COMMUNITY-BASED APPROACHES TO HEALTH PROMOTION: GUIDELINES FOR COMMUNITY MOBILIZATION

S. Mark Pancer & Geoffrey Nelson

Over the last 20 years, research has clearly indicated that many health problems can be traced to lifestyle factors or environmental factors that can be modified (1). Cardiovascular disease (CVD) is a case in point. CVD is the leading cause of death in Canada, and is higher in Canada than in many other developed countries such as France, Japan, and the Netherlands (2). Hospital costs for CVD amount to two billion dollars annually; the social costs in the form of pain and suffering of the afflicted and their family members, lost work and school days, and lost wages due to premature death are inestimable (2). Moreover, it is clear that a number of modifiable “risk factors” contribute significantly to CVD, including smoking, elevated serum cholesterol, hypertension, physical inactivity, and obesity. Awareness of these facts has led policy-makers to consider new ways to reduce rates of disease in a population.

In Canada, the widely cited Lalonde report suggested the need for an increased emphasis on disease prevention and health promotion in public policy and programs (3). These themes were echoed in the recent Epp report on health policy in Canada (4). In the 15 years since the publication of the Lalonde report, the knowledge base of health promotion has increased dramatically. Early health promotion interventions focused primarily on skills training programs to change the behavior of individuals that put them at risk for CVD (5). As well, the importance of involving family and friends in supporting the individual to sustain behavior change efforts has been recognized (6). Clearly it is necessary to change individual behavior and to provide micro-level support for such change to decrease the risk of CVD. However, health promotion strategies have recently gone beyond interventions for “high risk” groups to “community-wide” intervention strategies (7). Community-based health promotion works through community structures such as schools, work and leisure settings, and neighborhood organizations to promote healthy lifestyles and environments. Thus, the community-based approach emphasizes the importance of the social context in health promotion. Moreover, the community-based approach emphasizes a philosophy of empowerment in which individuals, groups, and organizations actively participate in changing community settings and developing...
Community norms towards the goals of enhanced health and well-being (8, 9).

The purpose of this article is two-fold. First, several community-based CVD prevention programs are described. Particular attention is paid to the strategies of community mobilization that were employed in these interventions. Second, from these programs, several guidelines for effective community mobilization for health promotion are distilled.

COMMUNITY-BASED HEALTH PROMOTION PROGRAMS

In what follows, we will review five community-based health promotion programs. All programs used a combination of approaches featuring the mass media and community participation to promote behavior changes (e.g., in smoking, diet, exercise) that would reduce morbidity and mortality due to CVD. The criteria used in selecting the programs for review included the following:

- the program provided for significant involvement of community members;
- the program was designed to reach the entire community;
- the program has been in operation for a period of time which was sufficient to allow for assessment of its impact; and
- the community involvement component of the program was described in reasonable detail, either in the research literature, or in program documents.

The North Karelia Project

Background

In 1970, the two countries with the highest rates of cardiovascular disease (CVD) in the world were Finland and the United States. In Finland, the highest mortality rates from CVD occurred in North Karelia, a rural county in eastern Finland with a population of 180,000, spread over a fairly large geographic area. The North Karelia Project began in 1972, under the auspices of the Finnish health authorities, with the evaluation of the project under the direction of the National Public Health Institute (Helsinki) and the University of Kuopio (10–14).

The Program

A number of strategies were employed in attempting to achieve the program's objectives. In all strategies, attempts were made to influence as many aspects of community life as possible, and to involve community members in an active and meaningful manner. One strategy involved the provision of information about the CVD problem, factors such as smoking and diet that contributed to the problem, the kinds of things that the project would be doing, and how to change behavior to prevent CVD. Educational material was prepared for the mass media, and community members were urged to discuss the information among themselves. Frequent mention was made that the project was a response to a demand which had come from the community itself. The materials and communications tried to build on citizens' pride in their community, and urged them to participate in the program "for North Karelia," as well as for themselves. Communications came not only from the mass media, but from a trained group of informal opinion leaders from the community (15).

