Training of a Community Board to Increase The Effectiveness of a Health Center

SAMUEL J. BOSCH, MD
ROLANDO MERINO, MD
RUTH ZAMBRANA, PhD

SINCE THE ENACTMENT OF MEDICAID AND MEDICARE legislation in the United States, the total national health expenditure has risen from about $39 billion in 1965 to about $139 billion in 1976, an increase from 5.9 to 8.3 percent of the gross national product (*1*). During this period, consumer demands for change in the health care system and, in general, for participation in the institutional decisions affecting their lives have escalated significantly (*2,3*). In partial response to these demands, Federal legislation has specifically required the integration of consumers into the planning, management, and evaluation activities of federally funded health programs. Among these programs are the Office of Economic Opportunity's neighborhood health centers of the 1960s and, more recently, the health maintenance organizations and the health systems agencies. The laws establishing these programs stipulate high levels (51–60 percent) of consumer participation in planning and health policy making activities.

Despite the legislative intent, it is commonly agreed that effective, broad-based consumer participation generally has not been achieved. As Pecarchik commented, "the presence of consumer representatives on the management board, even though these representatives account for 51 percent of the membership, does not in itself guarantee meaningful consumer participation in decision making and planning. The most salient factor in meaningful participation by the consumer membership is its preparedness" (*4*).

However, it is precisely in their lack of preparedness that consumers are at the greatest disadvantage when dealing with health care issues. They are generally unfamiliar with the framework and vocabulary of health care delivery and planning (*4*). Furthermore, they

The authors are in the Department of Community Medicine, Mount Sinai School of Medicine of the City University of New York. Dr. Bosch is professor and deputy chairman of the department, Dr. Merino is an assistant professor, and Dr. Zambrana is a research associate.

The study was supported by the Health Services Improvement Fund, Inc., and was described in a paper presented at the Eighth International Scientific Meeting of the International Epidemiological Association, held in Puerto Rico, September 18–23, 1977.

Tearsheet requests to Samuel J. Bosch, MD, Department of Community Medicine, Mount Sinai School of Medicine, Fifth Ave. and 100th St., New York, N.Y. 10029.

frequently lack access to the information they need for rational planning, evaluation, and decision making. If information is available, they are often unable to interpret it (*5*). Not surprisingly, the community boards have had minimal impact on the health care delivery system (*6*). Their lack of preparedness has diminished their capacity to influence change.

In this report we present the results of an educational project aimed at improving the health care knowledge and skills in group planning and policy making of the members of a community board. The board governs a bicultural and bilingual neighborhood health center in the East Harlem section of New York City.

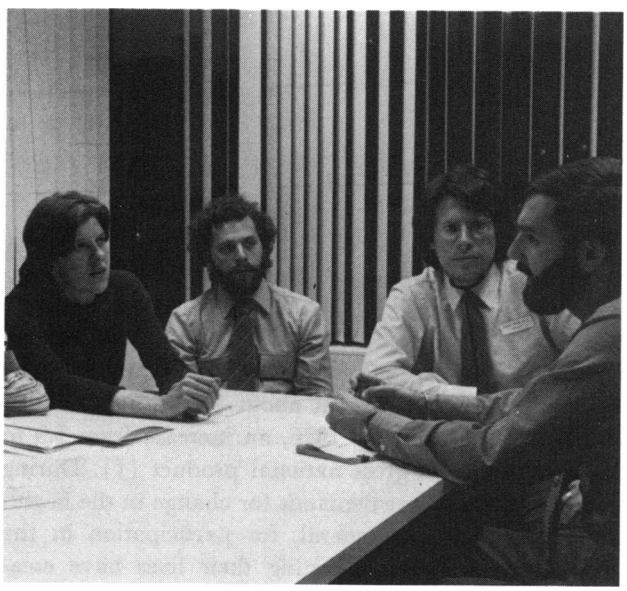
Background

Two institutions in that community—Mount Sinai School of Medicine of the City University of New York and the East Harlem Tenants Council Neighborhood Health Center—joined in this project. The medical school represents the union of a large voluntary hospital and a public university. The neighborhood health center, a primary care giver for families in the area, is governed by the East Harlem Tenants Council, an organization of the local Puerto Rican community.

