

NEIGHBORHOOD HEALTH CENTERS AND EVALUATION LITERATURE

AN EXTENSIVE amount of literature pertaining to the delivery of health care to the poor and the evaluation of ambulatory care delivery systems, with specific reference to neighborhood health centers, was reviewed under Public Health Service grant CS-H-000002-01 ("An Evaluation Framework for Neighborhood Health Centers," Mary E. W. Gross, PhD, principal investigator). One of the end products of this literature review was a 344-item annotated bibliography which contained abstracts of articles, books, and reports published between 1963 and 1972. The compilation presented here is a representative sample of that work. We tried to choose abstracts which best exemplify the content and the original categorization.

These 11 entries on neighborhood health centers and 26 entries on evaluation were selected by Miss Margaret H. Mushinski and Mrs. Judith E. Brewin, Cornell University Medical College, department of public health. Oscar Ochs provided special assistance in selecting entries from the entire bibliography. Tearsheet requests to Miss Margaret H. Mushinski, 1300 York Ave., New York, N.Y. 10021.

Although the original bibliography was arranged according to specific subject methodology, or both, these 37 entries have been compressed into two basic categories. These categories, namely neighborhood health centers and evaluation, represent not only a majority of the abstracts included in the original bibliography but also the primary focus of the project. The citations have been organized alphabetically by author within these two sections.

NEIGHBORHOOD HEALTH CENTERS

Bryant, T. E.: Goals and potential of the neighborhood health centers. *Med Care* 8: 93, 94, March-April 1970.

The author presents a positive view of neighborhood health centers, which, he feels, challenge the interests and commitment of a variety of health workers. Designed to facilitate learning better ways of providing care for the needs of the poor, they have become a research and development tool for developing more responsive services, and they have also provided new jobs for neighborhood residents.

The neighborhood health center can, and should, be viewed and analyzed from many perspectives. It is a health institution, a social institution, a training and employment agency, a financing mechanism, and a political institution. More important, perhaps, it reflects and changes the population and environment it serves.

Chenault, W. W., and Brown, D. K.: Consumer participation in neighborhood comprehensive health care centers. Vols. 1 and 2. National Technical Information Services, Springfield, Va., 1971.

By means of a 20-page, closed-ended questionnaire administered to 160 participants in nine health centers, of open-ended interviews with 140 participants in the same centers, and of observations of those centers, conflict among center participants was studied.

Initial emphases were on issues around which conflict centered and on claims by groups of participants to authority to make decisions. The study was expanded to include the centers' organizational setting and structure, participants' perceptions and attitudes concerning the structure, and their opinions about their joint tasks. The authors note the importance of viewing health centers from a broad perspective rather than taking a crisis-oriented or particularistic view. The questionnaire and data tables are included in volume 2.

Cheekasky, M.: Medical manpower needs in deprived areas. *J Med Educ* 44: 126-131, February 1969.

The neighborhood medical care demonstration project undertaken by Montefiore Hospital in New York City during 1966 and financed by OEO is described. An objective was to develop a medical care program and facilities which would provide comprehensive family-centered medical care of high quality. With the help of a family health worker, the gap between the social institutions serving middle-class America and the radically different, poorly understood, deprived communities was bridged. Medical care appropriate to the needs of society cannot be planned for or delivered without the effective participation of both providers and the recipients of service. Changes in curriculum to exercise the social commitment medical students frequently express are called for.

Colombo, T. J., Sawards, E. W., and Greenlick, M. R.: IV. The integration of an OEO health program into a prepaid comprehensive group practice plan. *Am J Public Health* 59: 641-650, April 1969.

The services of the Kaiser Foundation Medical Care Program were extended to 1,200 indigent families residing in communities being served by the program. Three months after OEO funds were made available, services were being provided to families selected on the basis of priorities set by the medical care advisory board—a committee of representatives from each neighborhood.

Because of the selection priorities, the OEO population tended to be younger than the health plan membership and, therefore, use of services varied between the two groups. The OEO population averaged 3.9 physician encounters per person per year, while the membership averaged 4.1 encounters. Little difference in use resulting from different morbidity patterns is indicated by the fact that nine of the 11 most frequent diagnoses were common to both groups.

