THE NEXT STEPS

IDENTIFYING AND PLANNING
FOR THE HEALTH NEEDS
OF UNDERSERVED POPULATIONS

PREPARED BY THE

PROGRAM EVALUATION SUBGROUP
OF THE
WORK GROUP ON
COMMUNITY HEALTH SERVICES

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Introduction

The Work Group on Community Health Services is funded by the Bureau of Health Care Delivery and Assistance (BHCDA) of the Department of Health and Human Services. It consists of primary care experts from community and migrant health centers, academia, and public health organizations. The Work Group is dedicated to developing a clinical management and evaluation strategy that will enhance the effectiveness of community primary care services, increase community involvement in service planning and delivery, and promote access for medically underserved populations. An effective strategy evaluation will facilitate the transition from a traditional medical practice focused on the patient-provider interaction to a form of health practice focused on community needs and community health system interaction. This form of health practice emphasizes health management and bases program planning and evaluation on an epidemiological understanding of the community's needs and problems.

In order to achieve these goals, a major part of the Work Group's efforts will be devoted to producing a needs assessment compendium that can be used to link community health care center management, program planning, and evaluation to an understanding of the community's needs and problems. The session on "Winning The Numbers Game" presents an interim step in the Work Group's needs assessment activities. In order to provide a brief description of the range of information that will be provided in the Work Group on Community Health Services' needs assessment compendium, several of the major subjects that will be covered are outlined in the succeeding pages.

I. Needs Assessment Concepts, Techniques, and Tools

The Work Group's needs assessment compendium will provide a practical guide for conducting needs assessment. It will also discuss the conceptual basis of needs assessment, its relationship to the Year 2000 Objectives, and the strengths and weaknesses of available needs assessment techniques. The following outline of seven chapters provides more specific information on the contents of the compendium.

I.   A Practical Guide to Needs Assessment for Professionals

II.   What is Needs Assessment?

        1.   Definitions
        2.   Content - What is in it?
        3.   Context - How we view it.

III.   Conceptional Basis for Needs Assessment

        1.   Health Planning
        2.   Policy
        3.   Political
        4.   Community
        5.   Data Analysis

IV.   Community Needs Assessment and The Year 2000 Objectives

        1.   Overview
        2.   Health Status
        3.   Health Promotion
        4.   Risk Reduction (Prevention)
        5.   Preventive Services
        6.   Data Systems/Surveillance

V.   Strategies for Maximizing Needs Assessment Effectiveness and Utilization

        1.   Specific Strategies
        2.   Federal Initiatives

VI.   Community Needs Assessment - A General Model

        1.   A Framework for Measurement
                -       Integrate epidemiology, statistics, clinical and evaluation concepts
                -       Fiscal, process, structure and outcome oriented measurement

        2.   Selection of Criteria
                -       Types of needs assessment models (according to selected practice variables)
                -       Type of indicators and indexes (demographic, clinical, statistical, epidemiology)

        3.   Program vs. Community Assessment

VII. Community Needs Assessment Techniques

    1.   Community Driven
        a.   Key Informant
        b.   Community Forum
    2.   Data Driven (Local)
        a.   General Population Survey
        b.   Service Provider Survey
        c.   Service Population Survey
        d.   Rates Under Treatment Approach
    3.   Data Driver (State)
        a.   Mental Health Demographic Profile System
        b.   Geo-Demographic Models
        c.   Federal Initiatives
        d.   Sentinel Events

II. Community Needs Assessment and Computer Graphics

In order to provide care efficiently, primary care providers must understand the extent and distribution of the major health needs of their target population. They also must be knowledgeable about other forms of care which augment their programs and the characteristics of users of different programs. Computer graphics can serve as a major aid in this process. By developing a computer-generated graphics capability or contracting with universities and consultants to provide such services, health agencies can utilize a technique that facilitates the display and assessment of a wide variety of data. For example, computer-generated graphics programs can be used to assemble data on all of the following:

- *The health status, including the determinants of health status, of service area residents;*

- *The status of the health care delivery system and the area residents' use of that system;*

- *The effects of the health care delivery system of the health of area residents;*

- *The number, type, and location of the area's health resources, including services, manpower, and facilities;*

- *The pattern of utilization of the area's health resources;*

- *The environmental and occupational factors which effect immediate and long-term health conditions;*