East Harlem is located in the northeast corner of Manhattan, north of 96th Street and east of Fifth Avenue. During the early 1900s it was a neighborhood of Italian and Jewish immigrant workers. Today people of Puerto Rican origin make up 45 percent of the population, blacks another 35 percent, whites of direct European ancestry 17 percent, and "others" 3 percent (unpublished paper, "East Harlem Community Study," by L. Johnson, A. Lynch, and O. Rivera, Mount Sinai School of Medicine, City University of New York). The area, always inhabited by relatively low income groups, has deteriorated into the kind of ghetto for which New York City is infamous. Many households have no income from employment, and most persons who work hold low paying jobs. Multiple social problems and a high level of morbidity characterize the population.

From the outset, the founders of Mount Sinai School of Medicine made the identification and solution of community health problems a clear goal of their institution (*7*). To implement that commitment they established a generously endowed Department of Community Medicine (DCM). One of the DCM's principal mandates is to serve as a bridge between the resources of the medical center and those of the surrounding community in joint problem solving. The department wants to contribute to the improvement of health care services in East Harlem without assuming direct responsibility for the administration or provision of health care services. The services of the department entail both stimulating and responding to requests from community groups for technical assistance in learning, planning, implementation, and evaluation.

Staff members participate with a variety of consumer and provider groups in identifying and solving problems related to the organization and provision of health care, while attempting to foster interorganizational linkages to encourage rational use of existing health and health-related resources and ultimately to attain a logical regionalization of health services in the area (*8*). The long-range service goal of the DCM is to change the way health care services are financed and organized in East Harlem as a means of enhancing the health status and lifestyle of the community.



In 1974, the East Harlem Tenants Council (EHTC) requested from the department technical assistance in the planning and development of its neighborhood health center. The center has been in operation since July 1, 1975, and now serves approximately 6,000 persons of varying socioeconomic levels. It is planned for a population of 30,000. The EHTC's board is the policy-making body for the center. The board is composed of 18 persons who are not health care providers. They come from various disciplines and have different educational backgrounds. The majority are East Harlem residents and consumers of services in the health center. Leadership of the board is vested in its executive committee, composed of a chairperson, vice chairperson, treasurer, secretary, and two members at large.

The board's policies are implemented through the health center's director (*9*). The director is responsible for planning, implementation, evaluation, and control of center activities and the performance of the center's tasks. The director is also an ad hoc member of the board. The DCM, under a contract with the board, maintains a continuing consultative role in evaluating the center's programs.

Methodology

In this project, the department's staff employed a process that allowed the learners to be actively involved in defining educational objectives, selecting the teaching methods, and identifying the procedures that would be used in measuring the learning (9). In keeping with the DCM's participatory approach to change, the learners paid for the educators' teaching them. During the 12 months of the project, a committee comprising four DCM staff members and the director of the center were responsible for planning and implementing the training. They met weekly; occasionally they were joined by education consultants in order to organize and monitor the progressive stages of the process.

In the definition of the educational objectives, two main procedures were used: (*a*) a questionnaire was administered to board members to identify their perception of learning needs and (*b*) before the formal training a Puerto Rican sociologist conducted preliminary observations of three consecutive board meetings. In addition, four interviews were held with the six members of the board's executive committee during the analysis of the answers to the questionnaires and the sociologist's observations. Trainees and trainers agreed that the outcome objectives to be achieved by the trainees would be acquisition of the ability to:

- Read monthly statistical reports critically (reports containing data on the effectiveness and efficiency of the health center).
- Recognize utilization and productivity trends.
- Use data reports to decide among alternative technical recommendations made by the center's staff.
- Critically analyze expenditures in relation to the health needs of the community and the health center's objectives and sources of income.

In addition to acquiring definable analytical skills, it was agreed that the members should acquire an understanding of the vocabulary and basic concepts of (*a*) community health needs, demographic data, and epidemiologic data such as the social and cultural factors that may affect incidence of disease; (*b*) demand and use of health services; (*c*) utilization and productivity trends in the care of a defined population group; (*d*) budgeting for programs; (*e*) continuing evaluation of the center's performance, with emphasis on the effectiveness and efficiency of its programs, and (*f*) definition of health policies and intermediate and long-term goals and objectives.

