTES = 5 PACKS)
   Don't know/not sure.............................................. 7
   Refused............................................................ 9
26. Do you smoke cigarettes now? (77)
   a. Yes................................................. 1
   b. No, GO TO QUESTION 29. ...................... 2
      Refused, GO TO QUESTION 34, page 12........ 9

27. On the average, about how many cigarettes a day do you now smoke? (78-79)
   (ONE PACK = 20 CIGARETTES)
   a. Number of cigarettes.............................
   b. Don't smoke regularly............................ 88
      Refused............................................. 99

28. Have you ever stopped smoking for a week or more sometime during the past year? (80)
   a. Yes................................................. 1
   b. No.................................................. 2
      Refused............................................. 9

29. How many times have you tried to quit smoking during your lifetime? (81)
   a. 1-2 times... (IF QUESTION 26 IS YES, GO TO QUESTION 30.) 1
   b. 3-5 times... IF QUESTION 26 IS NO, GO TO QUESTION 31.) 2
   c. More than 5 times.................................. 3
   d. None, GO TO QUESTION 34, PAGE 12............. 4
      Don't know/not sure, GO TO QUESTION 34, PAGE 12..... 7
      Refused, GO TO QUESTION 34, PAGE 12............. 9

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77
30. What was the longest period of time that you quit smoking before going back to cigarettes?

(82-84)

a. Days, GO TO QUESTION 32. ........................................... 1 ____

b. Weeks, GO TO QUESTION 32. ........................................... 2 ____

c. Months, GO TO QUESTION 32. ......................................... 3 ____

d. Years, GO TO QUESTION 32. ............................................ 4 ____

Don't know/not sure, GO TO QUESTION 32 ......................... 777

Refused, GO TO QUESTION 32 ........................................... 999

31. About how long has it been since you last smoked cigarettes regularly (one or more per week)?

(85-87)

a. Days................................................................. 1 ____

b. Weeks............................................................... 2 ____

c. Months............................................................. 3 ____

d. Years............................................................... 4 ____

Don't know/not sure..................................................... 777

Refused............................................................... 999

32. What was the major thing that motivated or made you want to quit smoking?

Would you say: (PLEASE READ)

(88)

a. Information about health effects............................. 1

b. Physician's advice............................................... 2

c. Appeals from family and friends............................ 3

d. Cost........................................................................ 4

e. Publicity about undesirable social effects.............. 5

Don't know/not sure..................................................... 7

Refused............................................................... 9

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33. How did you stop smoking?

Would you say: (PLEASE READ)

a. On my own.................................................. 1
b. With self-help information or aids................. 2
c. With the help of an organized group stop smoking program........................................ 3
d. With guidance from a physician or counselor..... 4
e. Hypnosis.......................................................... 5
    Don't know/not sure........................................ 7
    Refused....................................................... 9

34. Do you use snuff?

a. Yes............................................................... 1
b. No, GO TO QUESTION 36.................................. 2
    Don't know/not sure........................................ 7
    Refused....................................................... 9

35. On the average, how many cans do you use a week?

a. One or less.................................................. 1
b. Two............................................................ 2
c. Three.......................................................... 3
d. Four or more.................................................. 4
    Don't know/not sure........................................ 7
    Refused....................................................... 9

36. Do you use chewing tobacco?

a. Yes............................................................... 1
b. No, GO TO QUESTION 38, PAGE 13............... 2
    Don't know/not sure........................................ 7
    Refused....................................................... 9
37. On the average, how many pouches do you use a week?  
   a. One or less .............................................. 1  
   b. Two ......................................................... 2  
   c. Three ......................................................... 3  
   d. Four or more .............................................. 4  
   Don't know/not sure ........................................... 7  
   Refused ........................................................... 9  

**SECTION F: ALCOHOL CONSUMPTION**

These next few questions are about the use of beer, wine, liquor - all kinds of alcoholic beverages that people drink at meals, special occasions, or when just relaxing.

38. Have you had any beer, wine or liquor during the past month, that is since January 1st?  
   a. Yes .............................................................. 1  
   b. No, GO TO **SECTION G, PAGE 16** .................................. 2  
   Don't know/not sure ........................................... 7  
   Refused, GO TO **SECTION G, PAGE 16** ......................... 9  

39. During the past month, how many days per week or per month did you drink beer?  
   a. Days per week ............................................... 1  
   OR  
   b. Days per month .................................................. 2  
   c. Never or none GO TO **QUESTION 41** ............................. 888  
   Don't know/not sure ........................................... 777  
   Refused ........................................................... 999  