Langston, J. H., et al.: Study to evaluate the OEO neighborhood health center programs at selected centers: Final report, vols. 1-3. Geomet, Inc., Rockville, Md., 1972.

This extensive evaluation study of 21 neighborhood health centers included assessment of a wide range of center organizational and functional factors using several methods of data collection. By means of interviews with 9,500 families residing in the centers' target areas, the populations' demographic and socioeconomic characteristics, health status, patterns of medical care use, satisfaction with care provided, and the levels of comprehensiveness and continuity of care were determined. Comprehensiveness and continuity were also assessed by means of patient record reviews.

The extent and nature of such variables as community participation, outreach resources and activities,

accessibility, internal and external coordination of services, maturity of center, personnel resources, scope of services, and management structure and operations were mostly determined by extensive interviews with the centers' administrative and professional staff, as well as with members of community boards.

These data were supplemented, where possible, by information derived from administrative and budgetary records, project proposals, organizational charts, manuals, and consumer board records. The methodology, the results, and the analyses are presented in great detail throughout the three volumes. Volume 3 is devoted entirely to the interview schedules and data collection work sheets.

Madison, D. L.: Organized health care and the poor. *Med Care Rev* 26: 783-804, August 1969.

A discussion of the comprehensiveness of various federally funded health programs for the poor is presented. All such programs, except the maternal and infant care programs, claim to be comprehensive, but each has its own definition of the concept. Federal programs, particularly those under the Office of Economic Opportunity and the Public Health Service, have permitted various organizational models: group practice with closely integrated and extensive outreach, group practice with distinct outreach, group practice with no outreach, organized solo practice with various forms of outreach, mobile medical units as well as the more traditional hospital outpatient clinic, health department clinic, and volunteer clinic.

The author indicates that young professionals provide the best prospects for the future and that their talents and views must be employed and entertained for the delivery of health care to be improved. A 50-item bibliography follows the article.

Morehead, M. A.: Changing roles of personnel in neighborhood health centers. *Postgrad Med* 49: 193-197, April 1971.

Standard medical care has not proved successful with the disadvantaged poor. As a result, new forms of service and care as well as new professional and non-professional roles have evolved.

The family health worker may be a technical assistant, clerical worker, clinic aide, or an in-home worker—whose primary tasks are to bridge the gap between professional and patients, to augment professional staff in their work, to educate the community to the availability of services, and to reach unregistered eligible patients. Greater emphasis is placed on the role of the RN as nurse-practitioner. The social worker is emerging as more of a therapist. The physician plays a significant but not a leadership role in the health team. This team is assisted by dentists, nutritionists, public health nurses, pharmacists, and, in some cases, lawyers, sociologists, anthropologists, and medical students. Major problems faced by these teams in neighborhood health centers are outlined and discussed.

Schaefer, M.: Commentary on the social scientists' views of the neighborhood health center as a new social institution. *Med Care* 8: 116, 117, March-April 1970.

The author indicates that health professionals, by necessity, are involved in politics and in social change when functioning in and about neighborhood health centers. He notes that social scientists have again found an escape from the need to include in their research agenda the organizational behavior of health professionals.

Various problems that the health administrator faces when dealing with sociologists, economists, and political scientists are outlined. The author states that these disciplines must be integrated and that a coherent, unified message must be delivered to the health administrator to insure influence in the future. Health professionals must allow for and facilitate the genera-

tion of power in those parts of the society where there is a potential for power development.

Sparer, G., et al.: Consumer participation in OEO-assisted neighborhood health centers. *Am J Public Health* 60: 1091-1102, June 1970.

The study analyzes some experiences of the Office of Economic Opportunity with consumer involvement in projects concerned with neighborhood health centers. Factors discussed are organization of consumer groups, role of staff, consumer participation, and the need for more information on and understanding of the forces that affect consumer participation. A team of specialists in a variety of disciplines reviewed 27 centers by spending approximately 2 days at each site. The team assessed (a) the degree of consumer involvement in the center, (b) the personality parameters of both the consumer and the provider, and (c) the amount of conflict (internal and external) in the centers.

The organizational status of the consumer groups is presented and the authors state that "committee organization is apparently a key element in group involvement in project operations." The study resulted in a relative ranking of degrees of participation of consumer groups in health centers, but the potential for such involvement was not tapped.

