PART II

EXPERIENCES IN DEVELOPED COUNTRIES

Introduction to Part II

Hugh S. Fulmer and Anthony I. Adams

This book focuses on developing partnerships between medical and public health services, and the communities they serve, to define and solve community health problems. Such partnerships are by no means new, but because of the way in which they have evolved in many parts of the world, they have come to be known by a range of often confusing names. Early efforts to integrate community medicine, public health, and community-oriented primary care (COPC)—and what would fall under the definition of community-based health care—into public policy in both rich and poor countries have borne fruit. However, to reorient medical and public health service institutions, organizations, and agencies to have them view communities as they would individual patients, as fully involved in their own health, a nationwide and global revolution is needed. That revolution would insist that all health workers—physicians, nurses, public health professionals, paramedical specialists—be trained at all levels (undergraduate, graduate, continuing education) through practical experience in the community. The practicum, also called service learning, is a combination of course work and practical, community-based experience guided by academic and field faculty. This concept is hardly revolutionary, since clinicians have always been trained thus in relation to the individual patient.

The community health care movement had several beginnings, ranging from the early work of Sidney Kark (1981) in South Africa and the Arizona-based Navajo-Cornell Field Health Research project (McDermott 1960, Deuschle 1982) in the 1950s, to the innovative domestic and international clerkships at the University of Kentucky in the 1960s (Deuschle and Fulmer 1962, Fulmer, Adams, and Deuschle 1963, Adams 1964, Fulmer 1964, Adams 1965). Many of the graduates from these clerkships have attained very senior positions influencing public health, and all would credit their community experience as the critical influence on their career choice.

A World Health Organization document entitled "The Use of Health Service Facilities in Medical Education" (Deuschle et al. 1967) describes these efforts to integrate community medicine and community-based health care into medical education. The authors achieved a consensus of domestic and international proponents of these similar approaches to education within the broad community-based health care concept. The principles of community-based health care and professional training hold equally well in developed and developing nations.

Yet the need for the community itself to play a role in designing its own services awaited the Alma-Ata conference in 1978. There, the world's attention was drawn to the need to regard communities as important social entities with unique health problems and service needs, both preventive and curative. This deepened understanding of the community's role was followed by a gradual realization that involving the community at all stages of designing, delivering, and evaluating health services could expedite solving community health problems. This is the only environment in which students can learn and assimilate the team approach.

Lashof and Schauffler describe (chapter 11) some of the most important developments in the evolution of community health centers and COPC practice in the United States and bring us up to the contemporary Healthy Communities and "future of public health" movements. They review the principles of COPC, contrasting it with "primary care," and identify key tools of public policy, giving examples of their use. Large hospital-based organizations have learned the necessity of a community-oriented approach, often as a result of well-developed information systems that reveal the social and behavioral determinants of the illness eventually treated in hospitals. The Mayo Clinic (chapter 12) well illustrates the effective marriage of specialized hospital care and community action through a well-developed health information system allowing the study of the natural history of health and disease. Boumbulian and his coauthors (chapter 13) describe how a major public hospital complex, after establishing community health centers, progressed to the formation of community-based HMOs, which can effectively integrate the COPC approach. Their treatment of financing complexities demonstrates the myriad considerations required to make an economically viable, equitable health system that is responsive to the community.

Chapter 14 shows how a case management approach in Boston supports provision of HIV/AIDS services to poor populations that would otherwise fall through the cracks. By working individually with HIV-positive clients, case managers help them to learn about their own health and connect with the resources they need to stay healthy. The viability of such community-based care depends on grant funding, making such innovative and responsive efforts highly vulnerable.

Keck (chapter 15), after summarizing the substantial advances made by the public health system in the United States since the 1988 Institute of Medicine *Future of Public Health* report, demonstrates how an urban health department, in partnership with academic medical centers, can become involved in exciting teaching endeavors in training community-responsive health care professionals. The benefits of such partnerships are mutual, because they provide a teaching and research environment for students while stimulating the innovative and responsive service linkages and problem-solving approaches that communities need.

The same principles can be applied in rural settings. Pearson and Taylor (chapter 16) describe how a remarkable statewide initiative in West Virginia, where leadership emanated from a publicly funded academic health center, grew to include state government, public health, medicine, and community members. This initiative has culminated in a statewide network of clinics supported by academic services providing specialty care designed to meet the commonly defined objectives of *West Virginia Healthy People 2010.*

In chapter 17, Pörksen shows how Germany has moved to a community approach to mental health, reducing both the costs and the stigma associated with mental illness. An array of services has been established, reaching far into the community and emphasizing home care for the ill, and mental wellness.

Much has been written in recent years on the concept of "community orientation" as it applies to the training of health professionals and the delivery of health care (Cashman et al. 1999, Fulmer 1999, Rhyne et al. 1998, Cashman, Bushnell, and Fulmer 2001, Klevens et al. 1992, Thomas, Cashman, and Fulmer 1995). Health services, and thus health status, can be improved if communities are intimately involved in the assessment of community health problems, the development of interventions, and the evaluation of the effectiveness of those interventions.

Some of the most dramatic examples of how successful this approach can be in practice are found in the management of the HIV/AIDS pandemic in different parts of the world. In Thailand, the involvement of the sex worker community helped avert a potential disaster for that country, while in Australia the early involvement of the gay community, the sex workers' union, and the intravenous drug-using community were critical in preventing the spread of HIV into the latter two groups and in effecting a decline in incidence of new infections in the gay community.

A big challenge put forward by this book is how to bring the training of public health and family physicians, nurses, and health workers of all kinds into line with the new approach to delivering community-based health care. In the public health arena, it has for too long been assumed that a master's of public health degree on its own is sufficient, without—for public health physicians—a traditional residency in preventive medicine. While an MPH is essential theoretical grounding, there can be no substitute for practical experience, dedicated supervision, and mentorship. This process can take place in countless settings: health centers, health departments, community-oriented hospitals, NGOs, academic departments of public health or family practice, international aid agencies, and the community itself; the principles are universal although their implementation must be locally relevant. For example, the Harvard School of Public Health, with the global deployment of its graduates through the years, could offer a worldwide practicum with these alumni serving as field faculty, acting as mentors for the new graduates in community-based practicum experiences after they complete their MPH (or other advanced) degrees. If physicians, they could complete preventive medicine training; if nurses or other health professionals, team-training experiences with physicians could lead to new accreditation credentials for each of the disciplines.

In Boston, the 13-year-old Center for Community Responsive Care (CCRC) program, continuing the evolution of its Navajo-Cornell and Kentucky antecedents, has trained over 70 multidisciplinary health professionals, using the one- or two-year preventive medicine residency as a training model, to learn how to work with communities in partnership to identify and address community health problems. Communities, in defining themselves, learn to identify their own resources and strengths and how to evolve toward ownership of the medical/public health system serving them; and the health care system (both medicine and public health), through the catalytic action of its team-trained health professionals, learns how to become responsive to community needs and priorities in health (Cashman, Bushnell, and Fulmer 2001, Klevens et al. 1992, Thomas, Cashman, and Fulmer 1995). Notable examples of transformation processes of this kind that the CCRC training program induced in the late 1980s and early 1990s include the Codman Square, Bowdoin St., and South Boston Community Health Centers (Klevens et al. 1992, Thomas, Cashman, and Fulmer 1995). These sites now offer community-oriented medical education programs that include undergraduate and graduate practicums involving all three Boston-based medical schools and their schools of public health, nursing, and social work.

Yet these changes toward ownership by the community are evolutionary: they have not "arrived." Paul Farmer, in describing Partners in Health's work with community health programs in Boston (chapter 14), indicates that the "bottom-up" approach from the community is essential for the partnership with medicine and public health to become effective in meeting community needs. "Top-down" inducements are insufficient. Recognizing this reality, community health programs affiliated with Partners in Health have partnered with CCRC in providing training at the undergraduate, graduate, and continuing education levels to bring medicine, public health, and the community together to improve community health, combining bottom-up and top-down approaches. Such efforts are essential if the future leaders of community-based health projects are to fully assimilate community members, ownership, and control into the fabric of community-based health care. We hope this book will provide the long-needed impetus for a great expansion of the concept not only in the United States but also around the world.

REFERENCES

Adams, Anthony I. 1964. "Kentucky Medical Students Abroad." *Journal of the Kentucky Medical Association* 62: 378.

———. 1965. "Teaching International Community Medicine." *Archives of Environmental Health* 10: 95.

Cashman, S. B., F. K. L. Bushnell, and Hugh S. Fulmer. 2001. "Community-Oriented Primary Care: A Model for Public Health Nursing." *Journal of Health Politics, Policy and Law* 26: 617–34.

Cashman, S. B., et al. 1999. "Carrying out the Medicine/Public Health Initiative: The Roles of Preventive Medicine and Community Responsive Care." *Academic Medicine* 74: 473–83.

Deuschle, K. 1982. "Community-Oriented Primary Care: Lessons Learned in Three Decades." *Journal of Community Health* 8: 13–22.

Deuschle, K., and Hugh Fulmer. 1962. "Community Medicine: A New Department at the University of Kentucky." *Journal of Medical Education* 37: 434–45.

Deuschle, K., et al. 1967. "The Use of Health Service Facilities in Medical Education." WHO Technical Report Series. Geneva: World Health Organization.

Fulmer, Hugh S. 1964. "Teaching Community Medicine in Kentucky." *Harvard School of Public Health Alumni Bulletin* 21: 2–6.

———. 1999. "Community-Oriented Primary Care: An Approach to Health Care for the 21st Century." *CommonHealth* 7: 10–12.

Fulmer, Hugh S., Anthony I. Adams, and K. W. Deuschle. 1963. "Medical Student Training in International Cross Cultural Medicine." *Journal of Medical Education* 38: 920.

Kark, Sidney L. 1981. *The Practice of Community-Oriented Primary Care.* New York: Appleton-Century-Crofts.

Klevens, M., et al. 1992. "Transforming a Neighborhood Health Center into a Community-Oriented Primary Care Practice." *American Journal of Preventive Medicine* 8: 62–65.

McDermott, W. 1960. "Introducing Modern Medicine in a Navajo Community." *Science* 131: 197–205 and 280–87.

Rhyne, R., et al. 1998. "Community Oriented Primary Care: Health Care for the 21st Century." Washington, DC: American Public Health Association.

Thomas, C., S. Cashman, and Hugh Fulmer. 1995. "The Cluster Committee: Setting the Stage for Community-Responsive Care." *American Journal of Preventive Medicine* 11 (Pt. 1): 9–18.

11

The Evolution of Community Health Centers and Community-Oriented Primary Care

Joyce C. Lashof and Helen H. Schauffler

"Community-oriented primary care," a term used in the United States, is in many ways synonymous with primary health care, as it is used in international health circles. Both address the social, economic, and environmental factors underlying ill health, both emphasize health promotion and disease prevention, and both promote the use of community-based, multisectoral approaches to improving health. Community health centers (CHCs) in the United States have historically tried to add these broader elements to the clinical medicine practiced at these institutions. This has become more challenging as market forces incline the CHCs to turn away from services that fall outside the more narrowly defined clinical medicine.

—Gail Price

This chapter reviews the development of community-oriented primary care (COPC) in the United States. It also presents some of the current trends in both public health and medical care that offer new opportunities to further the practice of COPC.

The term community-oriented primary care, first used by Sidney Kark, was based on his experiences as a primary care physician in South Africa in the 1950s. His assignment was to set up a clinic in a rural area that had no health facilities. First he mapped where the members of his community lived; then he assessed what the prevalent health problems of the community were. Rather than developing interventions independently of the community, he involved community members in setting priorities and enlisted their support in designing specific health programs. It was this model that the early developers of the neighborhood health center movement drew upon in the 1960s. When President Johnson declared his War on Poverty and set up the Office of Economic Opportunity to combat joblessness, lack of adequate housing, and lack of educational opportunities, he also sought new ways to bring health care services to underserved communities. The model that was instituted by Drs. Geiger and Gibson, first at Mound Bayou, Mississippi, and Columbia Point in Boston, and then replicated in New York, Chicago, and Denver, established a neighborhood health center that included the community in its governance. The centers were designed to be more than a place to deliver primary care. They were looked to as social institutions that would address the socioeconomic and environmental problems that were important in determining the health of the community.

For example, the Mile Square Health Center in Chicago, which served a population of 25,000 people living in an area of one square mile, engaged in extensive outreach services to the community using community health aides, public health nurses, and community mental health workers, and a community organization that served as the center's board. Community activities ranged from consultation with the elementary schools to public health nursing visits to the housing projects; from dealing with housing violations to marching to obtain a traffic light at a dangerous intersection. In Mound Bayou, Mississippi, the center took the lead in helping the community develop a farming cooperative and build latrines, and center physicians prescribed food for the malnourished.

The success of these initial centers in bringing culturally sensitive, community-based, and accessible services to previously underserved populations led to the rapid expansion of the Neighborhood Health Center Program and its eventual transfer to the Public Health Service. Initially funded by the Office of Economic Opportunity, the centers were renamed Community Health Centers (CHCs) and came under increasing pressure to become self-sufficient through Medicaid, Medicare, and sliding scale fees. Today, although economic pressures have reduced the array of services and outreach activities, some 670 CHCs serve over 8 million people and continue to provide primary care services. These services are combined with a somewhat more limited public health approach, which continues to offer some "wraparound" services such as translation and social services. Although community boards remain a critical component of CHCs, their responsibility for a defined community is much less clear than it was in the earlier neighborhood health centers. Detailed studies demonstrating the effectiveness of CHCs in improving access to care, reducing infant mortality rates, preventing rheumatic fever, improving the detection of hypertension, and reducing hospitalization rates were published in the late 1960s and in the 1970–80 decade (Geiger 1983, 78–79).

In 1982, the Institute of Medicine sponsored a conference to explore the applicability of COPC to the health care system as a whole. At that conference, Dr. Geiger suggested that COPC is a synthesis in which "all [these] elements of community orientation, demographic study, epidemiologic investigation, personal medical services, environmental intervention, community organization and health education [should] be performed by the same practice or team, or at least by a small number of practices and health agencies acting as a single system (not just coordinated)"(Geiger 1983, 70). Mullan characterized COPC as the reunion of public health and personal clinical health services (Mullan 1987, 29). After this conference, the Institute of Medicine undertook a yearlong study to more thoroughly examine the essential elements and organizational aspects of COPC. Their report, issued in 1984, distinguished COPC from traditional primary care in five ways:

1. COPC is *population based,* defining its community as both active users and nonusers of the clinic, while primary care views patients as individuals.
2. COPC *uses epidemiologic methods* to determine the health needs of the larger community, whereas primary care is case oriented.
3. COPC *includes intervention strategies that address both individual cases and the population at large;* planning for primary care is primarily concerned with utilization.
4. *Service providers play multiple roles* in COPC, whereas primary care is designed to use professional specialties.
5. *Community involvement* in clinic planning and implementation is also an essential ingredient of COPC, which enables the clinic staff to become familiar with community structures and resources that are essential for undertaking broader health promotion and disease prevention initiatives (Institute of Medicine 1984, 1).

The IOM study also developed an operational model of COPC to help centers evaluate themselves and to serve as a model for development of new centers. This model of a primary care practice serving a defined population contains four elements:

1. definition and characterization of the community;
2. identification of the community's health problems;
3. modification of the health care program in response to the community health needs;
4. monitoring of the impact of program modifications.

More simply, COPC represents the integration of public health and primary care with the goal of improving the health status of a community. It emphasizes health promotion and disease prevention in addition to treatment of illness.

Our knowledge of the multifactorial nature of the major killers today reinforces the need for such an approach. A panel of experts assembled at the Carter Center in 1984 examined the 13 leading health problems in the United States. They estimated that 66% of the deaths under the age of 65 that occurred in 1980 could have been postponed if all the social, environmental, and behavioral factors leading to death and disability were effectively controlled.