40. On the days when you drank beer, about how many beers did you drink on the average?  
   a. Number of beers ..............................................  
      Don't know/not sure ........................................... 77  
      Refused ........................................................... 99
41. Also, during the past month, how many days per week or per month did you drink any wine? (100-102)
   a. Days per week ........................................ 1 _____
      OR
   b. Days per month ....................................... 2 _____
   c. Never or none, GO TO QUESTION 43 .................. 888
      Don't know/not sure .................................... 777
      Refused ................................................. 999

42. One the days when you drank wine, about how many glasses of wine did you drink on the average? (103-104)
   a. Number of glasses of wine ............................
      Don't know/not sure .................................... 77
      Refused ................................................. 99

43. And, during the past month, about how many days per month did you have any liquor to drink such as vodka, gin, rum, or whiskey? (105-107)
   a. Days per week ........................................ 1 _____
      OR
   b. Days per month ....................................... 2 _____
   c. Never or none, GO TO QUESTION 45 .................. 3 _____
      Don't know/not sure .................................... 777
      Refused ................................................. 999

44. On the days when you drank any liquor, about how many drinks did you have on the average? (108-109)
   a. Number of drinks ......................................
      Don't know/not sure .................................... 77
      Refused ................................................. 99
45. Considering all types of alcoholic beverages, that is beer, wine, and liquor, as drinks, how many times during the past month did you have 5 or more drinks on an occasion?

   a. Number of times ........................................... 
   b. None .......................................................... 88
      Don't know/not sure ........................................... 77
      Refused .......................................................... 99

46. And during the past month, how many times have you driven when you've had perhaps too much to drink?

   a. Number of times ........................................... 
   b. None .......................................................... 88
      Don't know/not sure ........................................... 77
      Refused .......................................................... 99

47. Regarding drinking behavior, do you consider yourself to be an abstainer or a light, moderate or heavy drinker?

   a. Light .......................................................... 1
   b. Moderate ...................................................... 2
   c. Heavy .......................................................... 3
   d. Abstainer, GO TO QUESTION 49, PAGE 16 ............... 4
   e. Very light, occasional, infrequent ........................ 5
   f. Other, specify ................................................... 6
      Don't know/not sure ........................................... 7
      Refused .......................................................... 9

48. On the days when you drank beer, wine or liquor during the last month, what was the largest number of drinks you had?

   a. Number of drinks ........................................... 
   b. None .......................................................... 88
      Don't know/not sure ........................................... 77
      Refused .......................................................... 99
49. During the last month have you used marijuana, hallucinogens, cocaine, heroin or other drugs not intended for medical uses? (117)

   a. Yes........................................... 1

   b. No............................................ 2

   Don't know/not sure.................................. 7

   Refused............................................. 9

SECTION G: DEMOGRAPHICS
The next few questions ask for a little more information about yourself.

50. How old were you on your last birthday (118-119)

   a. CODE AGE IN YEARS......................................

   Don't know/not sure.................................. 77

   Refused............................................. 99

51. What is your race? (120)

   Would you say: (PLEASE READ)

   a. White........................................... 1

   b. Black............................................ 2

   c. Asian or Pacific Islander....................... 3

   d. Aluetian, Eskimo or American Indian........... 4

   e. Other, specify______________________________ 5

   Don't know/not sure.................................. 7

   Refused............................................. 9

52. Are you of Hispanic origin such as Mexican American, Latin American, Puerto Rican or Cuban? (121)

   a. Yes........................................... 1

   b. No............................................ 2

   Don't know/not sure.................................. 7

   Refused............................................. 9
53. What school district do you live in?
   a. ......................................................... 1
   b. East .................................................... 2
   c. West .................................................... 3
   d. ........................................................... 4
   e. ........................................................... 5
   f. ........................................................... 6

   Don't know/not sure ...................................... 7
   Refused .................................................... 9

54. What is the highest grade or year of school you completed?
   (READ IF NECESSARY)
   a. Eighth grade or less ................................ 1
   b. Some high school .................................... 2
   c. High school grad or GED certificate ............. 3
   d. Some technical school ............................... 4
   e. Technical school graduate ........................ 5
   f. Some College ......................................... 6
   g. College Graduate .................................... 7
   h. Post grad or professional degree .................. 8
   Refused .................................................... 9

55. Are you currently:
   a. Employed for wages .................................. 1
   b. Self-employed ........................................ 2
   c. Out of work for more than one year .............. 3
   d. Out of work for less than one year ............... 4
   e. Homemaker ............................................ 5
   f. Student ................................................ 6
   or
   g. Retired ............................................... 7
   Refused .................................................... 9
56. And are you:

(PLEASE READ)

a. Married
   1
b. Divorced
   2
c. Widowed
   3
d. Separated
   4
e. Never been married
   5
   OR
f. A member of an unmarried couple
   6
   Refused
   9

57. Which of the following categories best describes your annual household income from all sources?

(PLEASE READ)

a. Less than $10,000
   1
b. $10,000 to $15,000
   2
c. $15,000 to $20,000
   3
d. $20,000 to $25,000
   4
e. $25,000 to $35,000
   5
f. $35,000 to $50,000
   6
g. $50,000 and over
   8
   Don't know/not sure
   7
   Refused
   9

58. Interviewer: Indicate sex of respondent.

(ASK IF NECESSARY)

a. Male
   1
b. Female
   2

INTERVIEWER: ASK QUESTION 59 ONLY OF FEMALES BETWEEN 18 and 45, OTHERWISE, TO GO Q 60.