Another strategy utilized by the program involved the training of the population in the kinds of skills they would need to change the behaviors that were associated with risk of CVD. Rather than telling people how bad it was to smoke and eat fatty foods, people were given practical and specific suggestions about how to stop smoking and how to reduce fat consumption. The project enlisted the aid of community organizations in this process, and was assisted by a housewives' organization with over 300 local clubs in teaching people...
new food preparation skills that would lower fat intake. The program also attempted to build on the natural support systems of the community emphasizing the desirability of individuals in families, work groups, and neighborhoods working together to achieve the desired changes. Self-help groups were created to assist people to stop smoking and change their diet. The individuals who had been trained as informal opinion leaders also encouraged people to provide support to one another, either in self-help groups or in less formal ways, in order to change their behavior.

An additional strategy focused on making environmental changes that would facilitate and reinforce the changes that people were asked to make at the individual level. Businesses and institutions were encouraged to introduce smoking restrictions, local dairies and sausage-makers were asked to contribute by producing low-fat products, and local shopkeepers were involved in featuring low-fat items on their shelves.

The final strategy was that of community organization. Project leaders were in constant contact with local community leaders, including doctors, politicians, individuals working in the mass media, and leading business people. Project leaders were represented on many local boards and committees, and the trained network of local leaders was also enlisted to represent the project's interests at the local level.

Program Evaluation

The program's outcomes for its first five years of operation (1972–1977) were assessed by comparing risk factors and CVD in North Karelia with those of another similar county in eastern Finland. Results of the evaluation showed reductions in CVD risk factors in both North Karelia and the comparison county over the five years, but significantly greater reductions in North Karelia. Relative to the comparison county, North Karelia showed a 17 percent decrease in CVD risk for males and a 12 percent decrease for females. This related to a 4.1 percent decrease in serum cholesterol, a 3.6 percent decrease in blood pressure, and a 9.8 percent reduction in the number of cigarettes smoked each day.

A 10-year evaluation, completed in 1982, showed further reductions in risk factors in North Karelia, with a maintenance of the earlier reductions in serum cholesterol and blood pressure levels, and an even greater reduction in smoking (14, 16, 17). By 1977, relative to the comparison county, North Karelia was paying out approximately four million dollars less for disabilities related to CVD than was the comparison community, while the cost of mounting the program was estimated at approximately seven hundred thousand dollars.

The Stanford Heart Disease Prevention Program

Background

The Stanford Heart Disease Prevention Program (SHDPP) was initially conceptualized in the late 1960s by an interdisciplinary group at Stanford University in California. The first research/demonstration program established by the SHDPP was the Three Community Study, which involved three small towns in California, and operated from 1972 to 1975.

The more recent Five City Project, involving five larger California communities, grew out of the Three Community Study. It began in 1978 and will continue into the 1990s.

The Three Community Study

The Program

Three cities of approximately 15,000 residents each were selected to participate in the Three Community Study (18–20). One of the communities, Tracy, served as a no-intervention comparison community. The other two communities, Watsonville and Gil-
roy, received an intensive media campaign aimed at modifying risk behaviors in the entire community. In addition, in Watsonville, a number of individuals who had a higher risk of CVD were randomly selected to participate in an intensive, face-to-face instruction program designed to modify risk behaviors.

The media campaign utilized in Watsonville and Gilroy was an intensive one. The SHDPP produced about three hours of television programming, over fifty television “spots,” approximately 100 radio “spots,” several hours of radio programming, and a variety of materials for newspaper columns, stories, and advertisements.

The face-to-face intensive instruction for high-risk individuals in Watsonville was provided to four groups, each consisting of twenty-four to twenty-eight participants and their spouses. These groups met nine times over a 10-week period in local churches. The few individuals who chose not to participate in a group setting were visited in their homes. Sessions were conducted by a group leader, an assistant, and a dietician, and involved instruction in a variety of behavior change strategies, including self-monitoring of food consumption and smoking, modeling and guided practice of alternative behavior, charting of progress, and the use of token rewards.

Program Evaluation

Evaluation results indicated that residents of Gilroy and Watsonville, the two towns receiving the media campaign, showed greater knowledge about CVD and its associated risk factors, and demonstrated significant reductions in fat intake and plasma cholesterol relative to Tracy, the no-intervention, comparison town (5, 20, 21). Over the intervention period, the total risk of CVD was estimated to have declined by approximately 17 percent in Gilroy and Watsonville, while it increased by over 6 percent in Tracy. The greatest reduction in risk of CVD (30%) occurred in the individuals in Watsonville who received intensive instruction.