McGinnis and Foege (1993) looked at some of the underlying causes of death and quantified the major external, nongenetic factors that contribute to death. They developed a list of the 10 leading causes of death and estimated the number due to each cause:

- *smoking* contributes to cancer, heart disease, pulmonary disease, low birthweight, and burns;
- *poor diet and inactivity* contribute to cardiovascular disease, including stroke and high blood pressure; Doll and Peto (1981) estimated that at least 35% of all cancer deaths can be attributed to diet, and approximately half of all Type II diabetes is estimated to be preventable by obesity control;
- *alcohol* underlies 60–90% of cirrhosis deaths, 40–50% of motor vehicle fatalities, 16–67% of home injuries, fire fatalities, and job injuries;
- *microbial agents* are an important cause of death, although they are no longer the threat they were. (This category excludes deaths due to HIV or attributed to alcohol, tobacco, sexual behavior, or use of illegal drugs.) A significant percentage of these deaths are preventable;
- *toxic agents,* including occupational hazards, environmental pollutants, contaminants of food and water supply, and occupational exposures, have been linked to 4–10% of cancer deaths, and 1–3% of cardiovascular and pulmonary deaths;
- *firearms* pose a unique problem in this country for young males, whose homicide rates are 12 to 273 times those in other industrialized countries. In 1986, there were 1,043 homicides among males age 15–19, compared with 6 in Canada and 2 in Japan. Homicides now account for 41% of deaths among black males age 15–19;

- *unprotected sexual intercourse* is associated with excess infant mortality rates among those whose pregnancies were unintended, sexually acquired hepatitis B, and HIV;
- *motor vehicle accidents* result in deaths that could be prevented by seat belts, air bags, and bicycle helmets;
- *illicit drugs* implicated in deaths include those reported to the vital statistics system as drug related as well as those from drug-related HIV infection, automobile injuries, and hepatitis infection.

It is important to recognize that to have an impact on these causes of death we will need to look at a broader array of interventions than that offered by traditional medical care.

Building on these and other data related to social determinants of health, the Public Health Service (2000, 18) in *Healthy People 2010* cited individual behavior and environmental factors, both social and physical, as being responsible for 70% of all premature deaths in the US. The PHS also highlighted the marked disparity in health status between racial and ethnic groups and noted the importance of socioeconomic status and the impact of social environment on health in setting the goal of healthy people in healthy communities.

The Codman Research Group and the United Hospital Fund of New York analyzed hospitalization rates for a series of conditions, including hypertension, cardiac failure, acute asthma, and uncontrolled diabetes, in which early diagnosis and treatment could have prevented hospitalization (Institute of Medicine 1993, 105). A review of these diagnoses suggests not only that early diagnosis and treatment would have prevented the majority of such admissions but also that many of these conditions are the result of modifiable social and environmental factors. Data on hospital admissions for relatively controllable chronic conditions reveals a similar pattern of marked discrepancy between low- and high-income neighborhoods (Institute of Medicine 1993, 13). A COPC practice clearly provides the opportunity to address such issues through provision of comprehensive primary care, careful program monitoring, and outreach activities.

To address the underlying causes of premature death and preventable morbidity, we need to go far beyond the clinical and individual approach. A growing body of literature over the past decade has broadened our understanding of the interrelated behavioral, social, economic, and environmental factors responsible for unnecessary morbidity and mortality. We have come to a recognition that if we are to have an impact on our major health problems we must not only direct a much larger share of our health care resources toward preventive strategies but also expand our vision of what we include in our prevention armamentarium.

Partners for Prevention has defined the essential elements of prevention as falling into three categories: clinical preventive services; community-based health promotion and disease prevention; and public policy for health promotion and disease prevention. An elaboration of this approach was presented in "Health Promotion and Disease Prevention in Health Care Reform."[1] This report discusses the actions that need to be taken to ensure that each of these areas are addressed.

Clinical preventive services are, of course, an essential element of primary care. The US Preventive Services Task Force continues to review and recommend age-appropriate clinical preventive services, including screening, immunizations and counseling based on an evaluation of the effectiveness and cost-effectiveness of these procedures. A COPC practice needs to have a monitoring system to ensure that the age-appropriate clinical preventive services are provided to all members of the population for which they are responsible.

Community-based health promotion and disease prevention present a bigger challenge. The World Health Organization defines health promotion as "The process of enabling people to increase control over, and to improve their health. To reach a state of complete physical, mental and social well being an individual or group must be able to identify and to realize aspirations, to satisfy needs, and to change or cope with the environment"(WHO 1986). This definition requires that we go well beyond the health care system to identify the most effective way to create conditions conducive to health. To accomplish this requires developing partnerships with a broad array of community and social agencies, both governmental and nongovernmental, that can address the underlying conditions that we now know are so important in

---

[1] The following section is adapted, with permission, from Helen Schauffler, "Health Promotion and Disease Prevention in Health Care Reform," *American Journal of Preventive Medicine* (1994) 10: 1–31.

determining health status. Effective community-based programs require assessment of community health problems, priority-setting, and collaborative planning. Health departments have the responsibility for collecting epidemiologic data not only on morbidity and mortality but also on the prevalence of risk factors, and for monitoring and evaluating community-based interventions. Public health agencies and COPC practices can play a key role in bringing together the community and voluntary and governmental agencies to set priorities and develop effective interventions. Community-based interventions include such diverse activities as school curricula that include conflict resolution to decrease violence, outreach workers that can provide health education in the home as well as link patients with health care providers, parenting programs for teenage mothers, and antismoking campaigns in the community and in the schools.

The third element that must be part of a holistic approach to disease prevention is the public policy approach. Historically, this approach has been responsible for the major advances in health. The sanitary reform movement of the 1800s was responsible for the early decline in infectious diseases, and the social reform movements of the first half of the twentieth century were responsible for improved working conditions, housing laws, and child protection.

Certain principles must underlie the development of healthy public policy, which must be:

- developed with the understanding that the major determinants of health are behavioral and environmental, including not just the physical environment but the social, cultural, and economic environment. Poverty remains the single most important predictor of health status.
- consistent with national goals, such as those set out in *Healthy People 2010,* "Objectives for Improving Health";
- population-based and grounded in research (there should be more emphasis on epidemiologic research concentrating on underlying causes);
- equitable: designed to reduce disparities in health and recognize the needs of special population groups;
- fair in distributing the burden of responsibility for implementing or paying for a policy and respectful of individual liberty.

A number of policy tools are available and multiple tools appropriate to the specific problem need to be utilized. These tools include:

- *participatory decision-making:* The public must be actively engaged in understanding the factors that are important in their community and developing appropriate policies;
- *public education:* This is essential and must involve all avenues (e.g., schools, media) and be clear, targeted, culturally sensitive, and linguistically appropriate;
- *incentives to promote healthy behavior:* These are difficult to develop and often controversial, but one successful example is providing infant car seats or other infant products to women completing prenatal care;
- *taxation:* The most successful example, of course, is the cigarette tax, which has its greatest impact on decreasing smoking in young people. Many other tax policies to influence behavior can be used;
- *regulation:* This relates to the advertising, sale, and use of various products as well as development and enforcement of environmental standards.

All three approaches—clinical preventive services, community-based health promotion, and public policy—can work together to attack some of our major health problems, for example, smoking. Clinical approaches include counseling by a physician and use of nicotine replacement therapy and other drugs approved by the FDA to treat tobacco dependence. Community-based approaches are school education, making smoking socially unacceptable, and antismoking campaigns such as the Great American Smokeout. Public policy interventions encompass warning labels, taxation, limitations on advertising, restriction of sales to minors, bans on smoking in public places, and antismoking ads.

Similarly, teen pregnancies can be prevented using a combination of approaches: clinical (contraception provided by private physicians, schools, and community clinics), community based (health education, teen social programs, and social support groups), and public policy (increase educational and job opportunities, provide positive role models, and use the media to provide information on contraception).

Nutrition can be addressed in the clinic via dietary advice and counseling or weight reduction clinics; in the community, via heart-healthy menus in restaurants, community gardens, and healthy school lunch programs; and through public policies related to food labels, limitation of advertising of junk food (especially that directed to children), provision of school breakfasts in low-income communities, food stamps, and the WIC program (the Supplemental Food Program for Women, Infants, and Children).

Many more examples of the three elements of prevention could be developed to illustrate ways to address each of the leading causes of death.

Today's health care climate offers opportunities to further the principles of COPC. Although there are many barriers to any single organization embracing all elements of both comprehensive primary care and public health, the potential for collaboration between communities, social and public health agencies, and medical care systems exists. HMOs are being held accountable for providing personal preventive services. The Centers for Disease Control and Prevention, in collaboration with the National Association of County and City Health Officials (NACCHO), has launched an initiative entitled Mobilizing for Action through Planning and Partnership (MAPP). Their recently released field guide (NACCHO 2001) calls for:

- mobilizing the community using a community-driven process;
- actions to access community resources and improve community health;
- collaborative planning, including strategic analysis and ensuring that 10 essential public health services are provided;
- inclusive and accountable partnerships.

The Healthy Communities movement, well described in a number of articles in a recent issue of *Public Health Reports* (2000), also focuses on the broad definition of health and the need to involve all aspects of community life. Much is happening in the private and public sectors that can give us hope that an integrated effort to implement COPC and improve the health of our communities will occur. Unfortunately, the increase in the uninsured, the rising costs of medical care, and the countervailing movement to compete rather than collaborate, to pursue profit, and to capture market share present major obstacles to accomplishing this, but sooner or later this is where we must be.

REFERENCES

Doll, R., and R. Peto. 1981. *The Causes of Cancer: Quantitative Estimates of Avoidable Risks of Cancer in the United States Today.* New York: Oxford University Press.

Geiger, H. Jack. 1983. "The Meaning of Community Oriented Primary Care in the American Context." In *Community Oriented Primary Care: New Directions for Health Services Delivery.* Washington, DC: National Academy Press.

Institute of Medicine. 1984. *Community Oriented Primary Care: A Practical Assessment. Report of a Study.* Washington, DC: National Academy Press.

———. 1993. Committee on Monitoring Access to Personal Health Care Services. *Access to Health Care in America.* Washington, DC: National Academy Press.

McGinnis, J. M., and W. H. Foege. 1993. "Actual Causes of Death in the United States." *Journal of the American Medical Association* 270: 2207–12.

Mullan, F. 1987. "COPC and the Challenge of Public Health." In "Community-Oriented Primary Care: From Principle to Practice." US Dept. of Health and Human Services, Health Resources and Services Administration APE86-1. Washington, DC: US Government Printing Office.

National Association of County and City Health Officials (NACCHO). 2001. *MAPP Field Guide.* Washington, DC: NACCHO. See also their Web site: www.naccho.org.

Public Health Reports. 2000. Special issue on Healthy Communities. Vol. 115, Nos. 2–3.

Schauffler, Helen. 1994. "Health Promotion and Disease Prevention in Health Care Reform." *American Journal of Preventive Medicine* 10: 1–31.

US Public Health Service. 2000. *Healthy People 2010: Understanding and Improving Health.* 2d ed. Washington, DC: US Government Printing Office.

World Health Organization. 1986. "Ottawa Charter for Health Promotion." International Conference on Health Promotion: The Move towards a New Public Health. Ottawa, Ontario, Canada: World Health Organization, Nov. 17–21.

12

The Mayo Clinic's Origins and Contemporary Status as a Community-Based Health Care Model

Philip T. Hagen, Joan M. Altekruse, and Robert R. Orford

Although it is one of the most prestigious academic medical centers in the world, the Mayo Clinic has had, since its founding, a strong commitment to its local community. An early data system allowed the Clinic to collect population-based data from the community. These data were (and are) used to establish local priorities for public health and to develop community-based programs that corresponded to these priorities. The residency in preventive medicine elevated the status of population- and community-based health care, which in many other settings is seen as a lower-priority medical specialty. The tradition of community focus and the blending of population-based care, training, and research with individual patient care have helped the Mayo Clinic maintain a community-based health care model for the residents of Olmsted County, Minnesota.

—*Gail Price*

A comparison of the history of the Mayo Clinic in Rochester, Minnesota, and that of start-up community-based health care (CBHC) centers, particularly those in developing countries, reveals clear similarities. Resemblances are noted in both the mission and operation of the Mayo Clinic, both in the past and today. The Mayo Clinic has provided and continues to provide care responsive both to the health needs of individuals and of the community, Olmsted County, that surrounds it.

There are also differences between the Mayo story and CBHC programs. The scope of clinical procedures, the large number of staff, and the extensive research and educational programs at Mayo today contrast with the conventional image of a CBHC program. Yet the development of the Mayo Clinic demonstrates that community-oriented values and behaviors can survive in a large and complex academic medical center if it maintains principles and practices consistent with its founding mandate.

THE MAYO CLINIC'S MISSION

Community-oriented care was part of the vision of the founders of the Mayo Clinic, Drs. William J. and Charles H. Mayo. They advocated two complementary objectives:

1. to provide, through coordinated expertise, health care for a defined population;
2. to collect, interpret, and report data to measure community health status and to develop concomitant programs that respond to the priorities of those served.

Succinctly, the mission is to "Heal the Sick and Advance the Science."

A DISPERSED ORGANIZATIONAL STRUCTURE

Various standards have been devised to define CBHC activities (see chapters 11 and 15). Because of the size and diversity of the Mayo Clinic practice, the components of a CBHC program, while present, are not immediately visible. The CBHC is functionally embedded within the parent institution in discrete sites and programs, such as the Division of Preventive and Occupational Medicine. These sites and programs coordinate their efforts with those of partners in the community, such as the Olmsted County Health Department.

In addition to providing consultation, planning, and physician staff for the public health department, Mayo supports community action initiatives, coordinates volunteer care for the uninsured (including primary care and tertiary care), gathers comprehensive data on community health, and conducts research. Participatory teaching/learning programs are associated with each of these components. Because of the historical growth and development of the Mayo Clinic and the Olmsted County community, the Clinic and the community have a symbiotic relationship. The interreliance of the community and the academic health care system reinforces the incentive to develop new programs that benefit the community.

MEETING STANDARDS

Nevertheless, any particular example of CBHC in action must be held to and measured according to the conceptual framework that defines organizations in its category. The core components of CBHC programs are:

- **Purpose.** The central objective is to improve the health of a designated population and its members through access to essential health services encompassing both preventive and remedial care.
- **Defined community.** The participating population is specified by ecological, demographic, and epidemiologic characteristics, or other classifying factors.

- **Data-based formulation.** Community data are collected and analyzed to support planning, monitoring, and evaluation of the effectiveness of the program.
- **Community input into program design.** Community input and data describing morbidity, mortality, health behaviors, and management practices are used to determine needs, plan interventions, and measure impact and satisfaction.
- **Community partnerships.** Collaborative individual and institutional coalitions extend and/or complement community health programs. This includes collaborative activities in social services sectors, economic development, education, and recreation.
- **Evaluation.** Qualitative and quantitative measures of health status, user evaluations of programs, and suggested changes to respond to perceived needs are examined. Operational processes and efficacy in financial and technical performance, organization, service delivery, and, if pertinent, research projects, are evaluated and reports are produced.
- **Leadership education.** CBHC programs in academic health centers in particular must recognize the need for and support academic programs in medical schools and schools of public health to train staff and develop leaders with expertise in the care of communities.

HISTORICAL PERSPECTIVE

The origins of the Mayo Clinic are intriguingly similar to those of CBHC projects of more recent decades. The population focus and community bond at Mayo began with Dr. William Worrall Mayo, who began his medical training in Glasgow. When he moved to the United States, the country was embroiled in the Civil War. He was nevertheless able to complete his training, graduating from Indiana Medical College in 1850. Answering a call to examine military recruits, he was posted to southern Minnesota. He respected and accommodated local cultural standards and habits, and he quickly achieved successful social integration. He also recognized that medical care in the area was insufficient and opened a solo general medical practice in Rochester in

1864. In 1883, after a devastating tornado, the Sisters of St. Francis approached him with an offer to build and staff a hospital, if he would provide doctors for it. He accepted, and a 27-bed hospital, Saint Marys, was built to serve the community.

GROUP PRACTICE AND INDIVIDUAL PATIENT CARE POPULATIONS

Dr. W. W. Mayo and his sons, Drs. William J. and Charles H. Mayo, were blessed with energy, curiosity, and the professional habit of recording demographic and clinical observations. They traveled internationally, researching the best medical practices of the day, and they started the first multidisciplinary group practice in the world. An early innovation of this group was to combine multiple clinical specialties, laboratories, workshops, a library, editorial services, and a business office under one roof. As Dr. W. J. Mayo said, they believe in "uniting for the good of the patient."

In 1901, a young physician and innovator, Dr. Henry Plummer, joined the group practice. He recognized the importance of research based on clinical records. He developed a "unit record," which contained all inpatient and outpatient records of histories, examinations, and test results and findings for a patient. He also started a system of cross-tabulated lists of diagnoses, operations, physicians, and patients. By combining the unit records and cross-tabulated lists, he created the framework for detailed population-based epidemiologic studies of diseases in the community.