59. To your knowledge, are you now pregnant?

a. Yes
   1
b. No
   2
   Don't know/not sure
   7
   Refused
   9
Next, I would like to ask you some questions about a drug that was given to some pregnant women to prevent miscarriages. This drug is Di-ethyl-stil-bes-trol and is commonly referred to as "DES".

60. Were you given the drug DES during any of your pregnancies? (129)
   a. Yes................................. 1
   b. No........................................ 2
   c. Probably (I think so, but I'm not sure)..... 3
      Don't know/not sure..................... 7
      Refused.................................. 9

61. Did your mother take the drug DES when she was pregnant with you?(130)
   a. Yes...................................... 1
   b. No......................................... 2
   c. Probably (I think so, but I'm not sure)..... 3
      Don't know/not sure..................... 7
      Refused.................................. 9

62. During the last month, how many times have you driven a motor vehicle while using or under the influence of over-the-counter, prescription, or non-medical drugs that have affected your alertness or coordination? (131-132)
   a. Number of times..........................
   b. None..................................... 88
      Don't know/not sure..................... 77
      Refused.................................. 99

63. When you ride with children in a motor vehicle, how often do they use safety belts, or if they are under four years old, child safety seats? (133)
   a. Always or almost always................ 1
   b. More than half the time.................. 2
   c. Less than half the time.................. 3
   d. Never or almost never................... 4
   e. Never ride with children................ 5
      Don't know/not sure..................... 7
      Refused.................................. 9
64. Do you have a working smoke detector in your home or apartment? (134)
   a. Yes....................................................... 1
   b. No....................................................... 2
   Don't know/not sure................................. 7
   Refused................................................... 9

65. Have you witnessed, been threatened by, or become involved in physically violent behavior in your household during the past month? (135)
   a. Yes....................................................... 1
   b. No, GO TO QUESTION 69, PAGE 21................. 2
   Don't know/not sure, GO TO QUESTION 69, PAGE 21 7
   Refused, GO TO QUESTION 69, PAGE 21................. 9

66. Did the violence involve someone under 18 years of age? (136)
   a. Yes....................................................... 1
   b. No....................................................... 2
   Don't know/not sure................................. 7
   Refused................................................... 9

67. Have you or anyone in your household had to seek medical help for injuries resulting from physical force by people within your household during the past month? (137)
   a. Yes....................................................... 1
   b. No....................................................... 2
   Don't know/not sure................................. 7
   Refused................................................... 9

68. Did the physically violent behavior that you were involved in, threatened with, or that you witnessed involve a handgun? (138)
   a. Yes....................................................... 1
   b. No....................................................... 2
   Don't know/not sure................................. 7
   Refused................................................... 9
69. Do you have access to a gun in your home?
   a. Yes ........................................ 1 (139)
   b. No, GO TO QUESTION 71 .................. 2
      Don't know/not sure, GO TO QUESTION 71 .... 7
      Refused, GO TO QUESTION 71 ................ 9

70. Is the gun that you have access to a:
   a. Handgun ..................................... 1 (140)
   b. Rifle ......................................... 2
   c. Shotgun ....................................... 3
   d. Other, specify __________________________ 4
   e. More, than one type .......................... 5
      Don't know/not sure ........................... 7
      Refused ....................................... 9

71. What are some of the things you do when you are emotionally upset? (PLEASE READ) (141-150)
   (PLEASE READ)
   a. Exercise ..................................... 1 2 7 9 (141)
   b. Cry ............................................ 1 2 7 9 (142)
   c. Go off by yourself ........................... 1 2 7 9 (143)
   d. Eat ............................................ 1 2 7 9 (144)
   e. Confide in a friend .......................... 1 2 7 9 (145)
   f. Have a drink .................................. 1 2 7 9 (146)
   g. Go to church .................................. 1 2 7 9 (147)
   h. Seek counseling ............................... 1 2 7 9 (148)
   i. Nothing ....................................... 1 2 7 9 (149)
   j. Other, specify __________________________ 1 2 7 9 (150)