Stoeckle, J. D., and Candib, L. M.: The neighborhood health center. Reform ideas of yesterday and today. *N Engl J Med* 280: 1385-1391, June 19, 1969.

A detailed historical view of the establishment of neighborhood health centers and the health-center movement in rural and urban areas is presented. Attitudes regarding the delivery of health care to people in specific communities have come full circle, with the added goal of alleviating the poor conditions as well as caring for the sick. The center's new program, which seeks the prevention of illness and the rehabilitation of residents, promotes (a) reorientation of medical values, (b) shifting the goal of care from longevity alone to optimal functioning and achievement, and (c) a more social view of health.

The new health centers, whether or not traditionally organized as private group practice, deal with different and more complex health problems requiring social rehabilitation through personal health services. Although new definitions are being applied to the older organizational ideas, contradictions in dealing with modern problems are also being encountered. A 30-item bibliography follows the article.

Wise, H. B., et al.: The family health worker. *Am J Public Health* 58: 1828-1838, October 1968.

The authors describe the establishment of Montefiore's neighborhood medical care demonstration project in New York City and the role of the family health worker who is trained in patient care and social advocacy skills.

The family health worker, the third member of the health team, works with a physician and a public health nurse. The program shows how neighborhood residents, trained for 6 months and supervised by a public health nurse, can perform many of the functions traditionally assigned to public health nurses and social workers. Although her base is the center, she spends most of her time in making home visits in the community. Early impressions are that the family health worker is successful in carrying out her job mandate.

Appendices include demographic information on the health workers, health problems and plans for the family, and the curriculum for the family health worker.

EVALUATION

Anderson, U. M., et al.: High-risk groups. Definitions and identification. *N Engl J Med* 273: 308-313, Aug. 5, 1965.

The authors describe a project carried out in Buffalo, N.Y., which attempted to identify the high-risk area of the city. Available health statistics were used, and the five statistical items selected for identification purposes were infant mortality rates, perinatal death rates, prematurity rates by race, pregnancy complication rates, and birth rates. Comparisons were made between these data and 1960 census data and pregnancy and delivery data for the entire city. These comparisons indicated that the area outlined (by means of the five criteria selected) as containing a high-risk population was indeed different from the rest of the city. The authors indicate that the method used provides a rather "accurate geographic location of the high-risk area of the city."

Collen, M. F.: General requirements for a medical information system (MIS). In *Medical Information systems. National Technical Information Services*, Springfield, Va., 1970, pp. 1-16.

A detailed outline of the objectives of an electronic medical data processing and communications system covering both inpatient and ambulatory services of one or more general medical centers is presented. The functional requirements to meet the needs of patient recordkeeping, administration, research and evaluation, and education are outlined. The medical and data-processing specialists required for such a system are listed and briefly discussed, as are equipment, reliability, control, and utility factors. Capital expenditures, operational costs, and planning time requirements are similarly discussed.

Curran, W. J., Stearns, B., and Kaplan, H.: Legal considerations in the establishment of a health information system in Greater Boston and the State of Massachusetts. Project for the preliminary design of a health information system for Boston. Joint Center for Urban Studies of M.I.T. and Harvard University, Cambridge, Mass., 1968.

The authors discuss extensively the legal and organizational safeguards of privacy and confidentiality necessary to a health information system. State legislative and judicial laws governing the maintenance and release of such information are carefully reviewed and interpreted for the nonlawyer. Examples of documents and agreements used within currently operating record systems are presented.

De Geyndt, W.: Five approaches for assessing the quality of care. *Hosp Adm* 15: 21-42, winter 1970.

The literature dealing with quality of care and its measurement is reviewed. After distinctions are made between "patient care," "medical care," and "health care," the author defines, describes, cites references, and criticizes five approaches to the measurement of quality of care.

The five approaches are (a) assessment of content—concerning whether or not medicine is properly practiced; (b) assessment of process—focusing on the management of the patient's case; (c) assessment of structure—centering on judgments of the adequacy of equipment, facilities, personnel, financial mechanisms, and various organizational variables; (d) assessment of outcome—concerning changes in health status as a result of health care rendered; and (e) assessment of impact—focusing on continuity, completeness, appropriateness, availability, accessibility, and acceptability.