These objectives were formulated, taking into consideration that the skills and knowledge would have to be acquired by the board members by the end of 1 year and with a maximum of 15 hours available for formal training sessions (*9*).

The DCM team defined the training methods on the basis of the answers to the questionnaire and the suggestions of the chairperson and members of the board's executive committee. It was decided that the formal training sessions would be part of the board's regular monthly meetings and that the most appropriate teaching procedures would be (*a*) to present educational materials of incremental complexity in group discussions, (*b*) in the discussions to analyze actual performance data on the center (the center's director would present the data), and (*c*) to encourage discussions between the board members and the DCM staff during the training sessions. For example, during the first 3 months the discussions were geared toward the understanding of terminology and concepts. At the end of the project, an entire session was devoted to the analysis and approval of the center's program and budget for 1977–78. At the request of board members, the sessions were initially limited to 1 hour. However, as the project evolved, the sessions were gradually prolonged from 1½ hours to 2 hours (again at the request of the trainees). The DCM technical assistance team served as the primary educational resource throughout the project.

Evaluation

In evaluating how much board members had learned, a combination of summative and formative procedures were utilized (*10*). The summative procedures included the administration of a multiple choice questionnaire to board members (*a*) to measure knowledge gain and (*b*) to obtain feedback. The chief formative procedure to evaluate process, which supplemented the test results, was the sociologist's observations of the board as a work group.

A multiple choice questionnaire was pretested on a sample population with background similar to that of

the board members. It was administered to the learners at the beginning of the first session and at the end of the last training session. Sixteen questions addressed issues of medical care organization, financing mechanisms, and evaluation of the effectiveness and efficiency of the center, particularly the analysis of HEW indicators.

The purpose of feedback was to provide the trainers with an assessment of the learners' understanding of which goals had been attained at the end of the project. Feedback was obtained through a final session in which another questionnaire was distributed; it was followed by an informal 45-minute group discussion.

The field observations were focused particularly on documenting participation in decision making, on the use of decision-making skills, and on the promotion of change through new policies. In addition, a feedback questionnaire administered to the board members during the project was used to modify and improve the training as it evolved. The field observations were conducted and objectively logged by the sociologist who participated in the identification of the educational objectives. The sociologist's role was to attend, as an observer, all board meetings and executive sessions, in addition to the curriculum development meetings, to collect detailed descriptive data, and to analyze these observations in terms of the objectives of the program.

The field data were analyzed qualitatively, particularly to examine the following behaviors: level of participation, appropriate use of terminology, understanding of the relationship between income and expenses, and application and use of data to make policy decisions.

Limitations of the Method

There were several methodological limitations in this study that derived particularly from the nonprofit character of the community organization. First, the "learners" were not a captive audience. Their attendance at board meetings was voluntary, and most of them had employment obligations to meet. Consequently, attendance ranged between 14 and 6 persons at the different meetings. It should be pointed out, however, that a core of board members, the majority of whom belonged to the executive committee, attended consistently. Some members who attended irregularly reported feeling "lost" when they did appear.

Second, members had different levels of knowledge and skills before the training got started. Some were professionals who had graduate and post graduate education; the nonprofessionals worked in semiskilled occupations. Another important limitation was the fact that three new members entered the board half way through the evaluation of the project.

Results

The data collected in this study demonstrated that the members of the board gained basic knowledge about health care delivery and acquired decision-making skills that they applied in governing and in introducing needed changes. The data also reflected an actively growing participation by the trainees in the educational sessions.

The multiple-choice pretest was answered by 10 of the 14 members and the posttest by 8, including the 3 who were new to the board. These numbers are so small that the statistical analysis is meaningless. However, a major gain in knowledge was reflected in the responses to questions on the center's performance, especially as they related to measures of utilization, effectiveness, and productivity.

The analysis of the field observations revealed much valuable information in respect to attainment of the educational objectives that the project was set up to achieve.