The Five City Project

Background

Despite the claims of the SHDPP that the Three Community Study was based on a “family-community model” (20), the project has been criticized as not being a truly community-based program, but merely a “quasi-experimental study of individuals conducted in a community setting” (22). In addition, while recognizing the value of combining face-to-face instruction with a media campaign, it was acknowledged that less costly methods needed to be found to supplement the media approach. The Five City Project (19, 23, 24) which began in 1978, was designed to be a truly community-based program, with an emphasis on involvement, ownership, and control by local community members. It was felt that ownership by the community would enhance the effects of the media campaign, result in better “reach” of the program to community residents, and provide for more effective programs that would be maintained in the long term because of community support. One of the major goals set by the program was the development of a self-sustaining health promotion structure in the communities involved.

The Program

The FCP involves five moderate-size cities in northern California, each with populations in excess of 30,000. Two of the cities were selected to receive the program, while the remaining three serve as comparison communities. The project consists of three components: broadcast media programs, print programs, and community interpersonal programs. The broadcast media strategies include TV and radio series, talk shows, news series, public announcements, and TV and radio “spots” designed to make people aware of health issues, provide people with specific information about health-promoting behaviors (e.g., how to make heart-healthy meals),
and encourage them to adopt health-promoting attitudes and behaviors. The print media materials consisted of newspaper articles, pamphlets, books, self-help kits, and the like, which could provide more detailed information than the broadcast media.

The community interpersonal programs involved many groups in the community—schools and colleges, work sites, voluntary organizations, health professionals, etc.—in a variety of programs. The strategies utilized ranged from more traditional health education approaches such as lectures and classes to more innovative approaches involving competitions and the use of local opinion leaders. In addition, attempts were made to effect environmental changes that would support the kinds of individual changes that residents were asked to make. For example, restaurants and grocery stores were asked to highlight heart-healthy items in their establishments.

Program Evaluation

The interim results available at this time show significant increases in health-related knowledge, and reductions in blood pressure and pulse rate (19). After 52 months of intervention, the risk of CVD in the intervention communities was estimated to be 13.4 percent and 7.4 percent less than in the comparison communities.

The Pawtucket Heart Health Project

Background

Pawtucket is a city of approximately 70,000 in the state of Rhode Island. The Pawtucket Heart Health Project (PHHP) was initiated by the administration of the city’s Memorial Hospital, which was becoming aware that heart disease was reaching epidemic proportions in the predominantly blue-collar community. Together with professionals from Brown University, the State Department of Health, and others, they began, in the late 1970s, to design a community-based program that they hoped would lower the incidence of heart disease in the city. With the aid of a broadly based committee of community leaders, they were successful in securing funding from the National Heart, Lung, and Blood Institute of the National Institutes of Health to conduct a six-year research and demonstration project based on the model that had been developed (25). Funding began in 1980, and is currently planned to continue through July, 1991 (26, 27).

The Program

The project is based on a strategy of “community activation.” This approach emphasizes (26):

... mobilizing community involvement in all aspects of heart health program planning, implementation, evaluation, and management by crafting a volunteer-based delivery system.

The approach is also based upon the concept of “reciprocal determinism,” which sees the individual community member as both an agent for and a respondent to change. It is hypothesized that one of the best ways to persuade individuals to change their own behavior is to enlist their assistance as volunteers in helping the program reach others in the community. In this context, the major function of the program developers is not to design and implement the intervention, but to build coalitions of community members who will take on the responsibility of mounting the intervention in their own agencies, institutions, and workplaces themselves.

One of the initial strategies used by the PHHP was the development of its Leadership Committee—a group of approximately 70 community leaders representing a wide array of community groups and interests, including ethnic groups, churches, municipal government, business, labor, and youth. These individuals helped identify and es-
establish contact with community organizations that might be interested in participating in the project. If, after an initial meeting with an organization "gatekeeper," permission is given for entry to the organization, the organization's "readiness for change" is assessed. If the organization is deemed ready, a heart-healthy task force is organized to set relevant goals for the organization, design programs to achieve those goals, and to implement and evaluate the programs. A similar approach is used with community schools. The task force is composed only of members of the organization (or parents, teachers, and staff of the school). The PHHP staff provides consultation and program materials or ideas (e.g., a group program for parents entitled "How to raise a healthy child," weight-loss kits), but the task force decides if, when, and how to implement the program.

