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A METHOD OF ASSESSING THE POTENTIAL OF COMMUNITY HEALTH RESOURCES

FOR PROVIDING A SPECIFIC COMMUNITY HEALTH SERVICE

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CHAPTER I

INTRODUCTION

Objectives

The community study committee is a functional part of the American democratic process. Across the United States thousands of committees have been organized for the purpose of identifying and solving community problems. The success of the community study committee is often related to the committee's ability to identify and to utilize community resources. The complexities of modern society have made it increasingly difficult for members of the community study committee to assess the actual and potential resources available to meet the requirements of specific community programs. With the constant demand by the American citizen for more services and with the limited funds available to provide these services, it is of paramount importance that all community resources be utilized to their full potential in order to effect economy of the expenditure of human and material resources.

The planners of community health programs are particularly pressed with the need for a method of assessing community health resources

that will be meaningful to the members of the community committees through which one must work to bring about effective community action. The primary objective of this study was to develop and test an orderly system of assessing community health resources and needs which can be used by public health officials and community health committees in the assessment of resources and needs for specific community health programs.

The secondary objective of the study was to learn the resource potential of communities for carrying out a community heart control program.

Background

Responsibility for community health rests jointly on the local health department, the medical, dental, and allied professions, the hospitals, departments of education, the voluntary health agency, and the public generally.

It is essential, therefore, that the local health officials define the optimal responsibilities of the local health department, to list the general types of service provided, and to indicate the specific methods utilized in the solution of local public health problems.

The local health officer has the opportunity to make a unique contribution through his utilization of epidemiological knowledge in the development of the programs for the maintenance of health and control of disease. He has, morever, an over-all responsibility to the public in matters affecting community health. He meets this responsibility by rendering certain direct services and by providing stimulation and leadership to assure that other necessary services and facilities are

made available by appropriate means. In order to achieve an effective program, the local health department should provide a standard for community health services. Members of the community, having employed professional people in the local health department, look to the members of the health department for leadership in the establishment of health programs. In the absence of organized local health services, the community must provide leadership, usually on a volunteer basis, until such time as an agency is designated or organized to give the continuing leadership required for meeting community health needs. Whether leadership comes from an official agency or from a temporary volunteer group, the image of public health, i.e., community health, in its broadest sense or as it regards any one particular phase, is of significance in the programs developed.

An important role for organized health service in the community is to provide an image for community health services. The image should first establish the broad scope of community health services and, secondly, show how organized health department activities integrate with community health services provided by other agencies or groups in the community.

The image of public health held by the public is often narrow and poorly conceived. A series of interviews was arranged by the writer to gain some insight into the nature of the image of public health held by selected persons within the community. Selected for the interviews were two housewives, a merchant, a state senator and two physicians.

The first housewife interviewed had been reared on a farm and

equated public health with the inspection of milk. Further questions did stimulate recall to the extent that she remembered nurses giving "shots" at school. The second housewife responded to the question with a description of public health as a medical care program for the poor. The merchant, a grocer, responded to the question with a reference to increased tax levies.

The state senator's reply to the question was a brief and pointed, "I haven't the slightest idea." The senator indicated only a vague idea about the function of organized health services.

The two physicians interviewed were direct in their reply to the first question, but, in general, left the impression that a public health department consisted of a communicable disease control program.

While this series of interviews was not in any way, nor was it intended to be, a validated opinion survey, it did establish for the writer some specific responses to the question, "What is public health?"

The image of public health reflected by the six persons interviewed gave the picture of public health as it was twenty to thirty years ago when public health was immunization and sanitation.

Additional interviews were arranged with employees of a local health department. The same question was asked, "What is public health?" Interestingly enough, the image being projected by these employees was the same as that reflected by the small sample of the public interviewed.

A second important role of the organized health service in the community is to provide health information for the members of the community. Where do people get health information? When we look at some of the ways in which people spend their health dollar, we might assume

that they get the majority of their health information from the advertisements on television and radio. The provision of health information to the people is an important leadership role of organized community health services. The health information should not be limited to the facts of personal hygiene, but should illustrate the need for adequate community health facilities.

The third important leadership role that should be taken by the official health agency is that of initiating community health action. The technique or method that the health officer or a member of his staff might use in initiating community health action may be overt or it may be covert. It may express itself through the press or it may express itself quietly through conversations with community leaders. Regardless of the technique employed, the need for informed leadership is always present.

The health officer may assume his leadership role in many different ways, but one of the most common techniques employed is the use of the survey of community health needs. This may be a professional survey in which members of the health department and other consultants are used to collect data concerning the community health needs or it may be the self-survey which is carried out by members of the community.

Types of Surveys

The community self-survey technique has enjoyed a great deal of popularity in the United States in the past few years and the outstanding example of this type of community health study has been prepared by the American Public Health Association and is called "Guide to a Community

Health Study (1)." This guide is intended to be used by community groups with the assistance of professional public health personnel. Such groups as health councils, parent-teacher associations, service clubs, farm bureaus, tuberculosis associations, cancer societies, heart associations and other voluntary health organizations will find it a convenient method to inventory community health needs and resources.

The guide prepared by the American Public Health Association has been divided into seven basic sections which cover (1) degree of general community concern; (2) degree of special group concern; (3) extent of existing services; (4) is the problem solvable?; (5) need for special educational measures; (6) needed additional facilities, services and policies; and (7) the health department. The "Guide to a Community Health Study is an excellent document prepared with great care and authority. The "Guide to a Community Health Study" is a considerable improvement over the "Evaluation Schedule" issued by the American Public Health Association in 1957, but it still has a number of limitations when used with community study groups.

Volunteer community workers have a limited amount of time that they may spend in the collection of information concerning their community's health needs and resources. Instructions that give the assignment of preparing maps showing the location, governmental jurisdiction, urban and rural areas, population densities, etc., are extremely difficult for the ordinary volunteer worker to accomplish, usually requiring the time and skill of the full-time, paid person. The answers to the questions in the first part of the guide should be readily available in any county with a county health department. A check on the county health

departments in Oklahoma shows that many of the important information facts concerning population, characteristics of population, population distribution, age distribution, and seasonal variations in population are not available and would have to be collected by members of the committee.

With a local health department in Oklahoma in mind, one of the questions found in the guide becomes rather naive. This question is: "What customs, traditions, cultural and social patterns influence behavior toward health problems?" While the importance of the question cannot be doubted, it falls outside the ability of most of our communities to provide any but the most general answer to this question. There is little doubt that the extensive and comprehensive survey of the community as outlined by the American Public Health Association guide is highly desirable and should be accomplished. It is, on the other hand, a document prepared by professional public health people for use by other highly trained professional public health people.