In addition to dealing with these six areas, a more sophisticated community health assessment may also use computer graphics to display and analyze data dealing with other important health service elements including hospitals, health departments, health maintenance organizations, and insurance companies. The basic functional aspects of hospital accessibility: time, cost, and distance, can be mapped to show areas of high or low accessibility. This approach is valid for determining patient accessibility to emergency rooms, community health clinics, county public health departments, patient-physician visits, and nursing homes. Medical trade areas or hospital service areas may be delineated through patient origin studies. Such studies may identify patients as points or line flows indicating volume or as areas using circles with variable radii or eclipses based on the standard deviation or an areal distribution. Manpower data may be mapped to illustrate under-service, scarcity, and oversupplied areas. The map can aid in making decisions as to the development and location of satellite clinics and mobile health vans. Moreover, strategies in the recruitment process can be based on locational needs for medical and paramedical personnel. Disease patterns may be mapped in relationship to facility and manpower distribution. If the health planning organization possesses the appropriate expertise, it may initiate studies dealing with the measurement and assessment of health status related to available resources.

In recent years, the use of computer graphics has been facilitated by the tendency of health planners to increasingly focus on population groups within the community (i.e., community needs assessment) rather than individuals in clinics (i.e., program needs assessment). The shift in disease patterns from infectious to chronic diseases to social diseases has also stimulated more widespread interest. Further, in the case of morbidity or mortality data, computer graphics has functional uses in addition to those previously outlined. For example, it can aid in all of the following:

- *Identifying high or low risk areas for specified diseases. There is a critical need to reduce the potential for random variability in the data in such presentations. This can be accomplished either by expanding the time period of the study or by aggregating the areas or units being investigated;*

- *Rating a community on the health status of the population by providing a community diagnosis;*

- *Setting priorities for allocation of resources in health programs by developing policy for state and district programs;*

- *Planning health and social programs;*

- *Making reports or presentations of information to state legislators, special governors' council, boards of health, planning agencies, consumer groups, and news media;*

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- *Periodically updating baseline or bench mark epidemiological data, or other health data to indicate changes in evaluation measures from one time frame to another.*

In spite of the multiple uses of computer-generated maps and graphics, this technique is not a panacea for solving health problems. However, it provides an efficient and effective method of communicating and displaying relevant information. For example, the capabilities of two widely available computer graphics programs, CONQUEST and TIGER, are described in Table 1.

III. Participation in Primary Care Research

Usually, the last thing that busy health center clinicians have on their mind is research and publication although these activities can have important benefits for the clinician, the health center, and the community. The health needs of the poor and other undeserved populations are easily overlooked by society at large (including funding agencies) unless they are constantly reminded of the distressing realities. One of the most legitimate sources available to clinicians for publicizing this situation is primary care research that documents the health status differences between the medically well-served and the medically underserved and the critical role that health centers play in trying to fill the gaps in health services. This kind of primary care research relies on objective information about community health needs from adequate and reliable data sources. Some of this work may most efficiently be produced through the pooled efforts of several health centers, but it requires the development of a thorough needs assessment program in each center.

IV. Effective Community Health Care Center Management

The utilization of community needs assessment techniques would make many health centers more responsive to the overall problems of their communities as well as more efficient. The goal of health care practices should be the development of a medical management system that uses available resources to maximize community health status. In order to achieve this goal, a C/MHC should:

- Define community health need;
- Formulate a community health problem list;
- Plan programs to solve problems;
- Allocate existing resources to maximize effect;
- Procure new resources to alleviate unmet needs;
- Analyze the impact of program health status;
- Refine all the preceding step until optimum health status is obtained.

Table 1 CONQUEST and TIGER Computer Mapping Systems

Vendor	Product	Description
Donnelley Marketing Information Services	CONQUEST	CONQUEST is a personal computer based on marketing information system, which provides access to Donnelley Marketing's demographic, economic and geographic databases. CONQUEST can analyze the demographic composition, lifestyle and socio-economic characteristics, business environment and propensity of its residents to purchase specific goods and services for 14 standard areas of geography and geometrically defined market areas including circles, rings, bands, polygons, etc. CONQUEST allows users to include information about their customers, and analyze customer characteristics, identify products and services customers are likely to purchase, and determine primary, secondary and tertiary service areas. Other applications include estimating market share, determining market penetration, competitive analysis, and market activity projections based on demographic change. CONQUEST provides access to 1970 and 1980 U.S. Census data, Donnelley's proprietary demographic estimates and projections, Cluster PLUS lifestyle characteristics and cluster-coded products and services, current year retail expenditure estimates for 21 store types, BusinessLINE businesses listings and summary data for more than 7 million businesses and shopping center and grocery store information, physician lists and DRG models, auto registration counts and lifestyle profiles, Canadian demographics, and thematic full color mapping boundaries and background reference features.
U.S. Bureau of the Census, Geo-graphic	TIGER (Topologically Integrated Geographic Encoding and Referencing System)	TIGER is a Census Bureau acronym for the new digital of the (computer readable) map data base Division that automates the mapping and related geographic activities required to support the Census Bureau. The TIGER file contains digital data for all 1990 census map features (such as roads, railroads, and rivers) and the associated collection geography (such as census tracts and blocks), political areas (such as cities and townships), feature names and classification codes, alternate feature names, 1980 and 1990 census geographic area codes, and within metropolitan areas, address ranges and ZIP Codes for streets. The Census Bureau released a complete set of the precensus version of the TIGER/Line files for the entire United States in July 1989, and the postcensus version of the TIGER/Line files in 1991.