Another strategy utilized by PHHP involves the use of volunteers to act as risk factor screeners/counselors, or to lead behavior-change groups. Volunteers are recruited in a variety of ways (through personal contact with PHHP staff or other volunteers, at speaking engagements, health fairs, etc.), and are formally trained by PHHP staff. Once certified, those volunteers who are risk-screeners are able to conduct "screening, counseling, and referral events" (SCOREs), in which they assess blood pressure, cholesterol, nutrition, smoking, obesity, and/or total risk in order to promote awareness of risk status and stimulate behavior change. These SCOREs are conducted at a variety of sites and events around the community. Those volunteers recruited to lead behavior-change groups are trained to utilize behavioral intervention techniques involving stimulus control and self-management methods to achieve desired behavior changes such as weight loss or smoking cessation.

Program Evaluation

Formative, process, and outcome evaluations have been conducted and are planned for the duration of the project. Results from early formative and process evaluation show a high level of participation in project activities, with over 880 volunteers recruited, over 3,600 individuals being screened in 14 companies, and 600 to 1,000 blood pressure readings being taken monthly at the community screening sites. More than 15,000 individuals were involved in heart-health behavior change programs in the project's first three years of operation.

The Minnesota Heart Health Program

Background

The Minnesota Heart Health Program (MHHP) began under the auspices of the School of Public Health at the University of Minnesota after approximately three years of program and evaluation design and preparation, the MHHP was funded in 1980 by the National Heart, Lung, and Blood Institute of the National Institutes of Health for five years of a nine-year research and demonstration project. Three communities of varying sizes are involved in the MHHP, and three communities matched in size to the intervention communities serve as comparisons. The program is directed by a principal investigator, a project officer, a co-principal investigator, and a board of directors and its executive committee. It is staffed by a total of 18 faculty members, 24 technical and supervisory personnel, and 64 part- and full-time workers.

The Program

The program utilizes three component strategies in achieving its goals: a media component, a direct education component, and a community organization component.

The media component was designed to increase awareness of CVD risk factors, and interest in cardiovascular health, in the general population. Programs, articles, and adver-
Advertisements were presented in the newspaper and on television and radio, supplemented by booklets, posters, and tapes that were provided to groups and individuals in the community.

The direct education component involved the development of screening centers, called Health Education Centers, which were located at several sites in the community. Individuals visiting these centers are assessed for the presence of risk factors (high blood pressure, high cholesterol levels, smoking, lack of physical activity), and are given a Health Passport which indicates their level of risk for CVD. Visits conclude with a brief interview in which the individual is given health information, and, if warranted, a referral is made to health classes in the community or to a medical practitioner. Additional direct education approaches include classes offered by MHHP or community agencies in smoking cessation, food preparation, and exercise. Youth educational programs in smoking prevention and cessation, physical activity, and nutrition are provided in the schools.

The community organization component began with a community analysis of each participant community, which involved interviews with community leaders, and an examination of the community’s ethnic makeup, demographic profile, religious groups, etc. This analysis was used to assist in the development of a Community Advisory Board which represented major social groups and regions of the city. Board members were given a six-hour workshop on heart health, a portion of which was devoted to developing a list of areas for action. Task forces, each chaired by a board member, were developed for each action area (e.g., smoking cessation, physical activity, eating, high blood pressure). The task forces then developed committees of volunteers which planned and implemented specific activities in the area of concern. For example, the task force on eating in one of the intervention communities helped create committees of 6 to 10 members each, including a grocers’ committee, a restauranteurs’ committee, a schools’ committee, and a cooking class committee. As a result of the restauranteurs’ committee, several restaurants began to identify items on their menus that were heart healthy.

Program Evaluation

The outcomes of the intervention will be assessed by comparing the three intervention communities with the matched comparison communities on measures of health behaviors, risk factor levels, and CVD-related morbidity and mortality. In addition, formative and process evaluation methods are being utilized to assess exposure to and awareness of heart health messages, the number of activities initiated by community groups, and the rate of participation of community members in project activities.

The Pennsylvania County Health Improvement Program (CHIP)

Background

The Pennsylvania County Health Improvement Program (CHIP) is a multiple risk factor, multiple channel intervention that was begun in the late 1970s in Lycoming County, Pennsylvania (31).