Another type of survey employed to bring forth more knowledge about community health programs is illustrated by the health study done in Kit Carson County, Colorado, by the U. S. Public Health Service (2). The objectives of this particular study were three-fold: (1) to assess methods of collecting health data, especially the household morbidity survey; (2) to acquire experience in research combining the skills of public health and social sciences; and (3) to provide the descriptive data about the health situation and practices in a single county which appear typical in many respects of the majority of the Great Plains counties. The study was carried out by a team of public health

scientists and social scientists. It is reported in the study that the objective was to learn about methods and about the community, but not to seek any changes. The following types of data were obtained to characterize the county's health status and health services viewed objectively:

Mortality and morbidity.

Duration and severity of illness prevalent at a given time.

Extent of disability.

Economic consequence of sickness and disability.

Environmental conditions related to health.

Use of selected preventive personal health practices.

Health facilities and manpower available.

Volume and type of health services used.

Medical-legal services, facilities, practices and laws to protect the public.

Professional assessment of health situation by local physicians and other health personnel.

The household survey was developed to obtain certain of these data from a fifty per cent sample of families in the county. Specifically, the major purposes of the household survey schedule were: (1) to obtain an approximate measure of the prevalence of illness in the population of Kit Carson County at that time; (2) to determine the prevalence of specific diseases and complaints in the population according to age, sex, marital status, relationship to family head, family income and other demographic, social and cultural characteristics; (3) to ascertain care sought from recognized professional groups and facilities inside and outside the county; (4) to assess any capacity for work and pursuit of other usual activities associated with specific diseases and the

timeliness of medical care sought; (5) to determine the extent to which specific prevention practices were followed; and, finally, (6) to ascertain certain environmental factors believed to be associated with health and to link these to reported prevalence of specific illnesses and complaints.

Additional data were collected to determine subjectively the needs of the people in Kit Carson County. A third assessment was made on cultural data concerning the ecology, man-land relationships, pathways to getting help with personal problems, medical folk beliefs and practices, the health and medical system, community health actions in leading current health problems. This part of the study done on the cultural aspects of health and the collection of cultural data was done by a team of social scientists, each gathering data about the community according to a common set of categories, but each also concentrating on one phase of community life. Methods employed consisted of depth interviewing of key informants and participant observation.

The need for more studies such as the Kit Carson study is evident, especially in the area of the Great Plains. This type of study, however, is of little value to the community study committee wishing to attack a specific problem, since it requires a number of highly skilled scientists to accomplish the study.

A third type of survey is represented by the approach used in the U. S. Public Health Service Standard Milk Ordinance (3). This instrument defines conditions which must exist in order to produce high quality milk. The survey is restricted to the subject of quality milk production and serves as a standard for a grading of milk producers and

processors. The survey schedule which is a part of the ordinance is in the form of a check sheet. Requirements are stated in the schedule and a space made available to check whether or not the requirement is met. Each item on the schedule is given a point value so that if the schedule is completed satisfactorily the milk producer or processor being surveyed can make a score of 100 per cent.

This type of survey has a particular advantage in that it is directed toward a specific public health concern. The practice of assigning points to each item makes it possible to arrive at a score for the survey. The scoring provides a mechanism for comparison from one survey period to the next and a comparison between different milk producers.

One of the most successful programs in public health has resulted from the use of this simple method of measuring and evaluating resources for the control of fluid milk. On reading the Standard Milk Ordinance and Code suggested by the U. S. Public Health Service, one gets the impression that this is a highly objective surveying instrument, when in reality it is, after many years of use and revision, an extremely subjective tool representing a series of compromises on definitions and requirements.

The important difference between the instrument used for the inspection of milk producing facilities and the survey forms and guides used to do community health studies is that the survey form for the control of fluid milk makes very definite statements setting up requirements for the quality production of milk. The community health guides that have been developed do not take this final step by saying that, in order

to have a sound community health program, certain essential programs must be in evidence in the community.

Criteria for a Community Heart Disease Control Program

"What are the requirements for the control of heart disease in the community?" In order to assess potential resources for a community heart disease control program it is necessary to arrive at certain criteria or standards in terms of resources, facilities, and programs available or potentially available to the community that can be used to bring about an effective control program. It is important that the criteria for a community heart control program be based on principles generally accepted by the authorities in the field of heart disease control.

The phrase, heart disease control program, can elicit some disagreement. The physician in private practice, as a rule, interprets the phrase, heart disease control program, as management of the individual patient with heart disease. In public health the phrase, community heart disease control program, is used and implies an epidemiological approach to the problem of heart disease, with attention given to the social and economic problems associated with the disease. It is in the latter sense that the phrase "community heart disease control" is used in this study.

A search of recent literature and textbooks (4,5,6,7,8,9) on chronic diseases showed a high level of agreement on the kind of resources and programs required for effective community heart disease control programs. Martin Cherkasky (10) in his article, "Patient Services in Chronic Diseases," asks the question, "What are the facilities a

community needs to care for the chronically sick?" He answers his question with these five items:

> 1. A good general hospital with a broadened philosophy, providing not only doctors' care and nursing service but the services of social workers, and facilities for recreation, rehabilitation, and occupational therapy. In this hospital patients are not classified as acute or chronic but are cared for as their needs match the hospital's resources.
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> . . . . . .
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> 2. A home care program for those patients who still require medical, nursing, and related care but who no longer require the specialized resources of the hospital. . . . The emphasis and major cost of this program center around housekeeping and homemaking services rather than doctors and medical care.
>
> 3. The nursing home, preferably on the grounds of the hospital and certainly under the hospital's auspices for medical care and medical care supervision. . . .
>
> 4. A custodial institution for people who no longer belong in a hospital and yet cannot be cared for at home because of disabilities, handicaps, or social situations. . . .
>
> 5. An adequate outpatient department for those people who are sick but who can travel from their homes to the hospital. This activity . . . will not only treat the immediate medical problems of these people but will also tend to keep them out of institutional facilities.

Ollie A. Randall (11) in his paper, "Health Related Services," points out that counseling and group work, employment and retirement, housing, and community organization are vital parts of health related services. He goes on to point out that the education of the public, especially through adult education, is an important aspect of community health services.