Deniston, O. L., et al.: Evaluation of program effectiveness. *Public Health Rep* 83: 323-336, April 1968.

The four types of evaluation questions discussed are (a) appropriateness, (b) adequacy, (c) effectiveness, and (d) efficiency. The authors' model deals with the assessment of program performance and not the planning of it; therefore, it does not consider the question of appropriateness. The model is intended to determine to

what extent the objectives attained were a result of program activity and at what cost. Measurement of each variable—resources, activities, and objectives—is necessary for application of the model.

Evaluation is most valuable when considered to be a continuous process, and it should do more than demonstrate degree of attainment of program objectives. It should also pinpoint problem areas.

Deniston, O. L., and Rosenstock, I. M.: Evaluating health programs. *Public Health Rep* 85: 835–840, September 1970.

Evaluation of a program involves the assessment of the operation and the accuracy of the planning. Evaluation should include a measurement of the status of the program, as well as an estimate of what the problem or problems would have been had the program not existed.

A formal definition of program is presented, and the authors suggest that evaluators focus on objectives (output, outcomes, or goals) of the program in terms of their appropriateness, adequacy, effectiveness, efficiency, and side effects. The objectives should specify both what and how much is to be attained.

Deniston, O. L., Rosenstock, I. M., Welsh, W., and Getting, V. A.: Evaluation of program efficiency. *Public Health Rep* 83: 603–610, July 1968.

The authors describe and discuss measurements of effectiveness and efficiency as ways in which to evaluate program performance. In order to conduct evaluation studies, conceptually clear definitions about the program and quantification of terms are essential. Questions concerning program effectiveness are generally directed toward assessing the extent to which planned or intended objectives have been attained as a result of the program activity.

The ratio AO to OA (that is, attainment of objectives attributable to program activity to the proposed objectives for attainment through program activity) is proposed as an indicant of program effectiveness. Two subordinate but necessary measures of effectiveness are represented by the ratios AA to PA (that is, actual activities performed to planned activities scheduled) and AR to PR (that is, actual expenditure of resources to planned expenditure). An index of accomplishments, efficiency curves, and limitations of measures of efficiency are explained.

Donabedian, A.: An evaluation of prepaid group practice. *Inquiry* 6: 3–27, September 1969.

An extensive review of prepaid group practices is compiled from previously published papers, from which data enabling comparisons of prepaid groups and other forms of insurance and practice are drawn.

It is generally concluded from these comparisons that prepaid group practice is a more rational organization of services, which can and does control costs, and that it offers greater protection against illness-caused financial problems. Much evidence exists to suggest that the technical quality of care is at least "maintained and safeguarded." Growth of prepaid group practice is hampered by attachments to traditional forms of care and insufficient information about prepaid groups. While the majority is satisfied with groups, maintaining professional spirit and personal patient-physician relationships are problem areas.

Feldstein, M. S.: Economic analysis for health service efficiency. North-Holland Publishing Co., Amsterdam, The Netherlands, 1967.

This is an extensive and detailed description of a framework within which economists can assist health professionals through economic analysis. The four areas covered are identification and estimation of costs, monitoring the care being provided, determination of the output mix that maximizes a specified

preference function, and measurement of the benefits of care.

Measures of hospital costliness, productivity, and input efficiency are developed as indices of performance in the selection and use of resources. The costliness measure would serve as a summary of performance, and the productivity and input measures could identify the cause of high or low costliness. Estimation of a production function is discussed. While one model is adopted, all are limited by little knowledge of the behavioral characteristics of hospital production. Case-flow rates are also discussed in terms of intensity of capacity utilization, marginal and true total costs, cost per case, duration of stay and waiting lists, size of case-flow rate, facility, and professional staff.

Feldstein, P. J.: Research on the demand for health services. *In* *Health services research*, edited by D. Mainland. National Technical Information Service, Springfield, Va., 1967, pp. 128–165.

An economic framework for estimating demand for health care services and for explaining variations in demand and supply of services is presented. The "demand analysis" described is a means of predicting use of medical services and specifying relationships between use and a number of influencing factors. The primary focus is on the ways in which people use health services and "how certain sets of circumstances in a consistent and predictable way, create a likelihood that certain amounts of health services will be consumed."

Gordon, B. L.: Terminology and content of the medical record. *In* *Medical information systems*, edited by M. F. Collen. National Technical Information Service, Springfield, Va., 1970, pp. 53–62.