MERGING MEDICAL AND PUBLIC HEALTH ROLES

Formal links between the Mayo Clinic and the community were forged when Dr. Charles Mayo was asked to be the first public health officer for Olmsted County. This brought into focus the need to know what diseases affected the community and in what ways, and the necessity of understanding how best to meet those challenges. Dr. Joseph Berkson refined Mayo's data system in the 1930s to help address these two needs. His first innovation was a standardized nomenclature of disease, while the second was automated cataloging of data using keypunch cards.

In 1950, Dr. Leonard Kurland, a neurologist trained in public health, recognized the unique advantages of the Clinic's long history of interaction with the Olmsted County community:

- Defined, stable population
- Limited provider group (two medical practices)
- Good, established relationships with the community
- Longstanding diagnostic database
- Unit medical records
- Ability for longitudinal follow-up

In 1966, the Rochester Epidemiologic Project was started with funding from the National Institute of General Medical Sciences to study community trends in disease incidence.

COMMUNITY-BASED DISEASE PROFILES

Because Mayo's diagnostic records and pathology specimens dating back to the early 1900s were catalogued, it was relatively easy to study community trends in disease incidence, and the natural history of diseases. Through ongoing grant funding from the federal government, the Rochester Epidemiologic Project has evolved to embrace the rapid growth of the population in recent decades and the evolution of the unit record to an electronic medical record. A unique data-gathering tool called Patient Provided Information, developed by Philip Hagen and colleagues, has enabled the community database to combine data on patients' symptoms and behavior with the existing diagnostic and pathologic data. To date, more than 1,200 scientific papers have been published from the Rochester Epidemiologic Project. These articles include descriptive, case-control, and cohort studies on the epidemiology of stroke, transient ischemic attack, dementia, heart disease, cancer, Alzheimer's disease and other neurologic disorders, diabetes, digestive disease, osteoporosis, and arthritis. No other resource in the world exists for studying secular trends of these diseases over as many decades in such a clearly defined population. The comprehensive structure of the data has allowed on-demand queries to rapidly answer clinical questions such as whether breast implants cause rheumatologic disorders. Long-term studies have helped define the natural history and impact of treatments on prevalent high-impact conditions like osteoporosis.

DATA TRANSLATED INTO COMMUNITY ACTION

Disease and practice data are continuously used to improve the delivery of health services in the community. Mechanical innovations, such as pneumatic tubes to speed unit records around the medical center, evolved into motorized underground vehicles connecting clinics, hospitals, and laboratories, and supporting the efficient collection and distribution of medical data. With the advent of the electronic medical record, even greater efficiencies are being realized today. Specialized treatments have been developed, ranging from surgical procedures on patients with goiters (common in the community before iodized salt was introduced) to the development in 1950 of a potent new drug, cortisone, to treat rheumatoid arthritis. The health needs of the community have been recognized and population measures developed, ranging from sanitation in the 1930s to community-oriented reduction of cardiovascular disease in the 2000s through "CardioVision 2020."

EDUCATION AND TRAINING

The Mayo brothers established a tradition of practice, education, and research, which have come to be known as the three shields of Mayo. They established one of the first formal graduate training programs for physicians. The focus of much of this training has been highly specialized care. However, trainees also learn and provide care daily in the community in nursing homes, schools, Salvation Army clinics, and the county health department. Dr. Julie Abbott, a member of the Division of Preventive Medicine, continues the tradition of Dr. Charles Mayo, who served as the county health officer from 1912 to 1937. Preventive medicine fellows provide care in the community through home-based visits with county health nurses, sexually transmitted disease clinics, and immigrant clinics. In 2000, Dr. Abbott worked with Clinic and county data to create a "Community Health Report Card for Olmsted County." The Report Card uses the structure of the Healthy People

2010 goals to analyze and report on the health status of county residents, present information for policy development to improve the population's health, and provide benchmarks to measure progress.

Principles of population-based medicine have been taught and explored at Mayo through the work of Dr. Kurland and his colleagues in the Epidemiology Department. Although the blending of principles of population-based care and individual patient care was born of the Mayo brothers' devotion to the community, formal programs to teach these principles did not begin until Dr. Bruce E. Douglass began the Division of Preventive Medicine at Mayo Clinic in 1963. Now called the Division of Preventive and Occupational Medicine, it employs 20 physicians board certified in internal medicine, family medicine, preventive medicine, public health, aerospace medicine, and occupational medicine. Faculty have worked to define the qualities of specialists in population health and the skills necessary to care for a community and its members.

The early design of the Clinic as a collegial practice that integrates multiple specialties has been effectively applied to the training of specialists in prevention. Preventive medicine fellows rotate through diverse areas, for example:

- specialized medical areas, such as the Breast or Metabolic Bone Clinic and the Preventive Services Clinic;
- the Olmsted County Public Health Department;
- Detention Center clinics;
- treatment facilities for chemical dependency;
- the Health Information Division (where trainees learn how to effectively deliver health information to populations through print, media, and the Internet);
- the Continuous Improvement Office (which shares information about major initiatives and successes, and encourages engagement in continuous improvement activities).

The tradition of effective writing and communication was started at Mayo in 1907, when Maud Mellish (later Maud Mellish Wilson) was hired as librarian. She became the first editor in the Section of Publications. This section continues to support the publication of Mayo research studies. This tradition of communication to a professional audience has grown to encompass a full spectrum of communications to adults and children in the community.

ECONOMIC AND COMMUNITY INTERDEPENDENCE

For a practice to remain viable and support research and educational efforts, it must be financially sound. Mayo's business success was built on expertise from the community. Harry Harwick, who joined the Clinic from the Rochester business community in the early 1900s, designed a business office integrated into the Clinic practice. The financial stability and solidarity of the institution and the community remain tightly entwined. This interdependence is fostered by the fact that the Clinic is the largest single employer of Rochester citizens: the Clinic employs approximately 25% of the local workforce. The Clinic's presence has a positive impact not only on the health of community members but also on the health of the local economy, because many patients come from around the world to this relatively small community of 100,000 people.

The Mayo brothers created the nonprofit Foundation for Medical Education and Research before they retired so that there was no personal gain to individuals from clinical activities beyond their established salary limits and no financial gain to the Clinic beyond what is needed to sustain the practice. All revenues support foundation activities and thus are largely returned to the community.

PREPARING FUTURE PHYSICIAN-LEADERS FOR POPULATION MEDICINE

The preparation of medical personnel to become leaders for the future development of CBHC practice models is demanding, as is the process for entry into a medical specialty. The first requirement is a deep personal and professional commitment to community service. Medical professionals must attain a high order of technical skills in preventive medicine, public health, and population medicine, including an understanding of epidemiology, information sciences, institutional and program management, and sociology applied to communities. And future leaders must have experiential learning in CBHC, preferably with a mentor steeped in community health practice. In this way, trainees can assimilate the traits, perspectives, and skills associated with effective performance.

Although the original medical staff of the Mayo Clinic did not undergo this rigorous program in CBHC, they combined their talents and experience to create innovative programs in clinical medicine, education, and research. Today, the training program in preventive medicine produces residents well prepared to satisfy the credentials required by the American Board of Preventive Medicine. The Mayo Graduate School of Medicine will continue to prepare graduates who bring to their communities the principles expressed in the enduring Mayo mission of community-oriented care, and to extend this mission and practice through Mayo's other practices in Scottsdale, Arizona, and Jacksonville, Florida.

THE APPLICATION OF PRINCIPLES OF COMMUNITY-BASED HEALTH CARE

This book identifies strategies for enhancing interactions between communities and health care providers. Although many CBHC programs, international and domestic, use these strategies, their common applicability does not imply that normative practices are or should be prescribed. Instead, the intent is to respond to locally identified needs, using such methods as:

- engaging a competent staff committed to community-responsive care;
- ensuring patient and community participation in programming and coalition building;
- developing and implementing management objectives and practices designed for stability, but open to innovation;
- using local epidemiologic and demographic data for evaluation and programming;
- expanding best practices from successful experiences to other communities;
- preparing future leaders for the practice of population medicine.

Each of these principles has been and continues to be pursued by the Mayo Clinic, which continues in its visionary development of community-based and -oriented programs. Mayo offers a model that can be adapted and adopted by other academic health centers. As a validated approach to improving community health, it also warrants consideration as a model for the design of larger health care systems in the United States and elsewhere.

At the opening of the Mayo Medical School in 1972, the Founding Dean, Raymond D. Pruitt, articulated the mission of the new school. He remarked that the mission included dedication "to . . . a revolution in academic spirit uniting faculty and students alike [who] cherish an imperative for the humane in an age made rich by technology and service." He called for "the yardstick of the humane" to measure the benefits of science. That imperative is apt for considering what CBHC models bring to the health of individuals and communities.

ACKNOWLEDGMENTS

The authors would like to acknowledge the assistance of Mr. Andrew Lucas of the History of Medicine Library (Mayo Foundation, Rochester), Dr. David R. Sanderson, Emeritus Staff (Mayo Clinic, Scottsdale), and Ms. Sara Howen, Division of Preventive Medicine (Mayo Clinic, Rochester).

RESOURCES

Braasch, William F. 1969. *Early Days in the Mayo Clinic.* Springfield, IL: C.C. Thomas.

Clapesattle, Helen. 1989. *The Doctors Mayo.* 3d ed. Rochester, MN: Mayo Foundation for Medical Education & Research.

Mayo Clinic & Foundation. 2001. Web sites: www.mayoclinic.com and www.mayo.edu.

Nagel, Gunther W. 1966. *The Mayo Legacy.* Springfield, IL: C.C. Thomas.

Nelson, Clark W. 1990. *Mayo Roots: Profiling the Origins of the Mayo Clinic.* Rochester, MN: Mayo Foundation.

Wilder, Lucy. 1941. *The Mayo Clinic.* 4th ed. New York: Harcourt, Brace.

13

Blending Community-Oriented Primary Care and Managed Care to Create Community-Based Health Solutions

Paul Boumbulian, S. Sue Pickens, Samuel Ross, and Ron J. Anderson

---

Involving community members in decision-making is essential in any successful community-based health care program, but there is too much diversity in any community for residents to speak with a unified voice. Only the stronger, more articulate voices typically influence decisions. Health care institutions must therefore determine how and from whom community input will be sought. It is important to differentiate between community control and community input. Institutions must be honest about whether there will be a real sharing of decision-making or simply an opportunity for communities to air their opinions, especially when the allocation of resources is involved. Sharing decision-making power is appropriate some but not all of the time. Parkland Memorial Hospital appears to have created community partnerships that are advantageous to community members, as evidenced by a significant increase in utilization of services.

—*Gail Price*

Parkland Memorial Hospital is one of the nation's largest and busiest public hospital and health systems. It has been serving the citizens of Dallas County for over 106 years and evolving to meet changing community needs. Since 1943, the distinguished faculty at the University of Texas Southwestern (UTSW) Medical Center at Dallas has provided house staff supervision and direct patient care at Parkland. Parkland has made significant changes in the delivery of health care over the last 20 years in response to an evolving community and medical marketplace. It now has a regional trauma facility and burn unit, a Level 3 neonatal intensive care unit, and several other highly sophisticated tertiary and quaternary services critical to the broader North Texas community.

Under Texas statute, the Dallas County Hospital District (the parent of the Parkland Health and Hospital System), which was created by local referendum, is mandated "to provide for the establishment of a hospital or hospital system to furnish medical aid and hospital care to the indigent and needy persons residing in the hospital district [Dallas County]." The hospital district can provide or purchase these services. An independent board of managers governs Parkland. However, local elected officials, the county judge, and four commissioners appoint this board. One of the responsibilities of the commissioners is to set property tax rates for the county and Dallas County Hospital District.

In the 1970s, Dallas was in the throes of a major recession brought on by the collapse of the oil and gas industry and the real estate market. The recession had two significant impacts on Parkland. First, it increased the number of individuals who sought care at Parkland. In 1987, Parkland had 41,000 admissions and nearly 15,000 births each year (representing 40% of all babies born in Dallas County). Outpatient visits have now reached nearly 1 million. The second impact of the recession was on the local tax base. Local property values declined steeply with the recession, and new construction was virtually at a standstill. Parkland was facing a dilemma. Its newly renovated and constructed facilities were at capacity the day they were opened and the recession had increased demand beyond what had been projected. Tax dollars were not readily available to support the care of the "new poor" (Anderson and Boumbulian 1995).

Given the problems with capacity and the shift from inpatient to outpatient care, Parkland decided to decentralize by making high-volume, low-cost primary care services more accessible to residents. This allowed the system to concentrate low-volume, high-cost specialty care services on the main campus. Decentralization not only made primary care health services more accessible to patients, it made it easier to promote prevention services and continuity of care. To determine which services to promote and where they should be located, Parkland performed a community assessment. The assessment was designed to identify communities that most needed public health services and basic primary care. Two panels were established to guide the development of this assessment. One was made up primarily of faculty from the medical school, and the other included community institutional providers and citizens.

Using data from the census, vital statistics, patient origin data, and provider availability studies, 64 communities within Dallas County were evaluated, and then clustered according to demographic, socioeconomic, and epidemiological variables, and the availability of primary care physicians (Bass, Anderson, and Boumbulian 1987). The eight clusters identified as needing health care services represented the diversity of Dallas County, which was primarily Anglo and African-American with a small Hispanic presence.

COMMUNITY-ORIENTED PRIMARY CARE AS A FRAMEWORK FOR DECENTRALIZATION

The assessment documented not only the need for primary care but also the health status of the residents of the communities in need. The assessment indicated that the residents of these communities had significant issues related to poor health status that could not be addressed by the provision of medical care alone. For a community-based primary care system to be viable and successful, the system had to address the causes of illness. A review of the literature revealed that the community-oriented primary care (COPC) concept addressed many of the concerns found in the communities of need (Anderson and Boumbulian 1995). The COPC concept not only brings primary care to the community but also addresses the issues of ill health. It is a blend of traditional medicine with public health, improving the health of the individual as well as improving the health status of the community.

In 1984, the Institute of Medicine released its report and case studies on COPC in the American context (Nutting and Connor 1984). The four basic components of the COPC concept—assessment, community prioritization of health issues, delivery of services, and evaluation—presented in the study were felt to be appropriate structural elements with which to establish the Parkland initiative.

In 1987, the assessment and a conceptual document were combined in a plan that was accepted and approved for implementation by the Dallas County Commissioners Court. Parkland began its decentralized COPC system with six existing clinics and one new health center. Institutions included four Youth and Family Centers, the East Dallas Health Coalition, and the Oak Cliff Clinic. The group of health care facilities is now known as the Parkland Health & Hospital System.

PARKLAND TODAY

Since the approval of the COPC program in 1987, the Dallas-Fort Worth metropolitan area, with a population of nearly 5 million people, has undergone a major demographic transformation. It has emerged from the depths of a recession to become one of the nation's major transportation and communications hubs (affectionately known as the Silicon Prairie) and has an unemployment level of less than 4%. The demographics of Dallas County have also changed dramatically. The population has grown to nearly 2.1 million in 1999. The county's Hispanic population had grown by 40% to approximately 21% of the population in 1999 (Parkland Health & Hospital System 2000).

Even with a very low unemployment rate, Dallas County has approximately 480,000 residents who live below 150% of the poverty level, which by PHHS policy qualifies them for tax-supported care. Poverty has followed the freeways and spread from the inner city and southern sections of Dallas County to the suburbs, due to the availability of inexpensive housing stock and federal housing support (Parkland Health & Hospital System 1994). In addition, one in four Texans are uninsured and between 25 and 29% of Dallas County residents are uninsured. Although they work and do not qualify for tax-supported care, they routinely depend on the Parkland system's safety net for services. The percentage of uninsured among PHHS patients is therefore twice as high as for the general population (Anderson, Pickens, and Boumbulian 1998, Texas Health and Human Services Commission 1999).

Population growth has put a strain on hospital capacity in Dallas County. Parkland is at functional capacity, and all of its intensive care units are consistently full. In fiscal year 1999, Parkland had 38,177 adult admissions, 14,416 deliveries, over 1,000 neonatal intensive care patients, 798,771 outpatient visits (on campus and in the community clinics), and 136,084 emergency department visits. The hospital's length of stay has been reduced to 4.4 days, and ambulatory surgery has nearly tripled over the last decade. PHHS handles 60% of all major trauma cases in the county and cares for roughly 60% of patients living with HIV/AIDS, at some time during their illness; too often, Parkland takes on these patients after they experience a loss of health insurance (Parkland Health & Hospital System 1999a, Anderson, Pickens, and Boumbulian 1998).