Joseph Fazekas (12) in his paper, "The Total Patient-care Approach to Chronic Disease," adds that social and economic factors are involved in the problem of chronic disease control, as well as emphasizing the basic requirements for any control program in chronic disease. He states that an adequate community program must be built on a total patient-care basis and must include preventive, medical and rehabilitative

aspects. Such a program would comprise the following activities: (1) early case finding, probably including multiphasic screening; (2) medical care after diagnosis, which provides uninterrupted medical supervision of the patient; (3) physical and occupational therapy; (4) vocational training; (5) complete laboratory services; (6) research; (7) a home care program; and (8) terminal medical care. The success of such a community program, according to Fazekas, depends upon the coordinated efforts of medical societies and community health officials.

Morton L. Levin (13) in his article, "National Planning for Chronic Disease Control," lists the following principal needs for the attack on chronic disease:

> (1) in each state and large community, a single planning agency representing all agencies and groups concerned with chronic disease; (2) a campaign of community education in the program; (3) a presentation of chronic disease prevention as part of a general program to foster good health; (4) construction of chronic disease facilities in conjunction with general hospitals; (5) planning of home care programs as a means of keeping patients out of the hospital; (6) concentration by local planning groups on immediate needs; (7) long-term research and planning.

Edward M. Cohart (14) in his article, "The Preventive Aspects of Chronic Disease," places emphasis on the need for effective planning. He states that in addition to adequate facilities for medical and surgical care, prevention of chronic disease and its results in a community requires the development of rehabilitation services, including occupational training and job placement; the provision of facilities for convalescent care; and the provision of housekeeping and home nursing services. He further states that a community program for chronic disease prevention should include the following parts: definition of the problem; public health education; professional education; provision of

adequate diagnostic, treatment, rehabilitation, and ancillary facilities; and social service.

John Hanlon (15) in his book, Principles of Public Health Administration, draws together a concensus on the requirements and needs for a community chronic disease control program. Heart disease, being a chronic disease, generally fits into the pattern established by his outline of a control program for chronic disease:

> A complete program for chronic diseases should probably consist of seven parts: (1) research, (2) early diagnosis, (3) hospitalization and treatment, (4) follow-up, (5) rehabilitation, (6) education, (7) custodial care.
>
> Research. At the present time, continued and expanding research is still a fundamental necessity. In addition to the obvious need for the study of the causes, diagnosis, and treatment of chronic diseases, research activities should include statistical studies of prevalence, incidence and mortality in the various component groups of the population, and administrative studies for the development of satisfactory and efficient methods of implementing a community program.
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> Early Diagnosis. Early diagnosis is a primary step in controlling any chronic disease, whether or not it is communicable. For some diseases, diagnosis is relatively simple and inexpensive, whereas for many others it produces an economic burden of considerable magnitude. Several approaches are possible in order to overcome this aspect of the problem. Private physicians and hospitals may be called upon to render an increased amount of free or reduced-fee medical care. This, however, would be impractical and unfair to the profession and institutions, as well as undesirable for the public. One compromise that has been arrived at and which has met with reasonable success is the plan of providing periodic examinations of limited scope in the offices of private physicians with the patient paying the fee customarily charged for general examinations. Medically indigent patients may be examined free or an agreement may be reached whereby the physician is paid out of public funds.
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> . . . . . .
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> Another approach has been specialized cancer detection centers. Generally, these have not been economical and efficient, and if the idea were extended to the establishment of similar special facilities for other chronic diseases, the cost would be prohibitive and the program inefficient. The approach therefore should be more general and should be concerned with broad aspects of the chronic disease diagnostic problem. Multiphasic screening programs have been developed as one attempt to meet the need. In these, a variety of

tests may be performed quickly and efficiently for large numbers of people.

Hospitalization and Treatment. The majority of patients who are diagnosed as having a chronic disease are hospitalized for at least a period of several days or weeks in order for a complete decision as to diagnosis, therapy, and prognosis to be made. In addition, many hospital beds are needed for long-term care so that certain patients may receive the surgical, medical, and nursing treatment necessary to return them eventually to normal or near-normal existence. Here again appear the problems of availability of sufficient hospital beds and the ability to pay for them. . . . . .

. . . . . .

Follow-up. The active follow-up of posthospitalized patients is a most important and expanding part of the chronic disease program. Often, the chronically ill and aged patient is happier and mentally better off in his own home with familiar surroundings and proximity to those he loves. It has been estimated that about 70 per cent of such patients could be cared for satisfactorily in their own homes if adequate auxiliary services, such as visiting nurse and housekeeper services, were available, and if the other members of the family were given some training. It is here that the public health nurse can make a significant contribution to the program for the care of the chronically ill and aged. The need has already been made evident by the public in terms of demands for this type of service. This constitutes a strong argument in favor of the more widespread and more effective joining of the forces of the official public health nursing services and the bedside nursing programs of the visiting nursing societies.

. . . . . .

Rehabilitation. A program of rehabilitation for chronically ill and disabled patients should be carried on concurrently with the other activities. The need for this is indicated from two points of view. The most obvious is assistance to enable patients to become partially self-supporting, or at least to take care of their own personal needs and to be less of a burden to their relatives and friends. Many patients may be returned to their previous occupations, although often on a reduced work-time schedule. Others may be guided into new endeavors more suitable to their present capabilities. . . .

Too frequently overlooked is the need for rehabilitation in the mental hygienic sense. . . . The tremendous need for activity in this area represents as yet a vast virgin territory and provides an area of great potential service by public health nurses, as well as medical and social service advisors.

Education. Great is the need for public education with regard to the chronic illnesses of later life. On first consideration, it appears incomprehensible that large numbers of the population of the United States at this point in its apparently advanced civilization are so utterly lacking in knowledge and have so many misconceptions and superstitions regarding chronic ailments. However, when the fundamental forces which motivate human thought and behavior are considered, the result is not so surprising. Up to the present, this

challenge has been met almost single-handedly by the various voluntary agencies, and as a result it is they who deserve the major credit for the contemporary interest and progress that is taking place in this field. In the final analysis, it may well be that increased public education in these matters would represent the single most important service that may be rendered by public health agencies.