CHIP arose out of a meeting in 1977 between Pennsylvania’s secretary of health and Dr. Albert Stunkard, in which they reviewed the recently obtained results of an obesity control program in the county, and discussed the results coming out of the North Karelia project. They proceeded to enlist the aid of individuals from the health care system, academia, and the community. A small staff was recruited, a community steering committee was created, and a social marketing firm was hired to coordinate the mass media campaign that would form one of the key project components. The actual intervention began in 1980, after almost three years of planning.
The Program

One of the first and most important steps in developing the intervention was the creation of the CHIP steering committee. In identifying community members who would sit on this committee, the project enlisted the aid of the director of planning of Williamsport hospital, who was sympathetic with the aims of the project, and knowledgeable about influential members of the community who might be interested in getting involved. With the assistance of the steering group, the project undertook a survey (the “Community Resources Inventory”) of all community institutions, with a view to identifying any organization or institution of at least 100 members that might be approached to become involved in the project. These included health organizations, government, social service organizations, unions, businesses, schools, religious organizations, etc. Individuals from all 157 organizations identified were contacted by telephone to ascertain what kinds of health promotion activities were being carried out in their settings. The steering committee was the key element in the development of CHIP programs. The professionals played primarily a consultative role, helping to prioritize risk factors, and providing information on strategies that might be employed in preventive programs.

Major program components of the program were identified according to the “channel” through which they would operate: the mass media, work sites, the health sector, voluntary organizations, and schools. While the coordination of the media campaign was conducted by a professional firm, none of the media presentations was purchased. To keep costs down, the messages and materials used in the media campaign were taken from other programs (e.g., the American Lung Association, the National High Blood Pressure Education Program). The campaign was initiated with a seminar for local media leaders, during which their assistance was solicited. Materials and messages were provided to the various radio, television, and newspaper media, and messages in these media were supplemented by billboards, posters, and pamphlets. A bi-weekly health column, entitled “Ask CHIP,” appeared in the daily newspaper. Each of three risk factors (hypertension, smoking, and nutrition) was the focus of a four-month campaign, with the focus of the campaign rotating among the three risk factors. Messages were designed to motivate behavior change, provide information about practical steps to achieve change, and to inform community members of CHIP activities going on in the community.

The work site programs were initiated by contacts between the CHIP executive director and managers of the sites identified by means of the Community Resource Inventory. If management supported the program, an announcement was made to employees, and a “Heart Health Committee” was established. This committee coordinated the work of sub-committees which were struck to develop programs dealing with each of the risk factors—smoking, hypertension, inactivity, cholesterol, and obesity. Specific programs were designed by the committees, with consultation, as necessary, from CHIP staff. One of the programs that was especially effective in this area was a weight loss competition initiated by employees of a number of commercial banks in the county.

The development of programs via the health, school, and voluntary sectors proceeded in a somewhat different fashion than it had in the work sites. The County Medical Society was not enthusiastic about the project initially, so the major intervention in this sector involved a more limited program for monitoring hypertensive patients of 10 doctors in the community. The program in the schools consisted of a drug and alcohol program, a weight reduction program, and a smoking prevention program. An innovative component of the school program involved teaching the children how to influence their parents about health behaviors. For example, children were instructed how to talk to par-
ents who smoke. The voluntary organizations (e.g., social clubs, religious organizations) were approached in the same way as the worksites had been, but played a somewhat smaller role in the program, assisting in a large-scale hypertension screening program, and in smaller-scale nutrition and weight-reduction programs.

Program Evaluation

CHIP is being evaluated in a number of ways. Mortality and morbidity, risk factors, and health behaviors in the intervention community, Lycoming County, will be compared with those occurring in a reference community (Franklin County) in southern Pennsylvania. In addition, a variety of process evaluation strategies are being utilized to document the nature and intensity of the intervention, and the involvement of community members and organizations in program activities. Cost effectiveness of the program is being measured by keeping track of program costs, and costs associated with CVD in the two counties. The major evaluation results to date indicate that the number of organizations involved in health promotion activities had doubled in Lycoming County between 1980 and 1983, while the number in the reference county had decreased by 42 percent over the same period.

TEN GUIDELINES FOR COMMUNITY MOBILIZATION FOR HEALTH PROMOTION

From these programs that have been reviewed, it is possible to develop guidelines for community mobilization for health promotion (see Table 1). In proposing such guidelines, we also draw upon the work of others who have offered principles for community mobilization (32–34). What follows is not a cookbook recipe for community mobilization, but rather a set of general guidelines which interventionists should be sensitive to in adapting programs to local contexts.