PARKLAND COMMUNITY-ORIENTED PRIMARY CARE

The Parkland COPC program consists of six elements: assessment of community needs and assets, community prioritization of health care issues, collaboration with community organizations, community health care system, evaluation, and financing. These components provide the means of achieving the goals established in the COPC health policy (Anderson and Boumbulian 1995).

Assessment of Community Needs and Assets

Over the last six years, 16 Dallas County hospitals have worked together under the auspices of the Dallas-Fort Worth Hospital Council to develop a comprehensive community health assessment. The assessment includes local data and local criteria. The data include:

- population variables such as age, ethnicity, and income;
- birth and birth-related information;
- death rate variables;
- access to primary care;
- conditions appropriate for outpatient treatment (to prevent future hospitalization);
- utilization;
- population-based survey data on behavioral risk factors and COPC service areas (Parkland Health & Hospital System 1999b).

Data from the assessment are used to inform decisions about what health issues are most important to the community.

The assessment is epidemiologically based and routinely updated. It is used as a management tool to determine the location of community health centers and focus public health outreach activities. The information also provides a basis for measuring health outcomes.

The assessment tool is also used to determine and measure the health care organization's benefit to the community. It demonstrates the organization's leadership role in improving community health status, ensures appropriate resource allocation, prevents duplication of services, and helps justify tax-exempt status and disproportionate share funding (monies given to hospitals that treat a high volume of Medicaid patients, to support the institutional infrastructure).

Community Prioritization of Health Issues

Community prioritization focuses services on the health issues of most concern to the residents of the targeted communities. Within each community, a health care leadership forum is convened. Members are drawn from the elected officials representing the community and include others who have been identified as community opinion leaders. Forums are chaired by community leaders. The assessment of the community's needs and assets is reviewed briefly at the forum. Forum members then establish the community's priorities and develop action plans for the next one to three years. Typically, community priorities are issues that have direct bearing on health status but have little to do with the medical care system. Issues include education, employment, teenage pregnancy and teenage violence, transportation, and safety (Boumbulian and Anderson 1994).

Parkland has learned from the community prioritization process that imposing solutions does not improve the health of the communities. As John McKnight, John Kretzmann, Peter Berger, and John Neuhaus have pointed out, institutions cannot empower people. Experts may have knowledge of a specific subject, but they do not have expertise in another person's life, family, or community (Kretzmann and McKnight 1993, Berger and Neuhaus 1977). To be successful in a community requires identifying the community's capacities, listening to its residents, and working with them. All communities have opinions and ideas about their problems and solutions, and they all have strengths.

Community Collaborations and Partnerships

PHHS is striving to improve the health of the community through partnerships at both the micro and macro levels. Macro-level partnerships include those with other hospitals, the religious community, associations such as the Dallas-Fort Worth Hospital Council, and coalitions of social service agencies. Partnerships at the micro level include those with neighborhood organizations and residents.

The Dallas-Fort Worth Hospital Council has undertaken one such collaborative venture. The 16-hospital partnership determined that by working together, the hospitals would be better able to affect determinants of health. Given the multitude of needs within the community, and to have a demonstrable impact, the hospitals decided to select one pressing issue identified through the assessment process. The Council's needs assessment committee established four criteria to identify which issue the hospitals should address:

- The issue had to be a significant problem in terms of morbidity, mortality, and cost;

- The issue had to be amenable to early intervention and management;
- Assets had to be available to address the problem;
- The issue had to be important to all parts of the community (businesses, schools, health care organization, etc.).

Based on these criteria, diabetes, hypertension, and high cholesterol together were selected as the first issue to be addressed. The Dallas Area Coalition to Reduce Diabetes and Heart Disease was established. This coalition is made up of representatives from all areas of the community: businesses, political organizations, hospitals, managed care facilities, school districts, restaurants, and neighborhood associations. The coalition is focusing on three interventions: an awareness campaign, a continuum of care, and an education program for primary care physicians. This education program is focusing on the needs of the highest-risk populations in the community, African-Americans and Hispanics. The program will enroll COPC physicians and others that serve the population.

Another partnership is the Dallas-Fort Worth Faith Health Partnership. This partnership brings together members of the medical and hospital communities and the representatives of different religious denominations. The primary project of this partnership has been the development and support of parish nursing initiatives. Parkland's parish nursing program is operated as part of its COPC program. Parkland currently serves 15 churches as part of this program.

The Injury Prevention Center of Greater Dallas was established as part of the community's response to a 38% increase in trauma hospitalizations from 1990 to 1991. The Center was established in 1994 and is a collaborative supported by the major hospitals, foundations, and government grants. The Center is located at PHHS and serves the community through the application of the World Health Organization Safe Communities model. This model is very similar to the COPC concept in that Center staff collaborate with the community to develop, design, and implement community-specific interventions. The Center has gained national and international recognition for its work in the Hispanic community. This community has seen appropriate use of infant car seats go from 19% to almost 70% in three years through interventions such as appropriate education, blessings of car seats by priests, strict enforcement programs, and work with faith healers. There is considerable coordination between the staffs of the Injury Prevention Center and the COPC community outreach team.

A public-private partnership with another nonprofit teaching hospital system, the Presbyterian Health System of Dallas, has been created with Parkland to establish a COPC health center in a neighborhood adjacent to Presbyterian's primary campus. This neighborhood has transitioned over the last decade from one of Dallas' "swinging singles" neighborhoods to one made up of low-income families.

Parkland's Community Health Care System

Parkland and its COPC program serve more than 300,000 individuals in Dallas County yearly. Most of the patients served are minorities. Services are provided through a system of health centers and specialty programs. Currently, there are nine COPC health centers, from which care is provided in nontraditional settings at 22 homeless shelters, 15 schools, 15 churches, and three senior citizen centers via multidisciplinary teams that are a rich mix of midlevel practitioners and primary care physicians.

The health centers are staffed by physicians who are employed by Parkland and belong to a group practice, Community Health and Medical Primary and Preventive Services, Inc. (CHAMPPS). The physicians are board eligible or board certified and have clinical faculty status at the University of Texas Southwestern Medical School. Some of the 136 full- and part-time physicians have advanced degrees in public health. Special efforts are made to match physicians ethnically to the communities served by the system; 60% of the physicians are African-American, Hispanic, or Asian, and 54% are women. Roughly half of the physicians are bilingual in Spanish and English.

The COPC health care team includes an array of other health professionals: nurse practitioners, physician assistants, nutritionists, health educators, outreach workers, translators, psychologists, and social workers. All are integral to the health care team and enhance the program's ability to respond to the health needs of the community.

The scope of primary care services includes pediatric, adolescent, adult, and geriatric medicine, as well as women's health services. Preventive outreach programs for cancer and AIDS have also been implemented. The COPC program also cooperates with existing public health programs to address immunizations, sexually transmitted diseases, disease surveillance, health education, maternal and child heath, and health maintenance examinations for public school students. Dental care is provided at five health centers. The City of Dallas Health Department provides women, infants, and children (WIC) services at COPC health centers. Maternal health and family planning services are available at a majority of COPC sites. Of the over 14,000 women who deliver babies at Parkland each year, 94% receive prenatal services through this system. As a consequence, infant mortality rates in this system are among the lowest in the nation's teaching hospitals, which tend to care for sicker patients. The gap between Anglo and African-American infant mortalities has nearly been closed by this effort (Anderson, Pickens, and Boumbulian 1998, Boumbulian and Anderson 1994).

Evaluation

Measurement of health outcomes and data on the cost of health care services are used to evaluate the effectiveness of health policy. Evaluation is based on the assumption that the delivery of preventive health care will positively influence the health status of the community and that improving a community's health status will reduce health care costs. The evaluation process tests the validity of those assumptions as well as a program's performance.

Parkland conducted a multiyear community assessment in conjunction with the University of Texas School of Public Health in Houston to determine changes in utilization and health status in the community attributable to the COPC program. This assessment comprised a telephone survey of 400 randomly selected adults and parents of 250 children within six COPC service areas, and a similar study of COPC users. Studies in 1996 and 1998 were of the randomly selected community residents. A 1997 study of COPC users showed that COPC users had significantly better access to care, significantly better diagnosis of chronic conditions, and better health care-seeking behavior.

Although the results of this assessment did not clearly show an impact on health status of community residents, the assessment demonstrated significant improvement in access for adults. The enhanced access ranged from an initial reporting of between 61% to 73% enhanced access in 1996, to a range of 69% to 74% in 1998 for the six service areas studied (Community Health Status Survey 1996 and 1998). For children, access increased from a range of 83% to 96% in 1986 to a range of 87% to 98% in 1998.

There was also a significant improvement in identification and diagnosis of chronic diseases within the service areas studied. In five of the six communities surveyed, more adults were diagnosed with diabetes between 1996 and 1998. The range of people properly diagnosed in 1996 ranged from 6.1% to 10.7% in the COPC communities. This improved to a range of 6.2% to 15.5% in 1998. Additionally, five of the six communities saw improvement in the number of people properly diagnosed with high blood pressure. In 1996, the percentage of people properly diagnosed with high blood pressure ranged from 16.6% to 30.3% in the COPC communities. This improved to a range of 19.5% to 35.6% in 1998. Between 1996 and 1998, significantly more adults were properly diagnosed in all communities for high blood cholesterol. In 1996, those properly diagnosed with high blood cholesterol ranged from 16.8% to 21.9% in the COPC communities. In 1998, this improved to 21.4% to 27.0%.

In addition to an increase in the number of people properly diagnosed with chronic conditions in the COPC communities, there was significant improvement in seat belt use for adults in five of the six communities between 1996 and 1998. Seat belt use in 1996 ranged from 69.5% to 82.3%. Likewise, there was an improvement in children's seat belt use in five of the six communities.

Three utilization studies were conducted to evaluate the effectiveness of the COPC program for COPC patients. The first study, which considered pediatrics only, was completed in 1995 and covered admissions of COPC patients and the community at large in 1993 and 1994. The results indicate that COPC pediatric patients had shorter stays (3.4 days on average) than non-COPC patients (5.4 days on average). COPC pediatric patients were four times more likely to be admitted electively or by referral than non-COPC patients. Non-COPC patients were two times more likely to be admitted through the emergency room than COPC patients. A higher percentage of COPC patients had Medicaid coverage than non-COPC patients. Non-COPC pediatric patients' total charges ($8,435 on average) were twice those of COPC patients ($4,594 on average). The differences in length of stay, admission type, expected payment source, and total charges remained statistically significant even after adjusting for age, gender, and ethnicity (Schulmeier 1995).

The second utilization study, completed in 2000, covered only adults. Its findings indicated that COPC patients admitted to Parkland had significantly lower charges than non-COPC inpatients. COPC patients admitted to Parkland were charged an average of $10,769, compared to non-COPC inpatients' average charges of $11,431. A logistic regression controlling for age, ethnicity, and sex also showed that COPC patients admitted to Parkland had significantly shorter stays ($p = .05$) (Tietz 2000).

The third utilization study, conducted in 1999, was part of a large undertaking by the Children's Medical Center of Dallas to understand the population that uses their First Care Program—a 24-hour urgent care program. One of the results of this study shows that children who had a "medical home" in a community clinic, such as a COPC center or with a private physician, had significantly fewer emergency room visits for primary care than children without a medical home (Roy 1999).

Organizations under the COPC umbrella have undertaken many specialized programs and individual projects. Most of these have their own evaluation and outcome components. An example is Healthy Start in Dallas County. Healthy Start focuses on reducing infant mortality. The Parkland program targeted two sectors of the City of Dallas, the southeastern and western areas. In 1990, the infant mortality rate in these areas was 11.9 per 1,000 live births. By 1996, the rate had dropped to 6.7 infant deaths per 1,000 live births.

Financing

With the establishment of the COPC program in 1987, the County Commissioners Court voted to fund the initial program at $2.9 million. This money was for the development of a new health center as well as its continuing operation. Furthermore, a portion of these dollars was to be used to contract with existing providers to expand their services in accordance with the COPC concept. The money was added to financial support from various grants (state and federal) used to fund a 25-year-old Children and Youth Project and two community clinics funded through philanthropic resources that were incorporated into the COPC. These community-based programs required local tax support to maintain their long-term viability. Their combined budgets approached $6 million.

The receipt of Medicaid Disproportionate Share Provider funds permitted the expansion of the program. These monies were used to create a source of multiyear funding for the COPC program by buying down Parkland's government-bond debt service, thereby allowing the tax dollars allocated to this debt service to be reallocated to COPC at a steady (nondeclining) $9.5 million level.

Currently, COPC gross patient service revenue is $50.5 million. These dollars come from three primary sources: patients who pay for their own services (13%); unfunded patients subsidized by local tax dollars, Medicare (17%), and Medicaid (18%); and nonpaying (charity) patients (50%). With the advent of Medicaid managed care, the balanced budget amendment, and tremendous growth in the number of uninsured community members, Parkland's ability to cross-subsidize the care of the poor has been sorely stressed.

To preserve its share of the Medicaid market, Parkland has used its experience as a self-insured entity to develop three products to help improve access to care for all Dallas County residents and to help Parkland continue to be financially able to provide services to residents. These products are Parkland HEALTH*plus,* a sliding-scale payment program; Parkland HEALTH*first,* a Medicaid managed care insurance product; and Parkland KIDS*first,* a children's health insurance product (CHIP).

Parkland HEALTH*plus* is a sliding-scale payment program for Parkland self-pay patients. This program is designed to foster increased patient responsibility while providing access and continuity of care. The bottom line of this program for PHHS is the better allocation of health care resources; it allows Parkland to provide more patients with quality care for the same cost.

Parkland HEALTH*plus* also serves as a crossover program for patients no longer eligible for Medicaid. Many residents of Dallas County, while earning too much money to qualify for Medicaid, still cannot afford traditional health care coverage. Rather than let this population go unserved, Parkland HEALTH*plus* allows them access to quality health care at a cost determined on a sliding scale. In 1999, over 50,000 patients were enrolled in Parkland HEALTH*plus.*

Parkland HEALTH*first*, established in 1999, is one of two Medicaid health maintenance organizations (HMOs) in Dallas County. Over 30,000 Medicaid recipients have joined Parkland HEALTH*first.* Parkland KIDS*first* is one of two CHIP managed care plans in Dallas County. Three thousand members had enrolled by the summer of 2000; by 2001, there were nearly 30,000 enrollees. Parkland HEALTH*plus*, HEALTH*first*, and KIDS*first* allow patients to keep the same doctors, medical records, benefits, and continuity of care as their coverage changes.

Parkland also has a managed care product for its employees. Over 12,000 employees and their dependents are enrolled. As a provider of health care and insurer for health care, Parkland believes in these products for its employees as well. Other public hospitals could use their employees as a beginning point for building a community-based HMO.

Having developed a COPC service delivery platform and three financing vehicles, Parkland believes that the next steps should concern the fusion of the care model and financing mechanisms. This can be accomplished through community-based HMOs.

NEXT STEPS: COMMUNITY SOLUTIONS

The next step in the evolution of COPC in the United States would be to set up community-based HMOs for service delivery. Community-based HMOs would be managed by and responsible to the community and operated on behalf of the patient and the community's health status rather than for shareholder benefit. This type of managed care organization should consider the patients', providers', and community's input into the design, operations, monitoring of costs, quality, and responsiveness of the plan. Such a plan should be dedicated to reinvesting savings from improved care delivery into prevention and enhancing the community's health status. This concept can be tailored to a wide range of settings: urban or rural communities, special populations (such as American Indian reservations), or aggregations of communities, resulting in regionalized programs. Key characteristics of community-based HMOs follow.

Key Characteristics of a Community-Based Plan

A community-based plan can be formulated many ways. It could be a community-incorporated and -owned plan; a joint venture or partnership between the community and a public- or private-sector provider; or a cooperative model. Sponsoring entities must be willing to assume risks and provide funds to capitalize the plan. Because many public hospitals already assume the risks of serving as a safety net for the uninsured, they may be important participants in the formation of such plans and help finance such models for the chance to truly manage care instead of passively accepting the role of "insurer of last resort."