All board members definitely increased their level of participation in the group discussions. According to the field observations, in every meeting at least one question was asked by every board member present and four of the members usually initiated or maintained dialog with the other trainees and the trainers. The four most active participants were members of the executive committee. As the project evolved, the formulation of pertinent questions, opinions, and suggestions about the management of the health center gradually became more sophisticated. During the last five sessions the trainees primarily raised questions related to financing issues, engaged in discussions on sources of income to the center, the nature of expenditures, and the relation of income to expenditures.

Substantial learning occurred in the use of appropriate terminology and in the handling of concepts related to the operation of the center. For example, clear distinctions were made regarding who is a "registrant" and who is a "user," what is an "encounter," a "utilization rate," an "office visit" and an "outreach visit." Of utmost concern was development of members' ability to use and interpret terminology and concepts employed to evaluate the performance of the center. For example, measures of effectiveness were understood as

the comparison between attained and planned objectives, activities, and resources. This understanding in turn enabled the members to distinguish between concepts of efficiency and effectiveness.

The most outstanding changes were observed in the board members' ability to extrapolate data from the management information system and request additional specific information, such as hospital referrals, in order to recommend changes in the scope of services and protocols at the center. For example, the presentation of data on no-show rates stimulated active discussion and a request for a preliminary study in order better to understand the factors that influence these rates.

The board members appeared to understand the notion of limited resources for unlimited health needs. During the presentation of budgetary concepts, questions were raised that reflected knowledge of the relationship between income and expenses and sources of income—issues such as limited funds and the balancing of the budget in terms of expenditures and sources of income; cost of home visits versus office visits; and ultimate costs of preventive versus curative medicine. In this meeting board members exhibited an understanding of the differences between provision of services and costs that positively demonstrated their grasp of new knowledge. They further requested a monthly summary of expenditures to keep abreast of this aspect of operations. During the last two learning sessions the board members became involved in complex discussions of priorities as they are reflected in the formulation of objectives for the health center. There have also been several discussions on the identification of activities that would enable the center to operate more efficiently. For example, the cost of pediatric care compared with adult care and the impact of both on the health status of the population, as well as the cost of preventive care as opposed to curative care, have been discussed briefly. The need to establish health priorities was recognized as a fundamental planning concept.

An important outcome of the training has been the acquisition of skills in the interpretation and use of monthly statistical data pertaining to the health center's operation. Following a series of sessions, the board suggested standardizing a similar periodic information system for the operation of all programs presently under the aegis of the council. How the enhanced knowledge and skills of board members were used to effect constructive change was best demonstrated in the handling of the reorganization of the EHTC's housing program. At the board meeting of March 3, 1977, after the training session, the housing director was scheduled to present her report to the board. The vice chairperson stated: "In view of our training we will now demand of the project director a systematic quarterly report in order for us to evaluate what has been done and begin to set policy based on objectives." He continued to express the board members' concern that "many times we have to make decisions and/or suggestions without information."

There has been a persistent demand from the board members to discuss topics not originally scheduled in the curriculum, for example, assessment of the quality of care. They wanted this topic addressed in a supplemental training session.

As mentioned previously, the sessions were lengthened from 1 to 2 hours at the request of board members. Even so, it became necessary to set limits on the questions and answers raised by board members, particularly when the questions were not related to the material being covered in the particular session.

Additional training sessions were formally requested by the chairperson of the board. He requested a special one for himself and additional sessions for those members who desired further to expand their knowledge in the areas already presented in the training program. One board member protested, in the feedback questionnaire, that "the time constraints resulted in two problems: board members remained with questions unanswered and the trainers were not able to cover their agenda."

Feedback Findings

Seven of the eight respondents to the feedback questionnaire rated the project as a whole excellent, and the same number found the seminar discussions informative.

In the responses to the feedback questions about fulfillment of the cognitive goals, all the learners agreed that they had acquired (*a*) a better understanding of the technical terminology of health care, (*b*) skills that would enable the board to review health center data and ask the director more specific "how, where, and what questions," and (*c*) skills that would enable the governing body as a whole to be more effective in making decisions and achieving constructive changes in the center. Eighty percent of the board members claimed that they had gained knowledge enabling them to understand data regarding the utilization of the center, and 66 percent responded that they had learned the meaning of the indicators that are requested in the report of neighborhood health center activities to the Department of Health, Education, and Welfare. Only

54 percent stated that they had acquired knowledge in fiscal matters. The acquisition of legal knowledge was given the lowest rating. Further training was requested by 75 percent in understanding epidemiologic data, by 50 percent in understanding how to measure quality of care, and by 40 percent in acquiring knowledge in fiscal matters.