1. Community Involvement. Community members should be involved in all phases of the program's development: identifying community needs, enlisting the aid of community organizations, planning and implementing program activities, and evaluating their results. Wide and comprehensive representation of community members on program planning bodies provide for a sense of ownership and empowerment that will enhance the program's impact. One of the best examples of this kind of involvement occurred in the Pawtucket Heart Health Project. The key organizing body in this project was the "Leadership Committee," which consisted of leaders from almost every conceivable sector of the community: business, ethnic groups, churches, government, youth. Programs within individual settings in Pawtucket were developed and run by task forces comprised only of members from those settings. Large numbers of volunteers were recruited to screen for risk and to lead behavior change groups. Other programs provided for similar involvement of community members. The North Karelia program employed trained community opinion leaders and established community organizations in developing and implementing program activities. The key organizing body of the Pennsylvania CHIP program was a community steering committee which oversaw the development of preventive programs, and encouraged community organizations to get involved.

2. Planning. Many of the programs that were reviewed took a considerable amount of time, often two or three years, to move from the initial conceptualization stage to the point at which services are delivered. The concept for Pennsylvania's CHIP, for example, was initially developed in April of 1977, but active programs did not begin until three years later, in 1980. A similar period of time elapsed between the early discussions concerning the
TABLE 1. Guidelines for Community Mobilization for Health Promotion

1. COMMUNITY INVOLVEMENT
   Community members should be involved in all phases of the program's development.

2. PLANNING
   Development of an effective community intervention requires careful planning, which may often take two or three years to accomplish.

3. NEEDS AND RESOURCES ASSESSMENT
   Prior to implementing a community-based program, attention needs to be given to identifying the health needs or problems of that community, and the resources that are available to address those needs.

4. A COMPREHENSIVE PROGRAM
   The programs with the greatest promise are comprehensive, in that they deal with multiple risk factors, utilize several different channels of program delivery, are aimed at several different levels (individuals, families, social networks, organizations, the community as a whole), and are designed to change not only risk behaviors, but the factors which sustain them (e.g., motivation, the social environment).

5. AN INTEGRATED PROGRAM
   The program should be integrated, in that each component of the program should reinforce the other components.

6. LONG-TERM CHANGE
   Community-based health promotion programs should be designed to produce stable and lasting changes in health behaviors and the environment. This requires long-term funding of the program and the development of a permanent health promotion infrastructure within the community.

7. ALTERING COMMUNITY NORMS
   In order to have a significant impact on an entire organization or community, the program must be able to alter community or organizational norms and standards of behavior. This requires that a substantial proportion of the community's or organization's members be exposed to program messages, or preferably, be involved in program activities in some way.

8. RESEARCH AND EVALUATION
   A comprehensive evaluation and research process is necessary, not only to document program outcomes or effects, but to describe its formation and process, its effects on community structures, and its cost-effectiveness.

9. SUFFICIENT RESOURCES
   The funding, personnel, and organizational resources available for program development must be adequate to mount a program of sufficient magnitude to have an appreciable impact on the entire group, organization, or community for which the program is intended.

10. PROFESSIONAL AND COMMUNITY COLLABORATION
    An effective community-based health promotion program requires the active collaboration of health promotion experts and community leaders.

devlopment of the Stanford Heart Disease Prevention Program and its implementation. This time was devoted to planning the intervention. Planning is crucial to the development of an effective intervention. Planning involves identifying the health problems in the community that are preventable through community intervention, formulating goals for the project, identifying target behaviors and environmental characteristics that will be the focus of the intervention efforts, deciding how stakeholders will be involved in the project's development, and building a cohesive planning group.

3. Needs and Resources Assessment. Prior to implementing a community-based program, attention needs to be given to identifying the health needs or problems of that community, and the resources that are available to address those needs. Almost all of the programs we reviewed assessed the incidence
and prevalence of the identified health problem in their communities prior to implementing the program. In addition, a number of programs assessed community and organizational resources and readiness for involvement in the program. In Pawtucket, for example, each organization that expressed an interest in becoming involved in the heart health program received a questionnaire designed to determine the organization's "readiness for change." The Minnesota Heart Health Program conducted a "community analysis" of the community's ethnic, social, religious, and economic make-up, and conducted interviews with community leaders to ascertain the community's commitment to health. CHIP compiled a "Community Resource Inventory" of all institutions of at least 100 members in Lycoming County, detailing their activities in health promotion.