- A community-based plan would deviate from the current paradigm of employer-based insurance to one based on individual or family membership.
- A community-based plan would be owned by institutions that patients rate as meaningful and of high quality, such as associations (cooperatives, small business consortiums), churches within the community, or joint ventures with nonprofit or public-provider-sponsored health plans (or systems).
- A community-based plan would provide an environment that would merge quality-in-fact (peer and professional evaluation) with quality-in-perception (patient satisfaction).
- A community-based plan would develop special programs based on community assessment and dialogue with its members or community residents. Examples include parish nursing programs, diabetes management programs, student mentoring programs, literacy programs, and training in infant stimulation to promote early childhood development.
- A community-based plan would allow participants to take an active role in their own care through a therapeutic partnership with providers. This is a patient-provider partnership that centers on educating the patient about how to be healthy and edu-

cating the provider about the cultural, social, and belief systems of the patient.

- A community-based plan would provide a medical home (a place where the member can always go and know that medical care will be available) for its members.
- A community-based plan would target its educational initiatives to specific problems identified in the assessment, communicate with the community, and provide incentives to members to achieve agreed-upon goals.
- A community-based plan would have the power to improve the health of the community. Because it would be part of the community, it would not be imposing solutions.

Elements of Community-Based Health Maintenance Organizations

Community-based plans are only one option for providing community-based services. Another option is community-based HMOs following an expanded business model, which incorporates community benefits. The elements of this model are ownership, underwriting and capitalization, governance, management, clinical services, community dividend, and accountability.

Ownership. Models of ownership of community-based HMOs can include a "cooperative," in which a membership organization of community residents pools their funds to capitalize and underwrite an insurance product; an organization of member governmental agencies that pool their health benefit funds to underwrite and capitalize a fund; or a membership organization of corporations that pool health benefit dollars to underwrite and capitalize operations. Many types of organizations may own a community-based HMO, including faith-based community services, charitable organizations, or a consortium of small businesses. These entities could establish a joint venture with a public hospital system willing to help capitalize the effort as an extension of its mandate and mission. If these entities prove to be "profitable" (that is, save money through preventive interventions or reduce overhead or expenses), these resources can be reinvested in the plan and the community, in a manner directed by the community.

Underwriting and capitalization. There are multiple means of underwriting and capitalizing a community-based HMO. Possibilities include public-private partnerships, nonprofit trusts or foundations, conversion foundations (foundations created from the sale of nonprofit or public hospitals and/or the conversion of nonprofit health plans into for-profit corporations), access assurance plans, regional rural collaborative models, prepaid voucher systems, child health insurance programs (CHIPs), or state tobacco settlements.

- **Public-private partnerships.** Underwriting and capitalization can occur through public-private partnerships in which one large community corporation or a pool of corporations (such as all the telecommunication corporations in a community or all the nonprofit or public hospitals in a community) underwrite and capitalize a community-based HMO. They do this by using existing community assets for the delivery of care to a specific geographic location or specific low-income population. Another type of pooled effort is the creation of an insurance product (managed care organization) by small businesses, social service agencies, businesses in the service industry, or churches.
- **Nonprofit trusts.** Underwriting and capitalization can occur through nonprofit trusts or through the organization of private community or corporate donations.
- **Access assurance plan.** Underwriting and capitalization can occur through an access assurance plan or prepayment plan such as Parkland HEALTH*plus*.
- **Regional collaborative.** Underwriting and capitalization can occur in rural areas through a regional collaborative HMO model. A competitive model does not work well in rural areas due to a lack of providers. Small rural communities could work with each other to establish a 501(c)(3) nonprofit cooperative to provide, purchase, or arrange care locally and regionally at the level of the area's capability and capacity. It would be necessary to overcome state insurance commissions' concerns about undercapitalization for self-insured products, multiple employer welfare arrangements, or other federally created insurance products.

- **Prepaid voucher system.** Underwriting and capitalization can occur through a prepaid voucher system. This type of system provides a defined service with a portion paid by the employer, a portion paid by the employee, and a portion possibly absorbed by the provider using a sliding scale if all employees are covered.
- **Funding from disproportionate share funds.** Underwriting and capitalization can occur through partial funding from disproportionate share funds.
- **State tobacco settlements.** Underwriting and capitalization can occur through state tobacco settlements. They can be administered as block grants to communities to create and sustain community-based managed care.
- **State Child Health Insurance Program.** Underwriting and capitalization can occur in part through the state funding of the State Child Health Insurance Program, Title XXI of the Social Security Act. Title XXI incorporates an entitlement for states that meet the statutory requirements. States can expand Medicaid, buy private coverage, or use some combination of these methods (Budetti 1998).

Governance. Ideally, the governance structure of these organizations would blend the expertise of community residents with the expertise of health system professionals. Functions such as benefit administration could be contracted out to lower overhead costs. The governing body may be established in various ways to be adaptable to community circumstances. For example, the governing body could be formed as a separate governance structure from the sponsoring entities or a subsidiary board of a publicly sponsored entity, or the governing body could be elected from the membership or appointed by a governmental body with the advice and consent of the sponsoring institutions. The governance structure should promote accountability with regard to costs, access, quality, and member satisfaction.

Management. A community-based HMO must be professionally managed. The managed care organization might establish its own management structure or it might be managed through a joint venture with traditional providers such as hospitals, community health centers, or rural health clinics. Science tells us that communities are complex adaptive systems. Dee Hock (1999), in his book *Birth of the Chaordic Age*, summarizes the nature of complex adaptive systems as follows:

> Complex connectivity allows spontaneous order to arise and when it does, characteristics emerge that cannot be explained by knowledge of the parts. Nor does such order seem to obey linear laws of cause and effect. Scientists speculate that all complex, adaptive systems exist on the edge of chaos with just enough self-organization to create the cognitive patterns we refer to as order.

The organic nature of a community-based HMO allows for the application of organic forms of management, such as the evolving science of complex adaptive systems. The study of such systems teaches that there is a tipping factor. The tipping factor refers to small but vital changes (for example, reducing the infant mortality rate in one discrete area of a community). Multiple small changes result in large systemic changes (Zimmerman, Lindberg, and Plsek 1998).

Clinical services. A community-based HMO must have access to the full continuum of services regardless of who provides those services. This continuum may include services that are beyond the traditional medical model, including traditional public health services. Initially, and periodically thereafter, the community should conduct an assessment to determine the scope of services the HMO should provide and the priorities among these services. Periodically, the plan will assess the community to determine the priorities among the services provided. This should facilitate setting deductibles and copayments.

Community dividend. Unique to a community-owned HMO is the allocation of dividends. If the plan has excess revenues, some of the excess may be put into reserves and the remainder could be used to address predetermined community needs and social determinants of disease.

Accountability. Community-based HMOs should maximize trust between providers and members. If decisions that result in access barriers or rationing are made, they should be clearly explained, and the community should be informed of the rationale involved in the decision (Anderson et al. 1998).

Accountability also means being accountable to the community (including health providers) for the results and outcomes of the care delivered. An approach known as Measurably Enhancing the Status of Health (MESH) can be used by an organization to measure accountability. The aims of this approach are to contribute to overall health surveillance efforts of the community, provide indicators of measurable improvement over time, and provide information for targeting and prioritizing future interventions. MESH can also be a vehicle for quality improvement and outcomes within hospitals and health plans. MESH would be the vehicle by which quality-in-fact (peer and professional evaluation) and quality-in-perception (patient satisfaction) could be merged (Young, Laskowski, and Sussman 1998).

CONCLUSION

Being responsive to the community means caring for the health of a population beyond the traditional approach. There are many options to provide community-based managed care. Each of these concepts approaches the financing and provision of care differently, but they have many common elements. These elements distinguish the community-based HMO from other managed care organizations, which are either corporate-owned and responsible to the shareholder (not the community) or responsible only to their own enrolled population. The model or principles are important, but it must be emphasized that these vehicles are adaptable and can be customized to community needs, strengths, and values.

Attention to the values and needs of the community is the touchstone of community-based HMOs. The foundations of the community-based HMO and the COPC concepts are consistent. Assessment and outcomes measures provide the context to develop the scope of services. By integrating quantitative data and cultural distinctions, community-based managed care organizations can deliver services tailored to a particular community. Community-based HMOs can appropriate money or rebate savings into community reinvestment plans. Reinvesting underscores the priority of the community-based health plan: to optimize the health of community residents. It provides an opportunity to continually reinforce a sense of community and acknowledge the spirit, power, and resilience of people working together on a common issue.

REFERENCES

Anderson, Ron J., and Paul J. Boumbulian. 1995. *Comprehensive Community Health Programs: A New Look at an Old Approach.* Washington, DC: Association of Academic Health Centers in a Managed Care Environment, pp. 119–35.

Anderson, Ron J., Sue Pickens, and Paul J. Boumbulian. 1998. "Toward a New Urban Health Model: Moving Beyond the Safety Net to Save the Safety Net—Resetting Priorities for Healthy Communities." *Journal of Urban Health.* 75: 367–78.

Anderson, Ron J., et al. 1998. *Beyond Managed Care: Community Based HMOs.* The James MacGregor Burns Academy of Leadership, University of Maryland, Leadership and Public Policy Series Paper Number 8. Available at www.academy.umd.edu/scholarship/DLS/WorkingPapers/Anderson.pdf.

Bass, P., Ron J. Anderson, and Paul J. Boumbulian. 1987. *Community-Oriented Primary Care: A Plan for Dallas County.* Dallas, TX: Parkland Memorial Hospital.

Berger, Peter L., and Richard J. Neuhaus. 1977. *To Empower People: The Role of Mediating Structures in Public Policy.* Washington, DC: American Enterprise Institute.

Boumbulian, Paul J., and Ron J. Anderson. 1994. "Survival through Community Services: From Sick Care to Health Care." *Health Management Quarterly* 16: 17–23.

Budetti, Peter P. 1998. "Health Insurance for Children: A Model for Incremental Health Reform?" *New England Journal of Medicine* 338: 541–42.

Community Health Status Survey. 1996 and 1998. Professional Research Consultants (Omaha, NE). Dallas, TX: Parkland Health & Hospital System.

Hock, Dee. 1999. *Birth of the Chaordic Age.* San Francisco, CA: Berrett-Koehler, p. 27.

Kretzmann, John P., and John L. McKnight. 1993. *Building Communities from the Inside Out: A Path toward Finding and Mobilizing Community Assets.* Evanston, IL: Northwestern University.

Nutting, P. A., and E. M. Connor. 1984. *Community-Oriented Primary Care: A Practical Assessment.* Washington, DC: National Academy of Science Press.

Parkland Health & Hospital System. 1994. *The Health of Dallas County: A Management Tool.* Dallas, TX: Parkland Health & Hospital System.

———. 1999a. *Annual Report.* Dallas, TX: Parkland Health & Hospital System.

———. 1999b. *1999 Dallas County Health Checkup.* Dallas, TX: Parkland Health & Hospital System. Available at: www.dfwhc.org/dcna.htm

———. 2000. *2000 Dallas County Health Checkup.* Dallas, TX: Parkland Health & Hospital System. Available at www.dfwhc.org/dcna.htm.

Roy, Lonnie. 1999. "Dallas Area Healthcare Use: Study of Insured, Uninsured and Medicaid Enrolled Children." PhD diss., University of North Texas, Dallas.

Schulmeier, Greg. 1995. *An Analysis of Parkland Health and Hospital System's Community-Oriented Primary Care Program.* Dallas, TX: Parkland Health & Hospital System.

Texas Health and Human Services Commission. 1999. "Projected 1999 Texas Estimates of the Texas Population without Insurance in 1999 by County." www.hhsc.state.tx.us.

Tietz, Michelle. 2000. Study and Analysis. Parkland Health & Hospital System, Strategic Planning Department.

Young, Mark J., Robert J. Laskowski, and Elliot J. Sussman. 1998. "How a Community Teaching Hospital Is Changing to Better Serve Its Community." *Academic Medicine* 73: 488–93.

Zimmerman, B., Curt Lindberg, and Paul Plsek. 1998. *Edgeware: Insights from Complexity Science for Health Care Leaders.* Irving, TX: VHA, Inc.

14 A Case Management Approach to HIV/AIDS Prevention and Care in Boston

Rebecca Marshall, Heidi Louise Behforouz, Ashok Reddy, and Jim Yong Kim

---

AIDS presents an unprecedented challenge to health systems in poor communities. Community-based care using community members with specialized training is an extremely promising model for confronting that challenge. Lessons about the effectiveness of a community-based approach stretch across socioeconomic, cultural and political boundaries, as Partners in Health has demonstrated from Haiti to Peru, from inner-city Boston to inside Russian prisons.

> Every one of us is now living in the time of AIDS. The global pandemic has surpassed the Black Plague in number of deaths and qualifies as the most disastrous epidemic in history. How we, as inhabitants of this planet, respond to this epidemic will, quite simply, define our generation.
>
> *—Jon Rohde and Jim Yong Kim*

Forty million people in the world are now living with AIDS; 5 million of these were infected this past year. Of the 5 million new infections, more than 95% occurred in developing countries. In parts of sub-Saharan Africa, some villages have lost almost all of their working adult population, leaving only children and senior citizens to perform all the functions necessary for survival.

Among the poorest populations that are being devastated by HIV, the prevention of further infections is clearly the top priority. Yet without access to treatment for AIDS sufferers, sub-Saharan Africa and other regions with explosive epidemics, such as India and China, will soon undergo fundamental demographic shifts that will threaten the stability of villages, nation-states, and perhaps even whole continents.

Partners in Health has effectively used community-based approaches to caring for people living with HIV/AIDS and other illnesses such as multidrug-resistant tuberculosis in rural Haiti, inner-city Boston, Mexico, and the slums of Lima, Peru. Our community-based model of care does not represent a compromise made out of desperation or simple lack of funds. Rather, we have found that efficient, compassionate, and culturally and linguistically appropriate programs that utilize community-based health promoters can yield outcomes that rival and even surpass those seen in more affluent settings. Community-based care for poor people in poor communities does not have to be a compromise. In Haiti, for example, where we run a program in which highly active antiretroviral therapy (HAART) is delivered by community health workers to rural peasants living with HIV, the viral loads of 88% of the first 40 patients tested were undetectable. These results surpass those reported from many clinical trials in the United States.

THE CHALLENGE OF AIDS CARE IN BOSTON

Few cities in the United States better illustrate the inequities in health care between rich and poor than Boston. In a city containing one of the highest concentrations of physicians in the country (Stark and Jahnke 1992, Massachusetts Division of Health Care Finance 2000) and some of the best hospitals in the world, many of Boston's poor have little or no access to basic health services.

The failure of the Boston public health system to effectively and equitably reach the diverse communities throughout the city is particularly evident in the area of HIV/AIDS. As reported in the 2001 "Health of Boston" study commissioned by the Boston Department of Public Health, the HIV rate among Hispanic residents is 46.1% higher than the rate of the Boston population as a whole. Among Black residents, the HIV rate is 43.0% higher than the rate of the population as a whole—and, incredibly, the AIDS mortality rate among this same group is 72.4% higher than the Boston rate (Boston Public Health Commission 2001).

Working with HIV-positive individuals in the city's poorest communities presents particular challenges. The populations most at risk of contracting AIDS tend to be already marginalized: substance users, the mentally ill, men who have sex with men, women who are commercial sex workers. Accordingly, HIV-positive individuals in very poor communities are often the most vulnerable of any individuals in society. In addition, problems that frequently accompany the disease, such as stigmatization and depression, may increase individuals' feelings of isolation and hopelessness and further discourage them from seeking help (Behforouz et al. 2001).

The HIV Prevention and Access to Care and Treatment (PACT) Project in Boston provides an important model of a case-based approach to reaching HIV-positive populations in poor communities. PACT recognizes that the health of HIV-positive individuals depends not only on their medical condition, but on a range of factors related to their economic status, social environment, and emotional well-being. As a result, the project seeks to help clients address critical issues in their lives—ranging from housing instability to substance use to unemployment—which make dealing with their disease additionally difficult. In the process of resolving these problems, individuals learn how to make and sustain connections with the resources they need to stay healthy.

THE PACT PROJECT

Roxbury, the third largest neighborhood in Boston, is also one of the city's poorest neighborhoods and has some of its worst health indicators. Over 50% of its population lives below the poverty line, as compared to 20% in Boston at large. Not surprisingly, the AIDS mortality rate for persons aged 25–64 is almost double the rate of greater Boston (Boston Public Health Commission 1997).