Custodial Care. The final phase of any program designed to serve those who suffer from chronic diseases is the provision of custodial care. The extent of the need for this type of care is the best measure of the degree of defeat or failure of the total program. A certain number of patients require custodial care of long duration because of . . . progressive incurability of their illness. What is needed here is not so much medical and hospital treatment as mothering and the alleviation of pain and discomfort during the interval of life which remains. At the present time, relatively few facilities for this type of care are maintained at public expense. Dependence must be placed also upon facilities established and operated by religious and fraternal organizations. In addition, there are a large number of privately owned nursing homes throughout the country--some excellent, and some abominable. The adequate supervision of these institutions certainly is a justifiable public health function.

While all of the answers in the control of chronic disease have not been found, nor is there total agreement as to how chronic disease control programs should be organized in the community, Theodore Bauer (16) makes a statement that seems appropriate at this stage of our development:

A tremendous long-range research program has also been organized in this country, aimed at unmasking such secrets as the causes of cardiovascular diseases, cancer, and mental illness.

No one over forty is free from some degree of disability caused by either an inherited weak link in the chain of organ systems or by the ravages of premature but otherwise to-be-expected, physiological decline. . . .

This concept or approach to the problem of chronic illness frees us from the stultifying inhibitions unwittingly imposed upon us by perfectionists. Many types of cancer and heart disease are admittedly still incurable, but this should not slow down our efforts aimed at early detection of such diseases. We can help many by such work; we can help no one by refusing to undertake such work. Our duty is clear.

. . . We can move ahead now against that complex of chronic diseases loosely lumped under the heading "aging." We can apply now what we know about secondary prevention and rehabilitation, at the same time the scientists are pursuing their research into the fundamental nature of chronic diseases.

The Need and Criteria for a Method of Assessment

There is a need for a simplified system for the assessment of community health resources. The available time of professional and volunteer community health planners is limited. Any system of collecting information about the community health resources that does not recognize the limited time factor for the volunteer participants in the community health studies, as well as the limited time available by professional public health staff, from the local and the state public health organization, greatly reduces the chances for completing the assessment. Regardless of the excellence of a particular method of identifying community health resources, some systems are not usable because they offer so complex a process of study that the community study committee and often the local health department find the method beyond their ability to perform, in skill and time.

There is also a need for an assessment technique that emphasizes available community health resources, as well as identifies major gaps in community health services. The choice of the word "available" to the community is made purposely here in that in many situations there are health services located outside the physical boundaries of the community which are available to members of a community. These resources should be considered as resources to the community.

Of particular importance is the need to identify services which are not presently available but which could be made available by using existing resources if these resources were properly organized. It can be quite important to the community committee working toward better

health services in the community if members see that new services may be offered to the community merely by reorganizing some of the existing resources and would not require that special funds be made available or that taxes be increased. The utilization of existing resources through reorganization makes major gains in meeting community health needs without an over-expenditure of time and energy. This type of advancement by the community health committee may be an extremely important motivating factor in leading them toward the final goal of making services available to the community that the assessment schedule identifies in the community as needs that are not available.

The first two needs for a new method of assessment discussed were primarily pertinent to those communities without local health services or with minimum local health services. There is another need for an instrument for assessing community health resources that is equally important to those communities with official public health departments. The simplified method of assessing community health resources will be of aid to the public health official in making a continuing inventory of community health resources and needs. Such an inventory is needed for program planning with the staff of the health agency, with local boards of health, and with voluntary health agencies. The information so collected may also be used effectively for public information. A simplified method of assessing community health resources will establish a base line necessary to carry out an evaluation of program development activities in the community. The continued use of the assessment schedule on a periodic basis will provide the local health department with an overview of the community's progress toward health goals.

The method of assessment should meet the following criteria in terms of time:

1. The time required for instruction in the use of the assessment guide should be limited to one two-hour session.

2. One week should be the maximum time required for the collection of the data.

3. A two-hour session should provide ample time for the final report of the survey.

While this may seem to be an undue limitation on the time factor, it must be remembered that for the community study committee this activity is quite often an introduction to community health programs and that in the process one must take extreme care to prevent placing an overwhelming load on people who are, at the beginning, unprepared to assume the load.

The simplified system for assessment of community health resources should be based on generally accepted principles of public health practice. Care should be exercised to keep any major controversial subjects out of the assessment schedule. The unnecessary introduction of controversial subjects into an elementary community assessment schedule may cloud many of the issues rather than helping the community planners reach their primary goal of gaining basic information regarding their community resources.

The system for assessing community health resources should be designed for use by persons without formal training in public health. The number of qualified public health persons capable of working directly with communities wanting to do an assessment of their health resources

is extremely limited. Systems of assessment that require continued services of a qualified public health person will make it impossible for a large number of communities to avail themselves of this very valuable technique of gaining information essential to the planning of effective community health programs.

If the system is designed for use by persons without formal training in public health, it is obvious that it must be arranged to provide a learning experience for members of the community health committee. The members of community health committees readily admit the need for more knowledge in the area of community health and look to qualified persons to provide personal guidance in a project of community assessment or, if this is not possible, to provide an instrument for checking the community resources and needs.

After the successful completion of a community assessment schedule, meeting the foregoing criteria, one might well expect that the members of the study committee will invest many hours in follow-up work to attain the goals that they have set for themselves through the use of the community assessment guide.

CHAPTER II

METHOD

Preparation of the Guide for Assessing Community Resources and Needs

The first step in the study was the preparation of an instrument that could be used in the assessment of community resources and needs for a community heart disease control program. The assessment schedule, prepared in booklet form, was given the title "A Guide to Measuring and Evaluating Community Resources" and shall be referred to as the "Guide" in this paper. The Guide was prepared in three parts. Part One of the Guide is a check list which is designed to give the definition of a community heart disease control program in a series of questions. Part Two of the Guide is an item by item discussion of the questions on the check list with directions to possible sources of information needed to answer the questions on the check list. Part Three of the Guide is organized to follow the format of the check list in Part One and is designed to provide a systematic method of recording any notes the person making the assessment may wish to make concerning a question on the check list.

The Check List

The check list, Part One of the Guide, was prepared from a single reference in order to maintain a uniformity in the approach to

the subject matter. The reference selected was the third edition of Hanlon's Principles of Public Health Administration in which he itemizes the requirements for a community chronic disease control program. The check list was divided into thirteen major items based on Hanlon's suggestions for a community chronic disease control program.

Item I on the check list is concerned with the maintenance of current information files on community organizations: civic, social, professional and governmental. Item II questions the availability of demographic data in one central location. The type of information in Items I and II is of importance in the planning of any program and if not kept current in an easily accessible place, may prove a serious block to community health planning.