Discussion

It is difficult to assess an educational project that attempts to develop complex knowledge and problem-solving skills in a relatively short period. All who have engaged in curriculum study and design can understand the complexity of the task we addressed. Moreover, in interpreting the results of such projects, it is important to analyze not only the learning that took place but also the methodologies used, how they were modified by the real-life problems of a community organization, and their applicability to other settings with similar learning needs.

With regard to curriculum building, the training would probably have confronted serious implementation problems if the members of the board, as potential learners, had not been actively involved in that process. Their participation in the definition of their learning needs, their approval of the identified educational objectives, and their endorsement of the educational methods selected enhanced their motivation to learn. Integration of the scheduling and content of the learning sessions with the agenda of regular board meetings gave relevance to the subjects.

To acquire qualitative data on the behavior of board members, the collected field notes and the recorded log were practical, reliable tools, easy to use in any setting. They gave an accurate and objective picture of the level of participation, how terminology was employed, and how data were used in making policy. But collecting these behavioral data was not without problems. Accepting the observer's presence during the normal deliberations of the board was at first difficult and depended heavily on such factors as the observer's skills, cultural background, and personality. The validity of the collected data depended then on the observer's uninhibiting and unobtrusive participation as well as on the objectivity of the observations.

It was difficult to assess the depth of the knowledge that was gained. Facts and the understanding of fundamental concepts were undoubtedly acquired, but the board members' capacity to analyze data and to make judgments and decisions could only be determined through qualitative information. At what rate knowledge and skills were retained once the project was completed is even more difficult to determine.

The learners themselves were concerned with this issue and continue to seek ways to retain, in their board meetings, some form of technical assistance in order to "facilitate" their analysis of routine information and their capacity to implement planned change. Their particular interest now is in learning to measure quality of care and in developing a mechanism for continuing quality assessment, a direct outcome of their concern with retaining and enhancing their newly acquired knowledge and skills.

Beyond the actual learning that took place, an important byproduct of this experience has been the development of a closer working relationship between the community organization and the department of community medicine. The interaction among members of the board and members of the department during the training sessions have helped to establish better communication and strengthen rapport. The board members have a much better understanding of the role that the medical school is assuming in the community, and the attitudes of the community organization toward the school have improved.

References

1. Califano, J. A.: Keynote address presented at the American Medical Association, Fairmont Hotel, San Francisco, June 19, 1977, HEW News, U.S. Department of Health, Education, and Welfare.
2. Gartner, A., and Reissman, F.: The service society and the consumer vanguard. Harper & Row, New York, 1974.
3. Metsch, J. M., and Veney, J. E.: Consumer participation and social accountability. Med Care 14: 283–293 (1976).
4. Pecarchik, R., Ricci, E., and Nelson, B.: Potential contribution of consumers to an integrated health care system. Public Health Rep 91: 72–76, January–February 1976.
5. Greer, A. L.: Training board members for health planning agencies. A review of the literature. Public Health Rep 91; 56–61, January–February 1976.
6. Metsch, J., and Rosen, H.: Consumer participation in health delivery. N.Y. Univ Educational Q 7: 16–20, winter 1976.
7. Popper, H., and Koffler, D.: The goal. J Mt Sinai Hosp 34: 401–407 (1967).
8. Bosch, S. J., and Deuschle, K. W.: The role of a medical school in the organization of community health services. Bull NY Acad Med 53: 449–464 (1977).
9. Merino, R., Bosch, S. J., and Zambrana, R.: Evaluation as a tool for community education. *In* Evaluation of child health services: the interface between research and medical practice. Edited by S. J. Bosch and J. Arias. DHEW Publication No. (NIH) 78–1066, U.S. Government Printing Office, Washington, D.C., 1978, pp. 257–265.
10. Bloom, B. S., Hastings, J. T., and Madaus, G. F.: Handbook on formative and summative evaluation of student learning. McGraw Hill, New York, 1971.