In 1997, Heidi Behforouz, a senior medical resident at the Brigham and Women's Hospital in Boston, began working with a Roxbury-based community organization called Soldiers of Health. Run by community health workers, Soldiers of Health (recently renamed Partners in Health-Roxbury) focuses on health education, prevention, and social services for poor and marginalized populations in the Roxbury area. It is supported by Partners in Health, an internationally acclaimed Boston-based organization that works in poor communities in several countries.

While working with Soldiers and Partners, Behforouz became concerned about the number of clients with HIV. She was further concerned by statistics suggesting that the incidence of AIDS was rising among poor, inner-city young women and that the AIDS mortality rate in African-American women in Roxbury was 3.5 times greater than that of women in Boston as a whole. These growing concerns prompted Behforouz and colleagues at Soldiers and Partners to apply for a grant to test a model of community-based care in the context of HIV/AIDS. They were awarded a three-year grant from the Office of Minority Health, a federal office under the Department of Health and Human Services that has since been disbanded. The resulting project—PACT—was designed to apply a case-based approach to working with HIV/AIDS patients, to assess the potential of this model for scaling up in the future. While Soldiers had applied a community-health worker model to dealing with general health, it was not clear how successfully this model could be applied to HIV/AIDS care, given the complicating social and medical factors surrounding the disease (PACT 1997).

After three years of operation, PACT has shown that a case-based approach to dealing with HIV/AIDS *can* be highly effective. With five full-time case managers, a physician, and a handful of part-time medical students, the project has over 90 clients with a range of different needs relating to their HIV status. Many of the clients who were completely disengaged from the health care system when first beginning to work with PACT are now connected to needed health services, educated about the prevention and treatment of their disease, and engaged in maintaining and improving their own health.

Each client begins a relationship with PACT by meeting with a case manager. At this meeting, the client and case manager together fill out and sign three forms: an intake assessment form, a needs planning form, and a confidentiality form. This confidentiality form, in particular, is an essential feature of the relationship between the case manager and the client due to the still-prevalent stigma surrounding the disease. Once clients have identified their critical needs, case managers work with them using a step-by-step approach that includes clients in making decisions and in navigating medical and social service systems.

Depending on the client's needs, the case manager contacts him or her on a daily, biweekly, or weekly basis. Some clients need a case manager to help arrange social services, such as having meals delivered or finding a treatment program for substance use. Other clients need a case manager to accompany them to medical appointments, interpret medical terminology, or translate into their primary language. Still others need a case manager to help them with adherence to drug regimens, which often involve taking numerous pills at different times of the day or have unpleasant side effects that make compliance difficult.

The effectiveness of the PACT model can be attributed to one critical element: the case manager. The cases PACT encounters often involve multiple layers of problems—racial discrimination, poverty, unemployment, substance use, sexual assault, abuse, and incarceration, in addition to the financial and emotional burden of AIDS. Peeling away these layers—a critical step in helping the client improve his or her health—requires the case manager to spend a tremendous amount of time with the client, to build trust and come to an understanding of the source of many of these problems. Since most of the case workers are from the client's community, they understand the client's problems and the issues involved with being poor and marginalized. Once trained in case management, they are well equipped to help clients identify their problems, encourage harm reduction and education, and help clients obtain the care they need.

In comparison, many conventional HIV/AIDS programs have been based on an adherence support center: a free-standing adherence clinic to which patients come for medication and therapy. Often these clinics employ outreach workers to contact patients who do not appear as scheduled for their medications. Unfortunately, however, many of these workers have little training or experience in case management; they often fail to address the underlying issues leading to nonadherence, and the patients are lost to follow-up and appropriate treatment.

THE FUTURE OF THE PACT PROJECT

In the future, PACT hopes to implement a method of temporary intensive intervention: directly observed therapy, or DOT. Partners in Health pioneered the use of DOT in the delivery of antiretroviral therapy through a collaboration with its sister organization in rural Haiti. The initiative, called DOT-HAART (DOT with highly active antiretroviral therapy), has yielded surprisingly good results despite being carried out in an extremely impoverished setting (Farmer et al. 2001).

Since DOT in industrialized countries is much more expensive, it will be a last-resort option for consistently noncompliant clients. PACT will intake patients identified by providers as having problems, enroll them in regular case management, and work with them to ensure that they attend their scheduled follow-up visits. A client who repeatedly fails to make these visits will then be enrolled in DOT, in which a case worker will visit the client's home several times a day to observe the client taking his or her medication. Once the client's compliance is stabilized, he or she can move back to regular case management. This process is intended to be dynamic and flexible, because a client who is adherent at one time may, for a variety of reasons, become nonadherent in another six months. A client may be served through case management for a year, be transferred to DOT for a set period, and then return to regular case management.

This approach to HIV treatment is potentially extremely cost effective in comparison to either a standard DOT approach or a clinic-based approach. To begin with, it is much less expensive to use a fluid case management/DOT approach than to maintain DOT for all clients at all times. This approach also saves costs by using community health workers rather than nurse practitioners for client visitation. And finally, in assessing costs to the health system as a whole, this presents a highly effective way to reach individuals who might otherwise fall through the cracks, ensuring that they take their medication and preventing, for example, a $100,000 admission for AIDS-induced *pneumocystis carinii* pneumonia (Behforouz et al. 2001).

Despite compelling evidence of the effectiveness of the PACT model and of the potential effectiveness of PACT's adopting a DOT component in its work, the project is in jeopardy due to lack of funding. PACT's three-year grant from the Office of Minority Health ended in December 2001. While the project has enough support from Boston's Brigham and Women's Hospital to sustain it temporarily, it does not have any long-term financial backing.

This highlights a critical problem for community-based programs in the US and other countries. Many service grants from private foundations are for such small sums of money—$3,000 to $15,000—that competing for them barely justifies the time spent writing proposals. In addition, these grants often last for such short periods—often between one to three years—that there may be barely enough time to develop the staff capacity and systems to get the project off the ground before the funding ends. Desperate for funding, organizations are forced to divert precious resources into writing multiple proposals for small, short-lived grants, rather than focusing on their mandated work. PACT, for example, has submitted eight grant proposals over the past three years.

One potential solution to this crisis could be for projects to apply for follow-on funding from the same donor, once a successful initiative has been completed. However, retaining donors' interest in and commitment to a program often requires the kind of dramatic results that may not be possible to achieve in a relatively short period of time. Thus, rather than investing in developing projects over the long term, donors often move on to fund new initiatives, which may appear to have more potential, leaving those whose funding has been cut scrambling to make up the difference or else having to discontinue their operations.

An obvious alternative to applying for foundation grants is vying for large federal grants. Applying for federal grants complicates the relationship between organizations working in the same neighborhood, whose work is complementary and who therefore have to compete for the same pots of money. In addition, for service-based organizations such as PACT, winning grants is particularly difficult because many federal grants that could offer large sums of money expect a research component that includes data collection with intervention and control groups. While collecting data can provide important evidence of a program's effectiveness, having to meet stringent donor research requirements may distract from the program's intended focus and lead to a sacrifice in service delivery. However, PACT recognizes that its access to this avenue of potential funding depends on its ability to collect sufficient data to prove that a community-based model of intensive case management is cost-effective. PACT is currently working to design studies that compare the costs of care for its clients with costs for patients of similar socioeconomic status who are not followed by a community-based case manager.

In addition to applying for grants from various donors, PACT is working to form strategic partnerships that will provide AIDS case management with a community component. The value of such partnerships should not be understated. From the time of its genesis within Soldiers of Health, PACT has benefited tremendously from its ongoing collaboration with Partners in Health; Partners has provided mentoring, financial support, and a steady supply of student volunteers from Harvard Medical School. PACT has also received funding and support from Boston's Brigham and Women's Hospital, including transitional funding through the newly established Division of Social Medicine and Health Inequalities to sustain itself temporarily. How it will sustain itself in the long run remains to be seen.

As the introduction to this book notes, "During the last decade of the 20th century . . . some communities learned to deal with the devastating threat of AIDS through education, local action, and compassion." This is indeed the approach taken by the PACT Project: working with communities to provide education, local action, and compassion, as those communities learn to deal with AIDS. The PACT model appears to be an effective one. For those who developed it, for those who have developed similar community-based models that work, and for those of us who believe in these models, the future challenge will be to find viable ways to fund them and sustain the critical work that they do.

REFERENCES

Behforouz, Heidi, Ashok Reddy, Stephanie Cohen, Mitul Kadakia, et al. 2001. Interviews by Rebecca Marshall with PACT staff members. Tape recording. Boston, MA.

Boston Public Health Commission. 1997. "The Health of Boston 1997." Boston: Office of Research, Health Assessment, and Data Systems.

———. 2001. "The Health of Boston 2001." [Cited Jan. 11, 2002.] Available from www.bphc.org.

Farmer, Paul, et al. 2001. "Community-Based Approaches to HIV Treatment in Resource-Poor Settings." *The Lancet* 358: 404–9.

Massachusetts Division of Health Care Finance and Policy. 2000. "Massachusetts Health Care Trends: 1990–1999." Boston: Massachusetts Division of Health Care Finance and Policy.

PACT (HIV Prevention and Access to Care and Treatment) Project. 1997. "Comprehensive Community-Based HIV Prevention and Treatment in Roxbury, Massachusetts: Implementation of a Program to Improve Health Outcomes." Proposal for funding.

Stark, Marg, and Art Jahnke. 1992. "Diagnosing Doctors." *Boston Magazine* 84: 62–70.

15 The Connections between Academia and the Practice of Community-Oriented Primary Care

C. William Keck

This chapter focuses on the role of local public health departments in responding to the significant failings described in the 1988 Institute of Medicine report, *The Future of Public Health*. Following that report, local health departments were given new responsibilities for assessment, policy development, and quality assurance. Some health departments are meeting these challenges through linkages with academic institutions. Many community health agencies can also increase their capacity to meet their goals through partnerships with colleges and universities.

—*Gail Price*

Adapted, with permission, from C. William Keck, "Lessons Learned from an Academic Health Department," *Journal of Public Health Management and Practice* 6: 47–52. Copyright 2000 Aspen Publishers.

In 1988, the Institute of Medicine Study Committee that had reviewed the status of the public health system in this country issued a wake-up call to the public health profession. Its report, *The Future of Public Health* (Institute of Medicine 1988), described a "system in disarray" and listed a number of disturbing findings to support that characterization:

- There was no clear, universally accepted mission for public health.
- Public health professionals had been slow to develop strategies that demonstrate the worth of their efforts to legislators and the public.
- Relationships between medicine and public health were, at best, uneasy.
- Inadequate research resources had been targeted at identifying and solving public health problems.
- Public health practice, unlike other health professions, was largely detached from its academic bases.

The response to the report by public health professionals has been substantial. Particularly heartening has been the response of our national and state public health professional organizations and a variety of federal agencies interested in improving public health services. During the past decade, these groups have collaborated in a remarkable effort to respond to the problems identified. These efforts were spurred on by the changes proposed for the US health system by the Clinton administration in the early 1990s, and by the realities of the managed care approach to health care reform. There was (and is) concern that the historically positive impact of public health measures on health status and quality of life will be underappreciated and the potential for future benefits will be overlooked in the scramble to change the mechanisms of health care delivery to cut the cost of illness care.

The result of this concern is that more attention has been paid to the status of local public health services over the past 14 years than probably at any other time in the history of the United States. The 1990s were full of activities intended to increase understanding of and bolster delivery of public health services. Public health professionals from the local, state, and national levels have come together in a variety of settings to discuss and develop consensus on public health's role and the resources required to fulfill that role. The accomplishments resulting from focusing attention on these issues have been substantial. The mission of public health has been clearly defined (Institute of Medicine 1988, US Department of Health and Human Services 1995).

Agreement has largely been reached on the three core functions of local health departments: assessment, policy development, and quality assurance (Institute of Medicine 1988). Out of the core functions has grown a list of the 10 essential services required for communities to reach their maximum potential for health (US Department of Health and Human Services 1995 and 1997):

1. Monitor health status to identify community health problems.
2. Diagnose and investigate health problems and health hazards in the community.
3. Inform, educate, and empower people about health issues.
4. Mobilize community partnerships to identify and solve health problems.
5. Develop policies and plans that support individual and community health efforts.
6. Enforce laws and regulations that protect health and ensure safety.
7. Link people to needed personal health services and ensure the provision of health care when it is otherwise unavailable.
8. Ensure a competent public health and personal health care workforce.

9. Evaluate the effectiveness, accessibility, and quality of personal and population-based health services.
10. Research innovative solutions to health problems.

Performance standards for local communities based on the 10 essential services are under development at the Centers for Disease Control and Prevention (Halverson 2000). Other accomplishments include:

- a growing consensus about the competencies health workers must have to deliver those services (US Department of Health and Human Services 1997, Sorensen and Bialek 1993);
- an initiative to bring the disciplines of medicine and public health closer together;
- a clearer focus by schools of public health on linking with practice sites (Association of Schools of Public Health 1998, Gordon et al. 1999), and expanding practice linkages with other kinds of academic institutions (Healton 1999, Blacklow et al. 1995, Seifer 1998, Gale 1998);
- initiation of work to develop a community health services guide that will identify effective programs and interventions (Chaulik and Kazandjian 1998, Public Health Foundation 1999, Zaza et al. 2000);
- ongoing efforts to define a research agenda for community health (Public Health Foundation 1999, 1998).

As exciting as it has been to observe and participate in these activities, it is also increasingly daunting for directors of local and state health departments to consider the implications of this work for their agencies. The growing consensus about the role of public health departments in ensuring conditions in which people can be healthy and developing new tools for assessing the effectiveness of interventions will create pressures for change in the structure and function of local health departments. It will also make those departments more accountable to communities and external funders.

PARTNERSHIPS

Many local health departments are too small and too resource-poor even to attempt to fulfill many of the roles now expected of them, and virtually all health departments will be challenged to redirect resources and acquire needed skills to be successful. Some will need to rethink structure and governance. All will need to pursue new resources, especially by developing partnerships with others who share elements of the public health mission.

Certainly a new driving force to form partnerships will be the community assessments spawned by the new national performance standards. The standards look not only at the capacity of the health department, but also at a community's capacity to deliver the 10 essential services. As proposed, this assessment of community capacity cannot be done without a partnership effort including most, if not all, parties with an interest in improving health. And these services most certainly cannot be delivered with high quality and in adequate quantity without effective working partnerships. I am especially hopeful that the activities associated with the national performance standards will breathe new life into the initiative to bring the separate cultures of medicine and public health closer together.

ACADEMIC CONNECTIONS

Another type of partnership available to many (but probably not all) state and local health agencies is linkages with academic institutions. The Institute of Medicine focused its recommendations on schools of public health, but there are many other academic settings where linkages would be beneficial. These would include master of public health programs offered in institutions other than schools of public health. Schools of medicine, nursing, and dentistry, and programs on health education, environmental health, counseling, and urban studies could also partner with health agencies.

Indeed, many partnerships exist between institutions that train health professionals and local and state health agencies. The nature of these relationships ranges from a casual connection, involving teaching, research, or consultation, to a highly structured and formal affiliation arrangement. There are four key issues that academics and practitioners working together can be particularly helpful in addressing:

1. Health professions students and many staff members of public health departments are not as well prepared as they should be to meet the needs of communities.
2. Community agencies have limited access to the expertise needed to assess community needs and respond to changing demands for services.
3. Community-based research is currently too limited in quantity and quality.
4. The need for continuing education of health agency staff and academic institution faculty is often not addressed.

Linkages between practice sites, such as local health departments, and academic institutions or programs can help address these issues by connecting practitioners with academicians to improve the practitioners' capacity to describe and solve community health problems. Such linkages can improve practitioners' capacity for critical thinking and foster an epidemiologic approach to problem-solving. Linkages can provide opportunities for students to have real-life experiences and for academicians to have access to community-based data and programs for study and evaluation.

An array of linkage arrangements is possible. A service agency may host a student for a practicum or allow him to participate in a research project. A different relationship may be defined by partnership agreements and contracts dealing with teaching, service, and research. The maximal benefits to be gained by a service agency and academic entity might best be realized if there is a formal affiliation between a health professions school and a local public health agency, similar to the more familiar relationships existing between medical schools and their teaching hospitals. Such an affiliation allows both partners to benefit from the educational connection the relationship represents.