The author presents a discussion of problems involved in the keeping of medical records. These problems include (a) an excess of labels and descriptions used in medical records resulting in great variation and complexity; (b) the organization of data in the records in such a way that memory serves a physician better than reference to the record; (c) abstracting of the records, which is dependent on the clarity of the data; (d) the customs of professionals and their resistance to change; and (e) the limitations of computer assistance.

Use of a system of abstracting is posed as a means of facilitating the transition from manual recording to computer operation. The Medical Record Form, adapted from Current Medical Information and Terminology, may serve this purpose and, therefore, is described in some detail. It could also serve to simplify and standardize the medical summary, expedite communication, and provide satisfactory computer input. A general warning is given not to overload any computerized information system with irrelevant or unnecessary data, or both.

Greenberg, B. G.: Evaluation of social programs. *In* *Readings in evaluation research*, edited by F. G. Caro. Russell Sage Foundation, New York, N.Y., 1971, pp. 155–184.

Evaluation is discussed as being comprised of five stages: (a) preoperational community diagnosis based on a complete, precise community profile, (b) program design and setting of goals which are time-dependent and broken down into immediate, intermediate, and long range, (c) measurement of services (inputs), (d) evaluation to determine what portions of the goals are attained and how much of the attainment can be accredited to the program (outputs), and (e) cost-benefit analysis based on a model of how the important variables function within the social system involved.

The author states that proper evaluation is achieved through a controlled, experimental, field-study design. Problems with this design are recognized and discussed.

Helper, R. E.: Estimating the quality of patient care in a pediatric emergency room. *J Med Educ* 42: 244-248, March 1967.

The author reports a study conducted in the pediatric emergency room at the University of Colorado Medical Center during the last 2 months of an internship. Chart reviews were conducted to evaluate proficiency and efficiency of the interns' chart notes. A proficiency index (PI) was developed and is calculated by "the number of essential items recorded divided by the total number of essential items times 100." An efficiency index (EI) was also developed and used, and it is calculated by "the number of items considered helpful divided by the total number of items recorded times 100."

After the necessary baseline data were collected, the interns were informed that methods were going to be used to help improve teaching in the emergency room. Professors reviewed a random selection of charts with the interns for a 3-week period, and the charts were once again rated on the PI and EI. Results were discussed with the interns and deficiencies were explained. A third chart review was conducted without the interns' knowledge. Results indicate that "acquainting the interns with what was expected of them was . . . an effective means of improving patient care as measured by [the] criteria."

Hutchison, G. B.: Evaluation of preventive services. Program evaluation in the health fields, edited by H. C. Schulberg, et al. Behavioral Publications, New York, N.Y., 1969, pp. 59-72.

The concept of preventive medicine is defined as a scale along which all aspects of medical practice can be arrayed in terms of the degree of preventiveness. A general model of evaluation is presented. It is based on a goal-attainment model, wherein the goal is favorable alteration of the natural sequence of pathogenic events. Such a model requires that the natural history or progression of disease be known. Beyond etiology and the host's biological reactions, such a history would include the influence of social and physical environmental factors on the pattern of medical practice and the social and intellectual response of the host.

Kelman, H. R., and Elinson, J.: Strategy and tactics of evaluating a large-scale medical care program. *Med Care* 7: 79-85, March-April 1969.

In an attempt to develop a means of assessing the impact on the community of a large-scale medical care program resulting from the affiliation of a community general hospital and a university medical center, various methodological issues and problems were confronted.

The evaluation system that was developed consisted of two types of data. Household surveys were used to obtain information regarding community health levels and on patterns of and needs for care. The emphasis was on changing status and behavior. Hospital information relating to patient care was obtained through a medical audit. The nature and consequences of service were the primary evaluative foci. Outcomes were defined in terms of the patients' health and social functioning, including such variables as clinical course, threat to life, self-care, ambulation, productive activity, and discomfort.

Kisch, A. I., and Kovner, J. W.: The relationship between health status and utilization of outpatient health care services. *Arch Environ Health* 18: 820-833, April 1969.