This management system is receiving considerable attention from private and public purchasers of health care who are looking for effective methods to reduce costs while maintaining quality care. Therefore, effective development of community responsive health care management has the potential of positioning community health centers as leaders in the health care delivery marketplace.

V. Needs Assessment, COPC, and Demonstration Projects

The community-oriented primary care (COPC) concept is a modification of the traditional model of primary care because it calls for the systematic examination and analysis of community problems. According to Dr. Paul Nutting:

> In COPC, the practitioner needs to know more precisely who and where are the individuals and households who comprise his community, how they live and behave in ways that influence their health, where and when they seek care for ailments, and how they perceive and finance their care. Ideally, the practitioner would be able to actually list all the individuals in the community as a basis for subsequent identifying and focusing on high risk individuals and groups.

> Among the important characteristics of the activities of this function is the rigor and precision of the methods used to gather information on the community. Methods which yield a wide scope of detailed and relevant data are clearly of value, as are techniques that yield the less quantitative information on the social and cultural values of the community or its many important subsets.[1]

The development of appropriate needs assessment techniques is a logical application of the COPC concept. Such techniques allow C/MHCs to understand how the health problems of their user population (the numerator) compare to those of their larger community (the denominator). This focus encourages the integration of clinical and epidemiological skills and the maximization of health resources.

The COPC concept also requires continual testing to develop a comprehensive base for the teaching and practice of COPC principles. Consequently, the Work Group believes that its needs assessment recommendations should be assessed in several different sites through an "Adopt a C/MHC Strategy" that calls for training several C/MHCs to use the techniques, identifying implementation problems, and analyzing results in order to maximize usefulness. This approach will provide a practical test of the viability of the Work Group's needs assessment recommendations and facilitate the development of information that enlarges the COPC data base.

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[1]Paul Nutting (ed.), Community-Oriented Primary Care: From Principle to Practice. U.S. Department of Health and Human Services (No. HRSA-A-PE86-1), 1987, p.32.

VI. Clinical Career Development and Needs Assessment

Recent trends in Federal health policy encourage the integration of clinical input into management decisions in order to affect those individuals at greatest risk, the medically indigent. The Department of Health and Human Services has identified comprehensive health care to the indigent as one of this nations's priority health concerns. But comprehensive health care seldom exists even for the non-indigent. There is a critical need to develop and appropriately position health professionals to respond to these gaps in services. A well designed career development program responds to these service problems by augmenting the skills of current leaders and clinicians and enabling them to utilize skills such as epidemiology and needs assessment to better address the problems within their communities. These specific capabilities are not part of the traditional curriculum found in most health professional schools.

In large part, academic culture does not promote the development of effective role models in the area of community medicine. Where community based academic programs do exist they are often considered "eccentric." Physicians or faculty in such programs are often in search of tenure. Rotations designed to introduce young physicians to comprehensive primary care or community responsive medicine are often sacrificed or may only be offered as electives. Moreover, undergraduate medical education has placed a high premium on traditional hospital based curriculum and de-emphasized disciplines such as epidemiology, prevention and public health.

It is important for health professionals and students to consider clinical management and health policy as part of their career progression. Every clinician encounters opportunities to improve the health care that their patients receive. Many students and clinicians realize that to capitalize on these opportunities they must learn basic skills in organizing and managing health services. To accomplish this task, needs assessment techniques and other skills need to be learned by clinicians who serve in these challenging practice settings in order to effect change and improve the health status of the patients they serve.

Within the C/MHC program, a major commitment must be made at all levels to promote career development. Clinicians serving in these settings must have the ability to move along a career ladder which enables them to become more effective in the positions they currently hold and provides career opportunities for advancement within the overall program. There needs to be a clear progression delineated by this continuum which enables individuals who enter this career continuum to progress through opportunities designed to involve residents and interns, develop medical directors, expand skills of medical director, promote national leadership, and more formally impact on health policy through the establishment of congressional fellowships. It is only though this kind of commitment and investment in individuals who serve in underserved settings that a significant impact on the current recruitment and retention problems will be realized.

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