A well-functioning public health agency provides a window on the community that can be of great value to an academic institution. The successful public health agency operates in a highly collaborative mode with many community agencies and institutions. It can also act as a conduit for exchange between academics and a variety of community groups so that access to involvement with community health issues is automatically broad. The academic public health agency, therefore, acts to direct resources to the service, teaching, and research needs of its community. In so doing, the gap between medical professionals and public health professionals is narrowed, and the goal of bringing these separate and often combative groups together into an integrated network of health promotion, disease prevention, and illness care services is more likely to be realized.

AN EXAMPLE FROM NORTHEASTERN OHIO

Several health departments in northeastern Ohio have been linked with academic settings for almost 40 years. The first linkages were between colleges of nursing and a few local health departments serving as sites for instruction in community health nursing. The Northeastern Ohio Universities College of Medicine (NEOUCOM) and the Akron Health Department have been closely linked, by design, since 1976. At that time, the college and the health department joined forces to recruit a new director of health who could also serve on the faculty of the college. The purpose was for this individual to draw the two entities together for the benefit of the mission of each by helping the college to identify its proper role in the area of community health and by helping the health department to increase its academic involvement.

Since that time, a vertically integrated curriculum in community health has evolved at the college that places medical students in community settings several times during their medical school experience. To date, seven local health departments in northeastern Ohio (as well as several other community agencies) have been involved in the teaching of medical students. The Akron Health Department has been the most involved; during the past 20 years it has added health education, graduate nutrition, graduate nursing, and public health students from a variety of educational institutions to the ranks of students mentored on a regular basis.

The Akron Health Department is now an official teaching health department for NEOUCOM. In December of 1997 the department signed an association agreement with the College of Medicine that is equivalent to the agreements signed by the College and its teaching hospitals. This agreement represents a formalization of a relationship that has grown steadily stronger over more than 20 years.

The benefits of this working partnership have been significant for both NEOUCOM and the Akron Health Department. There are currently three public health-trained physicians who work in and receive financial support from both settings. Each physician has both academic and practice responsibilities and provides a physician role model for public health practice. In addition, seven other health department staff members have adjunct faculty appointments at the College of Medicine and/or other area universities in colleges of nursing or in departments of health education and nutrition.

At least 1,000 students have rotated through the Akron Health Department over the past 20 years, approximately 120 in 1999 alone. Some students have come to learn public health practice and others to investigate community health problems. The presence of students in the department and the department's predilection for embracing the contributions that academics can make to public health practice have encouraged academics to undertake research projects that benefit from access to health department patients, programs, and data.

The subjects of research projects carried out in the Akron Health Department include teen tobacco use, compliance with hypertension medical regimens, trials of sexually transmitted disease medications, female sexual decision-making related to prevention of HIV transmission, and the impact of incentives for patients to keep appointments. It has been easy for the department to solicit academics for special services over the years, developing contracts for services when reimbursement has been possible. Included in these activities are assistance with the development of an emergency medical system for the City of Akron, development of an evaluation process for a new grant for lead poisoning prevention from the Federal Department of Housing and Urban Development, data development and analysis for Summit County's Assessment Process for Excellence in Public Health, creation of goals and objectives for the community's health plan (entitled "Healthy Summit 2000"), and medical support services for a multicounty control program for breast and cervical cancer.

CONCLUSION

Communities invest heavily in their educational institutions, public health departments, and other community health agencies. The capacity of most of these agencies and institutions to achieve their missions can be enhanced if academics and practitioners can learn to work together when their interests overlap. The "academic health department" is an example of a community agency with enhanced capacity because of its academic linkages. It is a flexible model that can be replicated in part or entirely in many communities. Its potential should be carefully evaluated when the option for beneficial collaboration is present in any community.

REFERENCES AND RESOURCES

Association of Schools of Public Health. 1998. *Strong Schools, Strong Partners.* Washington, DC: Association of Schools of Public Health, for the Bureau of Health Professions, Health Resources and Services Administration, Dept. of Health and Human Services.

Blacklow, R. S., et al. 1995. "A Required Clerkship in Community Medicine." *Academic Medicine* 70: 449–50.

Chaulik, C. P., and V. A. Kazandjian. 1998. "Directly Observed Therapy for Treatment Completion of Pulmonary Tuberculosis: Consensus Statement of the Public Health Tuberculosis Guidelines Panel." *Journal of the American Medical Association* 279: 943–47.

Gale, J. L. 1998. "Combining Academics and Practice or Seven Years Commuting over Snoqualmie Pass." *The Link (Quarterly Bulletin of the Council on Linkages between Academia and Public Health Practice)* 12: 4, 7.

Gordon, A. G., et al. 1999. "Final Report on Public Health Practice Linkages between Schools of Public Health and State Health Agencies: 1992–1996." *Journal of Public Health Management and Practice* 5: 25–34.

Halverson, P. K. 2000. "Performance Measurement and Performance Standards: Old Wine in New Bottles." *Journal of Public Health Management and Practice* 6: vi–x.

Healton, C. G., ed. 1999. "Research Linkages between Academia and Public Health Practice, 1999." *Supplement to American Journal of Preventive Medicine* 16: 1–132.

Institute of Medicine, The Committee for the Study of the Future of Public Health. 1988. *The Future of Public Health.* Washington, DC: National Academy Press.

Lasker, R. 1997. *Medicine and Public Health: The Power of Collaboration.* New York: New York Academy of Medicine.

Public Health Foundation. 1998. Minutes of the November 19, 1998, meeting of the Council on Linkages between Academia and Public Health Practice. Washington, DC.

———. 1999. Minutes of the March 17, 1999, meeting of the Council on Linkages between Academia and Public Health Practice. Washington, DC.

Reiser, S. J. 1996. "Medicine and Public Health: Pursuing a Common Destiny." *Journal of the American Medical Association* 276: 1429–30.

Seifer, S. D. 1998. "Community-Campus Partnerships for Health." *The Link (Quarterly Bulletin of the Council on Linkages between Academia and Public Health Practice)* 12: 3, 7.

Sorensen, A. A., and R. G. Bialek. 1993. *The Public Health Faculty/Agency Forum: Linking Graduate Education and Practice.* Gainesville: Florida University Press.

US Department of Health and Human Services, Public Health Service. 1995. *Public Health in America.* Report of the Public Health Functions Steering Committee. Washington, DC: Dept. of Health and Human Services.

———. 1997. *The Public Health Workforce: An Agenda for the 21st Century.* Report of the Public Health Functions Project. Washington, DC: Dept. of Health and Human Services.

Zaza, S., et al. 2000. "Scope and Organization of the Guide to Community Preventive Services." *Supplement to American Journal of Preventive Medicine* 18: 27–34.

16

Partnerships for Community Health Care in West Virginia

John C. Pearson and Henry G. Taylor

In West Virginia, there is a long tradition of feeling isolated from the rest of the country, requiring a level of self-reliance and, in health, attention to the unique epidemiology of the population. Following the models of community care pioneered earlier this century, a three-way partnership between government, universities, and receptive communities established a network of 120 community-run clinics, supported by a wide range of services developed in the Department of Community Medicine and sustained by state funding and staff. The strong commitment of academic teaching to community exposure and development of innovative adaptations of technologies to meet community needs has ensured a supply of appropriately trained professionals to run the health services and to collaborate in a constantly evolving system of care responding to epidemiologically demonstrated needs.

—*Gail Price*

Early writings about community-oriented primary care (COPC) emphasize the fundamental nature of effective collaborations between providers and the community. Sidel and Sidel (1984) cite the Peckham experiment in London, with its community board and physical exams on entry to all patients to document the health status of the population, as the first community-based clinic. Pholela's dramatic success in South Africa stemmed from the effective partnership that developed between academic professionals and the various communities they served (Tollman 1994). Sidney Kark and Joseph Abramson also emphasized the pivotal role of the community as they applied their South African experience to Israel. Jack Geiger and John Hatch in Mound Bayou, Mississippi, and Eva Salber and Benjamin Paul at the University of North Carolina, Chapel Hill, introduced the principles of COPC to the United States in the late 1950s and early 1960s. Epidemiological and analytical tools used for community diagnosis became such a powerful part of planning any community health intervention that the central role of the community became overshadowed, if not entirely forgotten.

As Geiger institutionalized his work during Lyndon B. Johnson's War on Poverty, community members held a mandatory majority on the governing boards for neighborhood health centers. They had to approve decisions, but the degree of true empowerment and control was variable. The COPC Toolkit developed by Nutting (1990) included some chapters on community involvement. However, the literature of the time still reflected a bias that external experts and government programs knew best how to implement community change. The teaching of COPC concepts is required for federal funding of primary care residencies; however, there has been minimal community-based training.

Participants in the COPC National Rural Demonstration Project from 1988 to 1991 (Rhyne et al. 1998) were sharply divided over whether "COPC" emphasized the *community orientation* of primary care (COpc), or the way in which *primary care* practices could become more community oriented (coPC). Both points of view were elegantly balanced in the modified conceptual model that the University of New Mexico developed to summarize the project (see Figure 1).

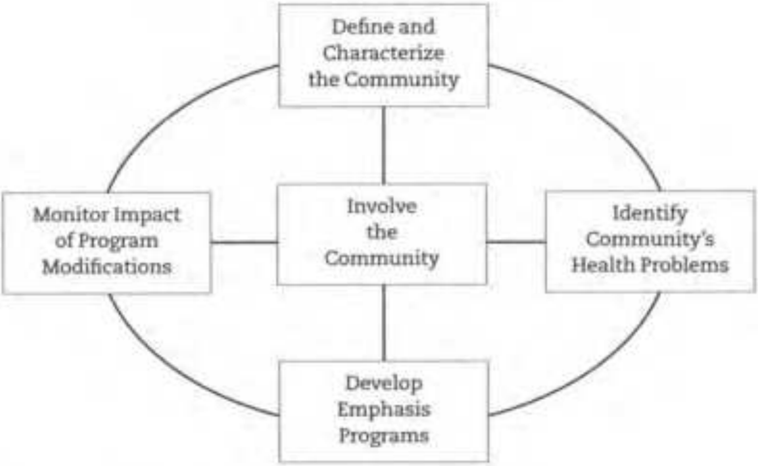
This model clearly places the community in the center of the diagram but surrounds it with Nutting's four steps. Despite the differences, the literature is clear that all five concepts are required for effective COPC practice.

West Virginia is an example of a community-oriented health and health care organization. The partnership in this endeavor includes the governor, the legislature, academia, nonprofit organizations, and members of the public, communicating together and identifying priorities for action to improve health and health care.

A rural mountainous state, West Virginia effectively used the federal effort to support health care in Appalachia. Many health and social service projects of the Appalachian Regional Commission, the Robert

FIGURE 1

University of New Mexico COPC Model



Source: Adapted from Rhyne et al. 1998, 12.

Wood Johnson Foundation, and others addressed critical human needs in this chronically distressed area of the United States. A three-way partnership between communities, universities, and government has sustained successful projects for over 30 years. Six clinics were developed by the United Mine Workers of America in the late 1960s. The New River Family Health Center was then formed as part of the Robert Wood Johnson Rural Practice Project in the early 1970s. Strong community boards worked with the foundation to recruit and sustain community clinics run by teams of local staff, family practice physicians, nurse practitioners, and highly trained administrators. Health services researchers at the University of North Carolina, Chapel Hill (UNC), rapidly translated their research findings into a series of manuals.

Seeing the success of these pilot projects, the state of West Virginia contracted with the newly formed Department of Community Medicine at West Virginia University to extend and support the model in receptive communities throughout the state. The legislature appropriated funds for rural health centers, allowing diversification and modification based on community needs. For more than a dozen years, the University provided technical and management assistance to extend the success of the first two pilot sites to what became a stable network of 63 community-run clinics. Thirty years later, the system has grown to encompass over 120 sites.

Community boards guide and direct operations, while state government provides technical assistance and regulatory oversight for millions of dollars of state and federal funds given as direct grants, cost-based reimbursements, and support for indigent care. Legislative initiatives to improve rural obstetric care, home visitation for first-born infants, enhanced recruitment for the Children's Health Insurance Program, and a network of comprehensive school-based health centers are deployed through a stable administrative structure with tight controls on accountability and cost. Other innovations in rural health education rest on this solid foundation.

The prime example at the present time is the production of the Healthy West Virginia Objectives for 2010 (West Virginia Bureau for Public Health 2001). Three hundred individuals from these constituencies worked together in committees to produce 29 chapters and

190 objectives to be reached by the year 2010. Each of these objectives has measured baseline data and planned outcomes that are realistically reachable. The report includes an innovative chapter on end-of-life care. Money to achieve these objectives has been allocated, with the top priority being to reduce the alarming frequency of smoking during pregnancy.

A very important component in achieving changes is the West Virginia University Health Sciences Center. The University, a public institution with faculty paid from state funds, is the land grant university for the state with responsibility for service to the state, and is also the research university for the state. At West Virginia University when the Department of Community Medicine was established, its responsibility was defined as service to the state through education, research, and collaboration in health planning. Activities of the Department over the years include:

- working with communities in rural areas to help them open primary care clinics, recruit staff for them, and support their management. Sixty-three clinics have been opened in this way, each a little different depending on local circumstances. The Bureau for Public Health has since taken over this role, and 120 rural sites now provide a high proportion of the rural primary care in the state.
- preparing for the development of a chain of small physical rehabilitation hospitals at key points in the state. The Bureau for Public Health supervises the implementation of this plan.
- responding to a request from the Bureau for Public Health; a departmental member was seconded to devise a Medicaid reimbursement system for nursing homes.
- taking over responsibility for the West Virginia census so that it could link demographic data with plans for epidemiological studies. This link enabled the Department to use data on the possession of cars and telephones, for example, to identify pockets of rural deprivation.
- obtaining a Prevention Research Center grant to study not only West Virginia but all of Appalachia.

- establishing a Center on Rural Aging, which conducts educational programs, research, and service activities in the state. It is also sponsored by the United Nations and WHO.
- establishing a Health Policy Center that advises state government through research and consultation.
- offering degree programs in public health (MPH) and community health promotion; an occupational medicine residency program has close research and service relationships with the state's Workers' Compensation department. Community boards supervise all of these programs.
- fostering wellness programs throughout the state at many levels: in communities by writing the first PATCH (Planned Approach to Community Health) grant, by serving on the board of the West Virginia Wellness Council for businesses, and by setting up a wellness center for university faculty, staff, and students. In addition, the State Health Education Council, a forum for health educators in the health professions, was started and for many years staffed by the Department before being taken over by the Bureau for Public Health; this is a very robust organization.
- researching causes of high infant mortality, both neonatal and postneonatal, which has resulted in combined interventions by the state, communities, and the University.
- consulting with community committees of the Bureau for Public Health, which has resulted in improved registries for cancer and infectious diseases.

In addition to participating in such departmental and Bureau for Public Health activities, the Health Sciences Center provides a wide range of services essential to the health of the community:

- The Emergency Medicine Department has a research center (CREM) and not only offers training to emergency personnel statewide but also serves as the state telephone nerve center. This Department is consulted on priorities for expenditures to improve services.

- The MARS telephone service puts community physicians, physician's assistants, and nurse practitioners in quick contact with specialists for advice and consultation. There have been 30,000 calls to date. There is also a Visiting Clinician Program, which enables community physicians to spend days on campus with consultants of their choice.
- The MDTV two-way audiovisual connection between 20 hospitals and clinics statewide offers consultations (more than 3,000 to date) and educational programs (grand rounds and university courses and conferences). The service is currently being extended to the prisons to avoid the transportation of prisoners for clinic visits.
- The Obstetrics Department provides two of the three hubs for high-risk pregnancies, and transports mothers and newborns by ambulance and helicopter. A study has shown that no babies were lost because of a failure of the system during one entire year. This Department also operates the Birth Score Program, which identifies babies at risk for problems in the post-neonatal period and alerts local health departments to initiate follow-up.
- The Poison Control Center for the state responds to calls from both the public and health professionals.
- The Cancer Information Center responds to calls from the public and professionals not only statewide but also in other states.
- Traveling clinics have been operating for many years in the larger cities in the state on a regular monthly or bimonthly basis for patients with tuberculosis and children with congenital heart disease. The latter service has been extended to conducting screening in several rural counties to identify elevated cholesterol levels in schoolchildren (and their parents, if indicated) and to offer advice for its reduction.
- TV and radio programs, led by the Vice-President for Health Sciences, are broadcast weekly on public stations.