Items III and IV deal with the programs and services which may be described as preventive health services or the classic services of a local health department. These are generally considered to be: (1) vital statistics, (2) environmental sanitation, (3) communicable disease control, (4) laboratory services, (5) maternal and child health, and (6) health education. These two items assess the operation of the local health department. In communities without the services of a local health department these items would emphasize the need for a local health department.

Item V deals with the activity of the voluntary health organization concerned with heart disease. The questions in this item deal with the voluntary agencies' activities in demonstrations, education and service.

Item VI in the Guide inquires into the local health research

activities. While there is still some debate on the practicality of research in any but the large metropolitan health departments, there is growing agreement that certain types of research, valuable to community health progress, can only be carried out by local health personnel (17).

Item VII raises questions associated with resources for the early diagnosis of heart disease. This section on the check list is concerned with the availability of examination facilities, public and private; school health services; industrial health programs; and leadership in the encouragement of early diagnosis.

Item VIII deals with resources for hospitalization and treatment. This item questions the availability and sufficiency of hospital facilities, medical care personnel, and the financing of medical care.

Item IX is concerned with follow-up services in the community in terms of visiting nurse services and homemaker services.

Item X is concerned with facilities for providing custodial care in the community. Questions are raised regarding staff and programs in these facilities.

Item XI deals with the availability of rehabilitation services for all age groups in the community. The questions raised in this item are concerned with the types of professional personnel available and where they provide their services.

Item XII questions the availability of programs in health career development, continuing education for professional health personnel and library facilities.

Item XIII deals with public education in health. The item inquires into organized efforts of professional health groups to provide

speakers, the availability of mass media communications and the extent of health teaching in the schools.

Each major item on the check list was divided into a series of sub-questions on the basis that a general question which will elicit a general answer can be sub-divided into several specific questions which may be answered "yes" or "no." The goal in selecting the questions within each major item was to use those questions which could be answered objectively.

The method used in preparing the questions on the check list was to select a statement from Hanlon's Principles of Public Health Administration which described a requirement for a community heart disease control program. The statement was then rewritten as a question. For example, the statement that a health department should provide the following services: (1) vital statistics, (2) environmental services, (3) maternal and child health services, can be rephrased as follows:

> Does the local health department provide the following services?
>
> 1. Recording of vital statistics.
> 2. Environmental health services.
> 3. Maternal and child health services.

This question can be made even more specific by further sub-dividing the questions in the following manner:

> Does the local health department provide the following services?
>
> 1. Recording of vital statistics.
>   a) Births.
>   b) Deaths.
>   c) Marriages.
>   d) Divorces.

The detail of the sub-division of questions is dependent upon the level of information necessary for any given assessment of community resources

and needs.

Important to the use of the Guide is the arrangement of the questions on the check list and the method of answering the questions. The questions are arranged so that to the right of each question on the check list there are three columns---Column A, Column B, and Column C.

For each question on the check list there are three options for an answer: (1) if the answer to the question on the check list is "yes," indicating that the resource is currently available to the community, even on a limited basis, the check mark should be placed in Column A opposite the question; (2) if the answer to the question on the check list should be answered with a qualified "no," meaning that while the resource is not presently available to the community it could be made available without any additional staff for existing resources, without creating any new organizations, or without making any capital outlay of funds to provide new facilities, the answer should be indicated by making a check in Column B; (3) if the answer to the question on the check list is an unqualified "no," indicating that the resource does not exist and that there would have to be additional staff for existing resources, a new organization created, or expenditure of funds to provide new facilities, the answer would be indicated by marking a check in Column C.

The second step in the development of the check list was to test the questions selected for the check list with a typical community study group. A pre-existing community study group interested in health volunteered to assist in the testing of the questions. The committee was made up of persons representing a cross section of leadership in the community and was generally knowledgeable about the community.

A series of conferences was scheduled with the study group over a period of four months. During these conferences the writer would present the subject matter of a major section of the check list to the group. Following a discussion of the subject, specific questions from the check list were asked of the study group members. Some of the questions were accepted as presented; others were rephrased by the group in terms that were more meaningful to the group.

The draft of the check list prepared with the study group was submitted to an ad hoc advisory committee of professional persons selected by the writer. The advisory committee was asked to check the questions on the list for any technical errors related to heart disease.

Scoring the Check List

When the questions to be used on the check list were put in their final form and order, the next step in the development of the check list was the assignment of a point value to each question on the check list.

One thousand points was selected as the total possible score on the check list. The writer assigned each of the thirteen major items on the check list a percentage of the one thousand points, based on the writer's opinion of the relative value of each item in the development of a community heart disease control program. The opinion of the writer was influenced in the assignment of points by the emphasis given each item by Hanlon and the emphasis given each item by the community study committee during the preparation of the check list.

Once the points were assigned to each major item, the next step was to assign each sub-question within the major item a point value.

The assignment of points to each question was based on the writer's opinion of the relative value of each question within the major item. After points were assigned to each question, the check list was submitted to the advisory committee for confirmation of the points assigned to each question.

The assignment of a point value to each question makes it possible to arrive at a community health resources (CHR) score.

The community health resources score is calculated by first adding the points accumulated in each of the columns on the check list. The total points in column "A" represents the actual resources available to the community. The total points in column "B" represents the potential resources available to the community if existing programs were reorganized or if a demand for services which could be provided by these resources existed in the community. The total points in column "C" represents the resources needed by the community to meet the requirements for a community heart disease control program.

The community health resources score is reached by adding the points in column "A" (actual resources) to the points in column "B" (potential resources). The sum of "A" and "B" represents the total resources available to the community for a community heart disease control program. In the following illustration this score would show that the community is doing 62.5 per cent of the procedures needed for a basic rehabilitation program. It shows that potential resources are available to do 93.7 per cent of the basic procedures. This shows a difference of 25 points between what the community is doing and what it could do if all available resources are used. If this gap between "actual" resources and

"potential" resources can be closed, primarily through education, the difficulty in adding new resources is greatly reduced.

	A	B	C	Points
XI. Rehabilitation				
1. Is there an organization in the community responsible for a program of rehabilitation that includes non-vocational rehabilitation in the community as well as vocational rehabilitation?	( )	(x)	( )	20
2. Are the services of physical and occupational therapists available to:				
a) Institutional patients	(x)	( )	( )	5
b) Homecare patients	( )	(x)	( )	5
c) Out patients	( )	( )	(x)	5
3. Are the services of a work evaluation clinic available within a reasonable distance?	(x)	( )	( )	5
4. Does the community have a sheltered workshop program?	(x)	( )	( )	10
5. Is there an agency that provides employment services to the community as:				
a) Job listings	(x)	( )	( )	10
b) Job placement	(x)	( )	( )	10
c) Counseling	(x)	( )	( )	10
	50	25	5	

Fig. 1.--Page extracted from the check list and marked to illustrate the method of computing the score. Column A (50 points) plus Column B (25 points) equals the CHR score (75 points).