In a health manpower study conducted at the University of California, Los Angeles, and designed to assess the effects of health status on demand for care, "a proxy measure of health care status was designed and pre-tested." The populations studied were a group of long-shoremen and their dependents who were covered by the San Joaquin Foundation for Medical Care health

plan and a group of Los Angeles Department of Water and Power employees who were enrolled in the Ross-Loos Medical Group.

Interviews, which "included four questions whose cumulative score constitutes a proxy measure of health status," and record reviews were conducted. The methodology of the pretest and the validity of the proxy measure are discussed. Results revealed that the proxy health status score correlated highly with the physician's appraisal of the patient's status after having given a physical examination. The health status was found to be a predictor of nonutilization, but not of the extent of utilization.

Klarman, H. E.: Present status of cost-benefit analysis in the health field. *Am J Public Health* 57: 1948-1953, November 1967.

Cost-benefit analysis aims to measure all the consequences of a program or policy, including "spillover effects." However, it is difficult to measure the intangible aspects of human life, including the value of life and good health. While "costs" are defined as projected expenditures, "benefits" are defined as future losses which will be averted by the success of the program, that is, savings in the use of health resources, gains in economic output, and satisfactions derived from better health.

In relating health to cost-benefit studies, at least four tasks remain to be performed: (a) calculation of both the costs and benefits of specific programs, (b) formulation of the problem in a manner that clearly points to the kinds of data required, (c) enlistment of the efforts of various disciplines in order to develop the methods of measurement and analysis required, and (d) use of good judgment in decision making when major elements of cost-benefit calculations are missing.

Morehead, M. A., Donaldson, R. S., and Seravalli, M. R.: Comparisons between OEO neighborhood health centers and other health care providers of ratings of the quality of health care. *Am J Public Health* 61: 1294-1306, July 1971.

In a study to determine the quality of medical care rendered to adults, infants, and pregnant and recently delivered women at 35 OEO-sponsored neighborhood health centers, "baseline medical audits" were used. The standard against which these health centers and other providers (that is, six maternal and infant care programs, four children and youth programs, five health department well-baby clinics, seven group practice programs, and 20 rural private practitioners) were rated was "the level of care in medical school outpatient departments."

During the study 3,040 medical records were reviewed. The authors present a number of tables to illustrate (a) components of care received by the four groups of patients, (b) audit scores for providers, and (c) distribution of records reviewed, by provider and by specialty. The results indicate that the health centers are indeed providing care comparable to, and in some cases better than, the other providers. The general conclusion is that "the centers appear to be an effective means for the delivery of good quality health services."

O'Donahue, J. D.: Developing a conceptual framework for planning. *Hosp Adm* 14: 35-54, fall 1969.

In developing a health manpower project, the cybernetic model is used to develop a framework. The interactions among segments of the system are studied. That is, each segment must be considered part of a system wherein any change in any segment will affect changes in other segments.

The author discusses ways in which to best decide the number of people needed in a particular health occupation at a particular point in time. That is, complete knowledge and understanding must be gained regarding (a) the population to be served within the system, (b) the sorting and resource allocating func-

tions of the educational segment of the system, (c) the provision, operation, and funding of facilities, and (d) the characteristics of the manpower segment itself.

Peterson, O. L.: Medical care: Its social and organizational aspects. Evaluation of the quality of medical care. *N Engl J Med* 269: 1238-1245, Dec. 5, 1963.

Three major categories of evaluation studies are discussed: end-result studies—often lack necessary control variables and followup information; observational studies—usually subjective in nature; and record reviews—subject to reporting biases and frequently a lack of definition and sample randomization.

In determining the methods to be used for the evaluation of quality of medical care, the feasibility, economy, and importance of the problem must be considered. In evaluating hospital care, the first need is for complete general patient statistics, including demographic and medical data which would facilitate inter-hospital comparisons. The second need for such studies is more variables.

Computer processing could be used for the systematization and definition of the limits of good quality medical care.

Richardson, W. C.: Measuring the urban poor's use of physician services in response to illness episodes. *Med Care* 8: 132-142, March-April 1970.

By means of household interviews in three OEO health center target areas, responses to illness episodes were studied in relation to (a) income, (b) third-party coverage, and (c) severity of episode. Illness episodes were defined as involving withdrawal from usual activity. Severity of episode was determined by (a) respondent's perceptions of disability, (b) physician-rated seriousness derived from respondent descriptions, and (c) duration of associated disability.