4. A Comprehensive Program. The programs with the greatest promise are comprehensive, in that they deal with multiple risk factors, utilize several different channels of program delivery, are aimed at several different levels (individuals, families, social networks, organizations, the community as a whole), and are designed to change not only risk behaviors, but the factors which sustain them (e.g., motivation, the social environment). Almost all of the CVD-related programs reviewed attempted to change at least three of the behaviors associated with CVD risk. Stunkard et al. argue that a multiple risk factor approach is more efficient than a single risk factor approach, in that it requires only a modest additional effort to change other risk factors once one has been modified (31). All the programs reviewed also utilized several "channels" of program delivery. The Pennsylvania County Health Improvement Program, for example, was delivered through the mass media, work sites, health care professionals, the schools, and voluntary organizations. Many of the programs were also comprehensive in that they emphasized changes in factors which underlie risk behaviors, as well as the behaviors themselves. The Stanford Five City Project, for example, attempted to change awareness of CVD, knowledge of CVD risk factors, motivation to change, the skills necessary to produce change, and the social and environmental supports in the family, community, and workplace necessary to maintain behavior change. Preston, Baranowski, and Higginbotham have argued that different "channels" affect different segments of the community and that these channels should be used sequentially to reach different community segments (35). Using diffusion of innovation theory, they suggest, for example, that mass media interventions are likely to influence "early adopters" of an innovation, whereas interventions using informal social networks may be necessary to influence "late adopters."

5. An Integrated Program. The program should be integrated, in that each component of the program should reinforce the other components. For example, many of the media broadcasts in the Stanford Five City Project were used to promote awareness of programs in the community (e.g., a radio series on smoking cessation publicized community programs that community members could attend to help them quit). In describing CHIP in Pennsylvania, Stunkard and his colleagues pointed out that "programs within one channel exert powerful influences upon programs in the other channel" (31). Programs should also be integrated in the sense that they are embedded in the settings in which people live their lives rather than being delivered by professionals in clinics (9). CHIP provides a good example of this point, in that the component of the program that was least successful was that which was offered through the physicians in the community, in their offices, while the most successful components were those which were offered in the workplace.

6. Long-term Change. Community-based health promotion programs should be designed to produce stable and lasting changes
signed to produce stable and lasting changes in health behaviors and the environment. Short-term, time-limited interventions are unlikely to have a major impact on people. One of the key goals of the Five City Project was to carry out the program in a way that (19):

...created a self-sustaining health promotion structure embedded within the organizational fabric of the communities that continued to function after the project ended.

Many of the programs (e.g., the Pawtucket program, CHIP) attempted to produce such structures by creating permanent heart health task forces, committees, and programs in schools, organizations, and the community that would continue to exist after the "project" or the research ended. In addition, even during their research-demonstration phases, most of the programs were funded for several years, which allows for a more permanent health infrastructure to develop.

7. Altering Community Norms. In order to have a significant impact on an entire organization or community, the program must be able to alter community or organizational norms and standards of behavior. This requires that a substantial proportion of the community’s or organization’s members be exposed to program messages, or preferably, be involved in program activities in some way. This was achieved in Pawtucket by involving more than 15,000 of the city’s 70,000 residents in at least one of the heart-health behavior change programs in the project’s first three years of operation (25). The mass media can be particularly effective in reaching large numbers of individuals. Evaluation of the mass media campaign in Lycoming County, Pennsylvania, indicated that 58 percent of the county’s residents were aware of CHIP at the end of its first year, and 76 percent were aware of the program at the end of its second year (31).

8. Research and Evaluation. A comprehensive evaluation and research process is necessary, not only to document program outcomes or effects, but to describe its formation and process, its effects on community structures, and its cost-effectiveness. All of the programs we reviewed utilized a quasi-experimental design, comparing the intervention communities to reference communities who did not receive the intervention, to assess the effects of the program on health behaviors and CVD. In addition, most of the programs conducted extensive research designed to document the process of the intervention. In the Pawtucket Heart Health Program, for example, every individual who participated in a PHHP-sponsored activity completed a “contact card” (coded for type of activity, time, and location) that was used to create a profile of those involved in the various programs, and to document the number of “exposures” to the program that each community member had during the course of the project. In addition, content analyses of the newspapers were conducted to ascertain the number and kind of health-related articles that appeared while the project was operating. The CHIP evaluation of its work site programs included an examination of staff logs; questionnaires about health status, beliefs, and behaviors; information about absenteeism and insurance utilization; and a recording of the number of hours of volunteer and professional services.