The discussion of the questions.--Part Two of the Guide provides a more complete discussion of each question than is desirable to put on the check list, but is essential to the Guide when it is to be used by persons without training in public health. Part Two of the Guide is arranged in the same sequence as the check list. The major question in each item is restated, followed by a discussion of the question and direction to a source of information as shown in the following illustration:

IV. Does the County Health Department provide the following services?

1. Recording and analyzing health data. Items A-B-C-D-E- and F.

DISCUSSION: Vital Statistics, or the record-keeping of the Health Department, is an essential activity of every health agency. It is a legal responsibility of the Health Department and provides the base on which all other parts of the public health programs are constructed. Properly organized the Vital Statistics Office gives the health personnel a measurement of success in community health management and provides direction as to the kinds of programs needed. Unless these records are maintained in the County Health Department, the staff is handicapped in the administration of the public health program.

SOURCES OF INFORMATION: County Health Department.

Fig. 2.--A portion of Part Two of the Guide reproduced here to illustrate the method of presenting this part of the Guide.

Notes on needs.--Part Three of the Guide is provided so the person using the Guide may systematically record any special situations which might not be specifically covered in the check list. The arrangement of Part Three of the Guide is in the same sequence as Part One and Part Two with blank spaces provided for writing in any comments the

person doing the assessment may want to make in terms of community needs.

Selection of Primary Community for Study

The selection of the primary community for the study was based on the following criteria:

1. The major city in the area to be studied should have a population of approximately 50,000.

2. The community should have an active community study group interested in health.

3. The medical and hospital facilities should be generally acceptable.

The community selected for the study was a county with a population of 90,000. The major city in the county has a population of 61,000. While the area selected is primarily agricultural, a number of small industries have located there in the past few years. The initial and continued growth of the city is the direct result of the fact that it lies under the shadow of a major military post.

The military post provided a stable economy for the community during its earlier years and, although the military post is still vital to the economy, the community each year becomes less dependent on the military establishment.

The community civic groups are very active in the rural area as well as in the city. The mayor's committee on aging was especially interested in chronic disease control and, when invited, agreed to participate in the study.

The city is rapidly developing as a medical center for the area.

The number of physicians in the community has increased with the population increase and most of the medical specialities are represented in the community. There are two hospitals in the community. One is a public hospital with a convalescent facility attached; the other is a proprietary hospital.

There are a number of Indian tribes in the area of the Plains Indian group. An Indian hospital is located just outside the major city, adjacent to the military post. The Indian hospital serves the health needs of the Indian population generally.

In many respects the community is typical of the larger cities located in the Great Plains, except for the cosmopolitan flavor imported by the military personnel living in the community. A large number of the military personnel who retire each year have made the community their permanent residence.

The northern and eastern portions of the county contain part of a small mountain range, while the western and southern parts of the county are more typical of the rolling plains.

The community is served by air, rail, and several highways which allow easy communication with outlying areas and with larger metropolitan areas.

Collection of the Data

The writer, as investigator for the study, used the assessment schedule in the community selected for the study. The questions on the check list were answered by interviewing key individuals and by reference to records, including newspaper files, as recommended in Part Two

of the Guide.

A second assessment of the community was made by an independent investigator to check on the reproducibility of the data collected. The independent investigator was a qualified local health officer, but was not resident nor employed in the community. The independent investigator was familiar with the purpose of the study and was instructed in the use of the Guide.

The time for data collection by the investigator and the independent investigator was three days in each case.

The assessment schedule was used in eight additional communities to test the Guide. The eight communities were studied by students enrolled in courses at the University of Oklahoma Medical Center.

The students were not told that they were testing the Guide, but were told that the Guide would help them to understand the communities in which they were working. Each student conducted the study independently of the other students.

There were two groups of students used in the study. Group I were nurses, hospital and public health, who were enrolled in a two-week course in the Medical Center. All nurses were employed full time. The students had originally been selected for the course by inviting a public health nurse and a hospital supervising nurse from each county. While these nurses were experienced practitioners of their profession, none were experienced in the use of community assessment schedules. The use of the Guide was a part of their assignment in the course. Each of the communities studied by the nurses had two schedules completed assessing the resources. Each nurse used the schedule in the community where she

was employed.

Group II used in the study were pre-junior medical students at the University of Oklahoma enrolled in the CO-STEP program. The medical students were assigned by their instructor to communities selected on the basis of size and location within the state. Each student was assigned to a clinician in the community selected for his summer study. The primary objective for each of the medical students was to determine how heart patients were managed in their assigned community. The course instructor requested that the Guide by made available to the students to help them assess the community resources.

The students in Groups I and II were given a brief (one-half to one hour) period of instruction in the use of the Guide before going to their respective communities.

CHAPTER III

RESULTS

Interpretation of Data Collected in the Primary Community

The assessment of community resources and needs in the primary community of the study revealed that the community had an actual score of 470 points, a potential score of 385 points, and a total community health resources score of 855 points.

Expressed in terms of community needs, these figures indicate that the community is meeting 47 per cent of the needs for a community heart control program and if the potential resources (38.5 per cent) were realized, the community could meet 85.5 per cent of the needs for a community heart control program as described by the Guide.

The assessment of community potential, as pointed out earlier, involves the delineation of two gaps between community resources and needs, rather than one. The first gap that may be demonstrated is the gap between actual resources and needed resources. This gap in the community studied by the writer is 53 per cent, or the difference between 100 per cent needed resources and the 47 per cent of needed resources actually being provided in the community.

The second gap that is of importance is the gap between the resources being used (actual) and the resources which could be used (total

community resources). This gap in the use of resources in the community studied is the community resources potential or 38.5 per cent of the resources needed for a community heart disease control program.

Table 1 summarizes the results of the assessment in the primary community by the writer. The table shows the community resources scores by items on the check list.

Resources for hospitalization and treatment ranked the highest in the community with over 90 per cent of the resources required by the check list being demonstrated as actual resources. Actual resources for professional education and rehabilitation and public education scored 50 per cent or above, while actual resources for the other items in the Guide scored below 50 per cent of actual resources needed.