The study yielded the following findings: Level of income was associated with response to episodes for nonserious illnesses, but differences were small for serious conditions regardless of third-party coverage. Third-party coverage reduced the relationship between response and income in one area and reversed the relationship in the other two areas. Revisits were directly related to income regardless of third-party coverage.

Schwartz, J. L.: One thousand and nine poor families: Sociodemographic profile of enrollees in a rural health project. Research Report No. 1. Rural Health Project, King City, Calif., March 1970.

This is the first in a series of reports describing and analyzing first-year experiences of the Rural Health Project of King City, Calif., an OEO health center operated by a private group practice. The report presents detailed data on (a) enrollees' sociodemographic characteristics, (b) their economic and health status, (c) the geographic area served by the project, (d) the incidence and prevalence of illness, and (e) medical care utilization practices of the population. Analyses and data descriptions are also presented.

A social profile of 1,009 poor families—three-fourths of whom are of Mexican ancestry—is presented, and the author indicates that the project was intended to expose a medically indigent population to the "idea of good health being a normal and (an) expected condition of life."

Simons, G. R.: Technology scanning: An evaluation procedure. *Socio-Economic Planning Science*. 5: 377-385, August 1971.

Technology scanning emphasizes stated goals and is based on assessing the contributions of each program element toward achieving particular goals. The procedure is systematized by means of a grid on which the goals (or problems) are arrayed along the horizontal axis and the activities (solutions) are plotted along the vertical axis. Various groups involved in or affected by a particular program weight the importance

of each goal and estimate the contribution of each activity toward achieving each goal. Evaluation is based on a comparison between these estimated levels of contributions and the actual contribution determined in retrospect. Actual contribution is based on determining the scope of activities of various agencies or program elements involved after 6 to 12 months of operation.

Sparer, G., and Johnson, J.: Evaluation of OEO neighborhood health centers. *Am J Public Health* 61: 931-942, May 1971.

A summary of the evaluation studies and findings among health centers is presented. Through these studies, various concepts have been operationalized.

Comprehensiveness was assessed by the existence of major medical specialists under one roof or the grouping of basic primary physicians (internists or general practitioners, pediatrician, and obstetrician) in one location. These physicians were available at least 40 hours per week, with access to other specialists.

Quality was gauged in terms of the scoring system developed by M. A. Morehead. Continuity was measured by the extent of formal relationships between centers and support facilities; that is, the highest rating went to centers staffed with physicians who were responsible for in-hospital care. A second dimension of continuity was assessed by means of the degree to which patients saw the same physician.

Training and manpower use were assessed in terms of hiring community residents, training them for new health careers (including adequacy of care curriculums and on-the-job training), and the use of employees in innovative ways. Costs were dealt with in terms of average unit and per capita costs compared with other centers and other providers.

Suchman, E. A.: Evaluation research: Principles and practice in public service and social action programs. Russell Sage Foundation, New York, N.Y., 1967.

This book is divided into three main parts representing the conceptual, methodological, and administrative aspects of evaluation. The proposed five categories of criteria for evaluating the success or failure of a program are effort, performance, adequacy of performance, efficiency, and process.

It is felt that practical indices of accomplishment are lacking. Also, evaluative research should test effects of variables rather than program effects, since program testing has no generalizability; that is, it is applicable only to the program being investigated. Evaluation should be scientific and built in as an ongoing component of any service program.

Suchman, E. A.: Sociomedical variations among ethnic groups. *Am J Sociol* 70: 319-331, November 1964.

In an effort to determine ethnic variations in health-related knowledge, attitudes, and behavior, a cross section of adults (21 years old or older) living in the Washington Heights area of New York City was interviewed between November 1960 and April 30, 1961. The research design, sampling procedures, formation of ethnic groupings, determination of degree of social organization among the populations, comparison of sociomedical responses, and findings are presented and discussed.

Among the findings are that "Puerto Ricans show the greatest deviation from . . . 'desirable' sociomedical knowledge, attitudes and responses to illness." The Protestants and the Jewish members of the sample, on the other hand, tend to be more in accord with "objectives and methods of modern medicine and public health." The author concludes that, in general, form of social organization is found to be more important than ethnicity or social class in relation to sociomedical responses.