9. Sufficient Resources. The funding, personnel, and organizational resources available for program development must be adequate to mount a program of sufficient magnitude to have an appreciable impact on the entire group, organization, or community for which the program is intended. Funding for health promotion and disease prevention programs is often scarce and/or time limited. The literature is replete with well-researched demonstration projects that are discontinued after the research because of
time-limited funding (36). Other programs survive on a shoestring budget. Unless full-time staff can be funded, the integrity of the program will be compromised in terms of its ability to be comprehensive, integrated, and ongoing in nature. Thus, it is important to rally broad-based community support for adequate finances, which encourages the widespread implementation of health promotion programs. This is not to say that programs can ignore the costs of their interventions. CHIP was similar in many respects to other CVD prevention programs (e.g., the Five City Project, the Pawtucket program, the Minnesota Heart Health Program), but operated on a much smaller budget (less than US$ 150,000 a year) by making use of resources available in the community and educational materials that had already been developed by other programs.

10. Professional and Community Collaboration. An effective community-based health promotion program requires the active collaboration of health promotion experts and community leaders. The programs we reviewed varied a great deal in terms of numbers of paid staff, numbers of professionals involved, and who was ultimately responsible for program decision making (the experts or the community leaders). Programs which expressed the greatest satisfaction with the way this collaboration was structured were those in which the community representatives took the lead role in decision making, with the experts/professionals providing resource materials and consultation. In describing this collaboration in CHIP, Stunkard found (31):

... surprisingly, that the purely professional contributions, although essential, were less important than had been expected. The major professional contributions at CHIP's beginnings were to make decisions such as choosing risk factors and ordering their priorities. The rationale for these decisions was easily grasped by local nonprofessional planners and readily accepted.

In contrast, the Minnesota Heart Health Program, which was administered primarily by a university-based research staff, experienced tensions between the university and community. Blackburn et al. (28) talk about the need to reconcile the needs of the researchers, who are concerned with the scientific aims of the project, with the need to develop a sense of program ownership in the community.

CONCLUSIONS

In the last 15 years, there has been a rapid growth in community-based health promotion programs, particularly those aimed at the prevention of CVD. In this article, we have focused on describing the key processes involved in organizing these programs. Based on a review of several programs, we have outlined 10 guidelines for community mobilization for health promotion. We believe that these guidelines provide a working model which can help researchers and practitioners in developing partnerships with communities for health promotion programs.

While we believe that the programs we have reviewed have much to teach us about community-based health promotion, we also recognize two important limitations to this literature. The first limitation is a methodological one. This article focused on the processes of community-based health promotion rather than on the outcomes. To date, only the North Karelia and Stanford studies have provided follow-up data on changes in CVD risk factors and rates of CVD in the community. While these data have indicated the effectiveness of these programs, it is important to determine the replicability of their findings. The other programs we reviewed have outcome evaluations in progress, which should add significantly to the research base regarding the effectiveness of CVD prevention programs.
The second limitation is a conceptual one. While community-based CVD prevention programs have gone beyond the individual level of analysis to a community development approach, these programs still ignore the importance of political and economic structures for health. The following statement made by McKnight makes this point very well (8):

Consider the reality of those poorest in modern societies. Income is inadequate. Housing is dangerous. Automobiles rule the limited public space, schools fail to liberate children, young people find no economic space, crime is epidemic and drugs and alcohol a cure. In the local hospital, signs of this reality abound in maladies from home accidents, traffic injuries, interpersonal violence, drug overdoses, poisoning, premature pregnancy, alcoholism, etc. The list is well-known—an inventory of health costs of powerlessness.

While the programs described in this article may be helpful, they do not address the problems outlined by McKnight. If we are serious about trying to promote health on a large scale, we must move beyond the community development approach, which underlies existing CVD prevention programs, to a social action approach which recognizes that the unequal distribution of power and wealth in society creates stress and health problems for the poor, minority groups, and women in our society (37). The social action approach to health promotion involves consciousness-raising among both health educators and the public about the relationship between socioeconomic conditions and health (38, 39). While current efforts have emphasized the technology of health promotion, this alternative approach emphasizes the politics of health promotion. Community health educators must work with community groups and social movement organizations to advocate for social policies emphasizing a more equitable distribution of power and wealth. The implications of these points for this article are that the types of programs reviewed here may be useful, but their limitations should be acknowledged. Further advancement in community health promotion requires political and economic change, as well as individual and community change.

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