Items I, II, VI, XII and XIII show a total community health resources score equal to the total points assigned to those items.

Every item but one, Item IX, follow-up services, demonstrated a resource potential beyond the actual resources available.

Items showing the highest potential resources were in the areas of preventive health services, research, early diagnosis, and public education.

Comparison of Assessments made by the Writer and the Independent Investigator

An assessment of the primary community was made by an independent investigator. The assessment made by the independent investigator gave the community a community health resources score of 825 points out of the 1,000 points possible, or 82.5 per cent of the resources required for a community heart control program. The community health resources

TABLE 1

ACTUAL, POTENTIAL AND COMMUNITY HEALTH RESOURCES SCORES BY MAJOR ITEMS IN PRIMARY COMMUNITY STUDIED BY INVESTIGATOR A1

Item in Guide	Subject	Actual Points	Potential Points	CHR Points	Deficit Points	Total Points
I-II	Community organization and demography	15	30	45	0	45
III-IV-V	Preventive services	105	100	205	45	250
VI	Research	5	55	60	0	60
VII	Early diagnosis	45	70	115	20	135
VIII	Hospitalization and and treatment	145	5	150	10	160
IX	Follow-up	0	0	0	50	50
X	Custodial care	20	40	60	10	70
XI	Rehabilitation	50	20	70	10	80
XII	Professional education	35	15	50	0	50
XIII	Public education	50	50	100	0	100
	Totals	470	385	855	145	1,000

score given the community by the writer in the initial assessment was 855 points or 85.5 per cent.

Table 2 shows the actual, potential and community health resources score for the study of the primary community by the independent investigator.

The study by the independent investigator ranks resources for professional education highest in the community with 100 per cent of the resources required on the check list demonstrated as actual resources. Actual resources for Items I, II, VIII, XI, XII and XIII scored above 60 per cent of points assigned to the items on the check list. Items I, II, IX, XII and XIII show a total community health resources score of 100 per cent of the points assigned to those items on the check list.

The assessment carried out by the independent investigator gave the community a score of 567.5 points for actual resources and a score of 257.5 points for potential resources.

Table 3 shows a comparison of community resources score of the two assessments, by items. The greatest point differential between the two assessments was 20 points, except for Item IX. Subsequent investigation showed that there had been some actual change in the resources for carrying out a follow-up program in the community between the time of the first assessment and the second assessment.

The writer and the independent investigator, following the instructions on the use of the Guide, entered comments on each item on the check list in the space provided in Part Three of the Guide.

The notes made on each item, while not identical in the two assessments, recognized the same general needs.

TABLE 2

ACTUAL, POTENTIAL AND COMMUNITY HEALTH RESOURCES SCORES BY MAJOR ITEMS

IN PRIMARY COMMUNITY STUDIED BY INDEPENDENT INVESTIGATOR A2

Item in Guide	Subject	Actual Points	Potential Points	CHR Points	Deficit Points	Total Points
I-II	Community organization and demography	42.5	2.5	45	0	45
III-IV-V	Preventive services	105	80	185	65	250
VI	Research	15	30	45	15	60
VII	Early diagnosis	65	40	105	30	135
VIII	Hospitalization and treatment	110	20	130	30	160
IX	Follow-up	25	25	50	0	50
X	Custodial care	0	50	50	20	70
XI	Rehabilitation	65	0	65	15	80
XII	Professional education	40	10	50	0	50
XIII	Public education	100	0	100	0	100
	Totals	567.5	257.5	825	175	1,000

TABLE 3

COMPARISON OF CHR SCORES IN TWO INDEPENDENT ASSESSMENTS OF THE SAME COMMUNITY

Item in Guide	Subject	CHR Score		Total Assigned Point Value
		A1[a]	A2[b]	
I-II	Community organizations and demography	45	45	45
III-IV-V	Preventive services	205	185	250
VI	Research	60	45	60
VII	Early Diagnosis	115	105	135
VIII	Hospitalization and treatment	150	130	160
IX	Follow-up	0	50	50
X	Custodial care	60	50	70
XI	Rehabilitation	70	65	80
XII	Professional education	50	50	50
XIII	Public education	100	100	100
	Totals	855	825	1,000

[a]Assessment by the writer.

[b]Assessment by independent investigator.

This is reflected in Table 4 which compares the actual score of the two assessments and the potential scores of the two assessments by items on the check list. Both assessments show high potential scores for the items dealing with preventive services, research, early diagnosis, and custodial care. The high potential scores indicate the existence in the community of many resources which are not being used. The notes made by the writer and the independent researcher point out essentially the same needs in these areas. While the actual and potential points given each item by the two investigators differ, the conclusions drawn by the two investigators from these scores were essentially the same.

Comparison of Scores in Selected Oklahoma Communities

The results of assessments of eight Oklahoma communities by two groups of students are shown in Table 5. These communities represented a range in population of 346,038 to 24,252. The community health resources score showed a range of 870 points to 578 points.

The assessments made by the nurses tended to score higher than those assessments by medical students. The difference is attributed more to the size of the communities studied than to the person doing the assessment. There is, however, some evidence (not conclusive in this study) that a person's background has some influence on the assessment in that a more critical assessment is made in the areas in which the investigator is most competent. This statement is based on the tendency of the nurse to give a higher potential score on the assessment. The nurses were employed in the communities they studied and were more familiar with the resources in the community. The medical students were

TABLE 4

COMPARISON OF ACTUAL AND POTENTIAL SCORES IN TWO INDEPENDENT ASSESSMENTS OF THE SAME COMMUNITY[a]

Item in Guide	Subject	Actual		Potential	
		A1	A2	A1	A2
I-II	Community organization and demography	15	42.5	30	2.5
III-IV-V	Preventive services	105	105	100	80
VI	Research	5	15	55	30
VII	Early diagnosis	45	65	70	40
VIII	Hospitalization and treatment	145	110	5	20
IX	Follow-up	0	25	0	25
X	Custodial care	20	0	40	50
XI	Rehabilitation	50	65	10	0
XII	Professional education	35	40	15	10
XIII	Public education	50	100	50	0
	Totals	470	567.5	385	257.5

[a]A1 - assessment by the writer; A2 - assessment by an independent investigator.

TABLE 5

COMPARISON OF SCORES IN THE ASSESSMENT OF POTENTIAL RESOURCES IN EIGHT OKLAHOMA COMMUNITIES BY POPULATION AND INVESTIGATION

Community	Population	Points Scored			Investigator[a]
		Actual	CHR	Potential	
1	346,038	805	860	55	N
2	61,866	730	870	140	N
3	47,600	435	695	260	N
4	39,044	587	855	268	N
5	29,590	745	680	135	MS
6	28,301	665	820	155	MS
7	28,290	525	578	53	MS
8	24,252	525	635	110	MS

[a]N - nurse; MS - medical student.

in their communities only a short time and were not as well acquainted with the community resources.

The scores shown in Table 5 illustrate that each person using the Guide was able to demonstrate a difference between actual resources and total community health resources, thereby identifying potential community health resources.

The eight assessments made by the four nurses and four medical students demonstrated that the Guide meets the pre-set criteria for such an instrument. The time for instruction in the use of the Guide was less than two hours; the time for collection of the data was less than one week. In each case where an oral report was given the time required was less than one hour. The Guide represents a simplified method of community assessment which may be used by persons without experience in the assessment of community resources.

Conclusions

The information produced when two independent investigators used the Guide demonstrated that the method of community assessment is reliable in the assessment of total community health resources. The assessment made by the writer gave the primary community a score of 85.5 per cent of the possible points and the assessment by the independent investigator gave the community a score of 82.5 per cent of the possible points.

The use of the Guide by persons with limited experience in community assessment and with brief instruction demonstrated that the assessment schedule met the criteria and need for a simplified method

of assessment that could produce meaningful data for planning.

The method of assessment used in the study enables the investigator to arrive at a resource potential for a community. The determination of resource potential is considered to be important in the motivation of community groups in the development of specific health programs. The determination of resource potential requires that these resources be identified. Once the resources have been identified the public may be informed of the existence of these resources and the action required to make the resources actually available to the community.

The writer is led to believe that there exist important differences in the ability of communities of different sizes (population) to provide needed resources for community health services. The further exploration of this apparent difference and the establishment of base line scores in all communities of the state would be a valuable asset to health agencies in the state.

CHAPTER IV

RECOMMENDATIONS FOR USING THE ASSESSMENT GUIDE

There are three principal uses for the method of community assessment developed as a part of the study. It should be pointed out that the Guide developed for this study was specifically for a community heart disease control program, but the method can be used for any specific health area.

The method for community assessment can be used by: (1) the staff members of a local health department to make periodic assessments of community resources for any specific program which is being developed in the community; (2) the members of a community study group as a learning experience, as well as a planning tool; and (3) qualified public health persons under controlled situations to compare the availability of community health resources in several communities.

The Use of the Assessment Guide by a Community Study Group

The method of presenting the Guide to the community study group should be determined by the availability of persons experienced in the development and use of assessment schedules. If an experienced person is available, the Guide should be presented in skeleton form so that the study group can fill in the specific questions. As a learning experience

for the study group, the debate over the questions to include provides what is probably the longest lasting benefit of the assessment. This technique places on the study group the responsibility for the study and involvement in the study.

Without experienced persons to provide leadership (or consultation) for community study groups, it is essential that the assessment check list be complete when given to the community. In this case, it is important that each question be discussed with the study group so that any questions may be answered before the study is started.

When the assessment guide is used by a community study committee it is important that the committee be selected with extreme care. As Fleck (18) points out in his article, "A Public Administrator Looks at Chronic Illness Surveys," the success of the survey can often be predicted as soon as the committee is appointed.

Of particular importance is the need to include a balance between the providers of health services and the consumers of health services.

The organization of the Guide lends itself to the assignment of major items in the Guide to sub-committees. This approach allows each sub-committee to concentrate on one area and makes the assignment of sub-committee members easier in that they may be assigned along the lines that meet their interest and experience.

The study sub-committees should be asked to meet and discuss the material included in the section assigned to them before attempting to complete the check list. Here again, the value of the discussion is important to the learning process involved in the assessment.

The reports of the sub-committees should be made at a general meeting of the study group. A technique which can be used to highlight the reports is to have a person post the scores (actual-potential-total community health resources-deficit) on a chart as they are given by the sub-committee chairmen. A report on recommendations from each sub-committee should be requested and also posted.

The use of this technique encourages short, to-the-point reporting and gives the study group a summary of the assessment at the time of the report, rather than having to wait for an extended period for the combined report.

The Establishment of Priorities for Community Action

The priorities for community action should be established by the community study group. The assessment Guide identifies for the study group the major deficits in community health services. These deficits are demonstrated as deficits in service that result from the improper use or non-use of existing community resources and deficits in health services that result from non-existence of necessary resources.

With this differentiation of unmet needs provided by the use of the Guide, the study group may elect to establish, as priorities for action, the closing of the gap between the actual resources and the potential resources in the community.

The ability to establish priorities based on the organized information presented by the Guide allows the study committee to establish two sets of community health goals. The selection of short-term goals that may be readily accomplished provides the study group (now an action

group) with the immediate success so important to holding the interest of the members. Success in the short-term goals makes the possibility of achieving the long-term goals much greater.

The use of the method of assessing community resources offers the community a systematic approach to the collection and analysis of reliable information on the community health resources. That method is usable by a community study group and can be carried out in a reasonable length of time.

CHAPTER V

SUMMARY

The objective of the study was to develop and test an orderly system of assessing community resources and needs which may be used by public health officials and volunteer health committees in the development of specific community health programs.

A community study guide was designed to assess the actual, potential, and total community resources for a community heart disease control program. The study guide provides a check-off system of identifying community resources and each question on the check list was assigned a value in points. The value rating of each question makes it possible to score the community assessment numerically.

A community with a population of approximately ninety thousand people was selected to test the study guide. Two assessments of the community were made for the study. The assessment of community resources made by the writer gave the community a community health resources score of 855 points or 85.5 per cent of the resources for a community heart disease control program. The assessment by an independent investigator gave the community a community health resources score of 825 points or 82.5 per cent of the resources for a community heart control program.

The study guide was used by four nurses and four medical students

in the assessment of community resources and needs in eight additional communities. The eight persons were given a brief orientation to the study guide and no subsequent advice or help was provided. In each case the assessment of resources and needs was completed satisfactorily and a community health resources score for a community heart control program was determined for each community.

The method of assessing community health resources described in this study is adaptable to other specific community health programs and can be used by public health officials and community health committees as an efficient and orderly system of assessing community health resources and needs.

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