In addition to these piecemeal approaches, there are two unique collaborative programs that originated in the department of Community

Medicine but which quickly outstripped the local resources of personnel. They are major statewide efforts that involve large groups of individuals in all walks of life.

The first is the Rural Health Education Program (RHEP). This began with a grant from the Kellogg Foundation, which the then-governor played an important role in obtaining. He persuaded the state legislature to make this an ongoing line item—currently $7.5 million a year—in the budget. Forty-seven of the 55 counties, all rural and underserved medically, participate in 13 training consortiums of health, social, and education agencies. Each consortium is locally governed, with representation from clinics, hospitals, health departments, nursing homes, pharmacies, schools, and welfare agencies. Of the annual budget for the program, $3 million goes to these local consortiums to fund local faculty, staff, and administration, learning resource centers, and the housing of students. The remainder of the money goes to administer the programs at the seven health professions teaching institutions (West Virginia and Marshall University medical and nursing schools, the West Virginia Osteopathic medical school, and West Virginia University's schools of pharmacy and dentistry).

The purpose of this program is to expose health professions students in the state to a combined experience in health care practice in rural areas over a three-month period during the later part of their training, in the hope of demystifying rural practice and encouraging them to work in rural areas. Even if they do not so choose, they will at least have had the chance to understand the problems, difficulties, and pleasures of such practice. The time is spent 80% in appropriate clinical experience, and 20% in combined activities in service, research, or community and school education.

The field faculty number 473 in all available health professions, and each year over 1,000 students participate, spending some 5,500 weeks in the communities, and reaching 150,000 rural citizens. To date, 88 physicians, 55 dentists, 54 nurse practitioners, 14 dental hygienists, and 12 physical therapists from the program have settled in rural practice.

The 18 learning centers have textbooks, audiovisual equipment, and computer workstations with e-mail, Internet access, on-line search databases, and relevant software programs. Ten of the 18 are also connected to MDTV and the universities for consultations, educational programs, and meetings. All 18 have satellite downlinks that provide other educational offerings.

The second innovative program is the Health Services Training Activity (HSTA). This is a program to encourage disadvantaged students in grades 8 through 12 to consider a career in a health profession. Twenty-one counties participate, with 50 schools, 62 teachers, and some 600 students. The teachers spend time in the Health Sciences Center to understand the range of opportunities and then have their students conduct a community or laboratory project during the school year. In the summer, the students spend two weeks at the Health Sciences Center, touring the facilities and attending lectures. The program focuses on rural and disadvantaged students and emphasizes problem solving. The program has appeal in some African countries and will apparently be taken up there. The University initiated the program, but it is run by a board with a majority of community members. Parents, teachers, and students also run local governing boards.

In summary, the level of collaboration to improve health and health care in West Virginia is high. It comes not only from state government and universities but also from practicing health professionals, researchers, teachers, students, business executives, nonprofit organizations, and interested members of the community from none of these backgrounds.

This unique collaborative relationship has succeeded through the perseverance of individuals and organizations too numerous to credit here. Our collective experience suggests that the following principles sustain our long-term efforts:

- The trust and confidence in a common vision allowed us to effectively challenge each other as difficulties arose.
- Our history of shared successes allowed continued communication to overcome barriers.
- Synergies have been fostered by change and information sharing at four levels: (1) individual growth and development, (2) social networks (which can be both supportive and otherwise), (3) organizational capacity and leadership, and (4) community-wide collaboration, ranging from social gatherings to political rallies.

- All participants must focus on analyzing their performance towards mutual goals.
- The emphasis needs to be on achieving *equity of outcomes*, not merely *equality of access*. Equity demands the strategic alignment of limited resources to truly serve those in greatest need.
- Most importantly, we have found that planning has an inherent value. Effective strategic plans are not static documents but collaborative learning activities.
- We have come to an understanding that people and communities change best through groups and group processes.
- In Healthy People 2010, coalitions have been an important tool. To paraphrase Roz Lasker's definition of a coalition (Lasker 1998): it is when a group of people work together towards a common goal, but they all know they cannot get there on their own.
- The first step towards being an effective partner is realizing who we are, what our own agenda is, and trusting others to help us along the way.

In clinical care, the quality of the doctor-patient relationship clearly enhances healing and speeds recovery. When our focus shifts to "treating the community as our patient," caring relationships become even more important. Rarely, an Albert Schweitzer or a beloved country doctor succeeds through sheer charisma. Sometimes, hospitals or other health care organizations earn a level of community trust and respect. Sustaining such relationships, however, presents even the most dedicated with a continuing enormous challenge.

REFERENCES AND RESOURCES

Kark, Sidney L. 1981. *The Practice of Community-Oriented Primary Care.* New York : Appleton-Century-Crofts.

Lasker, Roz D. 1998. *Medicine and Public Health: The Power of Collaboration. With the Committee on Medicine and Public Health.* Chicago: Health Administration Press.

Madison, Donald L. 1980. "Starting out in Rural Practice: The Rural Practice Project—Report of the Director." Dept. of Social and Administrative

Medicine, School of Medicine. Chapel Hill: University of North Carolina.

Nutting, Paul A. 1990. *Community-Oriented Primary Care: From Principle to Practice.* Albuquerque: University of New Mexico Press.

Pearce, I. H., and L. H. Crocker. 1943. *The Peckham Experiment: A Study in the Living Structure of Society.* London: Allen and Unwin.

Rhyne, Robert, et al. 1998. *Community-Oriented Primary Care: Health Care for the 21st Century.* Washington, DC: American Public Health Association.

Sidel, Victor W., and Ruth Sidel, eds. 1984. *Reforming Medicine: Lessons from the Last Quarter Century.* New York: Pantheon Books, chapter 1.

Tollman, S. M. 1994. "The Pholela Health Centre: The Origins of Community-Oriented Primary Health Care (COPC)." *South African Medical Journal* 84: 653–58.

West Virginia Bureau for Public Health. 2001. *West Virginia Healthy People 2010.* www.wvdhhr.org/bph/hp2010/objective/contents.html. [Cited July 3, 2001.]

17

Community Mental Health: The German Experience

Niels Pörksen

The author of this chapter played a significant role in modernizing psychiatric services in Germany, transforming them from an archaic system of institution-based custodial care to the modern day decentralized system of community-based programs. The current emphasis is on preventing as well as treating acute and chronic episodes of mental illness through social support services offered in outpatient settings. This transition holds important lessons for developing countries as well as rich countries; in both, mental health is an increasingly evident need in all communities.

—*Gail Price*

There is no community-based health care without mental health care. The development of community mental health services in Germany reflects this necessary integration.

My first contact with the Harvard School of Public Health in 1962 was in northern India, at Ludhiana Medical College, where I first encountered the concept of community medicine. As an inexperienced young resident, I had been asked to write a report for the German Protestant Church, which had stopped funding the Medical College. The American president of the college had resigned. He had wanted to establish highest American standards, while the Indian government as well as the staff wanted basic community medicine for the people in India. A research team from the Harvard School of Public Health supported me in writing my report in favor of public health concepts.

The 1960s were also a period of energetic development of the Mental Health Movement (National Institute of Mental Health 1966) in the United States. During my one-year stay at the Laboratory of Community Psychiatry at Harvard Medical School in 1967–68, I was influenced by the concepts of preventive psychiatry and mental health consultation emerging from the work of Erich Lindemann (1963) and Gerald Caplan (1964). Caplan's *Principles of Preventive Psychiatry* became our guide.

After my return to Germany, I got the chance to establish the department of Community Psychiatry and Mental Health Consultation at the Central Institute of Mental Health, which worked under the auspices of the University of Heidelberg. One fine day in 1970, Dr. Joan Altekruse showed up in her old, brightly colored Buick. She became an important member of our multidisciplinary team. The team included members trained in adult and child psychiatry, psychiatric nursing, public health, social work, and psychology. Young professionals and graduate students from education, administration, and medicine rotated through the different fields of the service.

Idealistic notions propagated by the American Mental Health Movement led us to assume that *primary preventive principles,* infused into the health, education, and social service system, would prevent or significantly diminish vulnerability to psychiatric illness in the population. Although that premise was overly optimistic, it had the favorable effect of embedding public health philosophy in our design. It solidified the intent to focus on the community as our client, emphasize prevention, and integrate mental health consultation practice (Caplan 1970) into the general health and social systems of the defined population served.

This ethos carried over into our basic activities. We provided consultations for the staff of the city welfare department, government-subsidized housing projects, and organizations providing shelter for the homeless. We fostered neighborhood initiatives and community programs, particularly in economically disadvantaged and physically rundown areas. We developed and supported social and service clubs for individuals discharged from hospitals and for the chronically mentally ill. In cooperation with a nonprofit student organization, we established a large self-help organization for alcoholics. In sum, we "interfered in community social politics" (Pörksen 1974), encouraging new ways of engaging people in an improved mental health environment.

We were successful in the service delivery aspects of our work. But we became less and less appreciated by local politicians, who were afraid to change classical patterns of psychiatric care. After 1968, they feared our social change initiative even more. The mayor and some heads of the city health and social service departments disliked our interference in their territory. The University of Heidelberg, to which our Institute reported, preferred to dissociate itself from the politics of social change in an attempt to maintain scientific neutrality. My supervisor, the leader of the Central Institute, feared for his own scientific reputation and forced me out. After I left, I wrote a book about the Mannheim model (Pörksen 1974), and the department changed direction.

Apart from our endeavors, German psychiatry 30 years ago was still very traditional. Only 20 years earlier, the Nazi regime had killed more than 100,000 psychiatric and handicapped patients and forcibly sterilized more than 400,000. After World War II, traditional psychiatry was re-established. The major intervention was custodial care in large institutions. Programs for outpatient care did not exist. Psychotherapy was limited. The time had not yet come to put ideas of primary prevention and mental health consultation into practice.

Happily, however, we were not far from an important turning point. In the early 1970s, pressured by a small group of community and social psychiatrists, the German Parliament set up a national commission to study and reorganize psychiatric services in Germany. I became part of that commission. We learned a lot by looking into the changes that had taken place in American and Western European psychiatric service systems. De-institutionalization and decentralization of psychiatric clinical and outpatient services evolved. Community-based services for the chronically mentally ill and for alcoholics had to be established. As a result of the work of this national commission, the government set up a national program to establish community psychiatry in all regions in 1975 ("Bericht zur Lage der Psychiatrie" 1975, Aktion Psychisch Kranke 1988).

Let me give you an example of these changes: In the early 1980s, I became responsible for a large, church-run institution in Bielefeld, a city of some 300,000 inhabitants. I was hired to reform the institution, which hosted more than 1,000 psychiatric patients from all over Germany. To create a community-based, comprehensive psychiatric service, we:

- converted a hospital with more than 250 beds and an average stay of six weeks into a community psychiatric treatment service with an inpatient program and five day-hospitals in the city;
- initiated a large outpatient program for all the groups for which we were responsible: general psychiatric patients, geronto-psychiatric patients, and alcohol- and drug-addicted persons. In Germany, the health insurance system, to which almost everyone belongs, covers all the expenses of treatment for these groups;
- established a large dehospitalization program for more than 700 patients. Some were sent to their hometowns; most were moved to small sheltered housing in Bielefeld. This program was accompanied by a large dehospitalization research project

by the Public Health Faculty of Bielefeld University. This faculty grew out of the Department of Sociology, not Medicine.

- established a community-based, comprehensive psychiatric service program responsible for the care of all chronically ill psychiatric patients in the community. It includes programs for coping with daily life, day care centers, and sheltered working conditions. The community pays for living expenses and professional care, the State for all institutional services, such as day centers or residential care.
- set up, with the community, a 24-hour crisis intervention program, a primary health care program, called Street Med (a minibus with basic medical equipment, a general practitioner, and a nurse), and a comprehensive care program for chronic alcoholics, the homeless, and the drug addicted.

A mental health board and a city steering committee are responsible for comprehensive care in the community. After a full service program for all psychiatric patients in the community was established, it became possible to restart mental health consultation and public health-oriented projects.

What we learned from the Bielefeld experience was: you have to do your own professional job, even the most difficult one, before you go out and advise other social or health service organizations. And we learned another lesson: Until 2000, our basic social service and health care system was functioning and health insurance covered full- or part-time hospitalization. The new health service law in 2000 introduced diagnosis-related group (DRG) systems for hospital payment, but not in psychiatry. In psychiatry, we have a different system for hospital payment for all patient groups: general psychiatry, gerontopsychiatry, and alcohol and drug addiction in six different groups: intensive care, regular treatment, rehabilitative treatment, long-term treatment (one year or more), psychotherapy, and day treatment. The staff decides, within defined periods, how many patients are treated in which groups. A control commission from the insurance company is allowed to examine the data. In other words, the system works so well that the new law has reaffirmed it (Kunze and Kaltenbach 1994 and "Gesetz zur Reform" 2000).

Outpatient treatment is covered by psychiatrists in practice within a managed care system, and hospitals are allowed to establish multiprofessional outpatient treatment services for the expensive care of chronically ill patients. While the communities are responsible for community care programs for chronically ill patients, the State pays for residential care.

I hope that Germany will retain this system of comprehensive treatment and care for all psychiatric patients rather than adopt other managed care systems or health maintenance organizations. Mental health for all, and adequate treatment and care for everyone in need, are still the best way of promoting public health.

Nowadays, communities and their local governments are taking the responsibility for planning, operating, and coordinating the psychiatric service system for chronically ill patients and for crisis intervention. They have recently started to enter into contracts with organizations for the homeless and the psychiatric service systems in order to implement comprehensive services for chronic alcoholics and psychiatric patients in the community. The local governments require contracts with all organizations working with chronically mentally ill patients in the communities to secure comprehensive care. They also compel the small and highly selective programs for young people with problems to participate in comprehensive and integrated services.

The Ministry of Health supports programs to initiate comprehensive care programs in community psychiatry. In addition, in May 2000 the Ministry of Labor and Welfare set up a three-year initiative to organize a program for jobs and sheltered working facilities for all people with mental and alcohol problems in the country. The idea is not to have just a variety of nice little programs, but to establish solutions to the work problems of all people with chronic mental illnesses ("Bestandaufnahme zur Rehabilitation" 2000).

SUMMARY

Now, 25 years after the beginning of the reform process, German psychiatry has been professionalized. Community-based psychiatric services have been established, and most chronically mentally ill patients live in the community. Public health concepts and practices have been integrated into German psychiatric care as part of a professionalization process that emphasized preventive and population-directed psychiatry. At the same time, administrative reorganization mandated and supported these goals through the national health system. Other ministries and local service departments now collaborate in providing a widened range of comprehensive services—social, educational, occupational, and recreational—to meet the needs of defined populations within their own communities. Organizational plans are created and implemented by individuals who represent the interests and priorities of the area's population. While traditional, institutionally based psychiatrists are slow to join these efforts, wide support and active involvement come from community representatives, patients, and family-organized support groups, and from departments and individuals in municipal offices, state agencies, national ministries, and a few progressive academic programs. Those coalitions are nurtured and enhanced by committed multidisciplinary colleagues, who make up a strong advocacy group as members of the German Association for Social and Community Psychiatry.

It is disappointing, however, that the theory and practice of community psychiatry in Germany in the medical field and within the social service system at the community, state, and federal government levels are not part of the scientific world and of the professional psychiatric associations. The Aktion Psychisch Kranke reviewed the development and perspectives of the last 25 years in German psychiatry (1999 and 2001). Its findings were: Germany reached a high standard in community-based psychiatric services, although there is a lack of coordination between services and case management, and problems with supervision and quality.

We have confidence that community mental health programs can provide effective interventions. We are encouraged to proceed with both vigor and vigilance, aware that ongoing assessment of the content, quality, and efficiency of our work will ultimately be validated by measures of improved mental health status of the people and the communities we serve.

REFERENCES

Aktion Psychisch Kranke. 1988. "Empfehlungen der Expertenkommission der Bundesregierung zur Reform der Psychiatrie in der Bundesrepublik." Bonn: Bundesministerium Jugend, Familie, Frauen und Gesundheit.

———. 1999. *Qualität und Steuerung in der Psychiatrischen Versorgung.* Cologne: Rheinland Verlag.

———. 2001. *25 Jahre Psychiatrie-Enquête.* Bonn: Psychiatrie Verlag.

"Bericht zur Lage der Psychiatrie in der Bundesrepublik Deutschland." 1975. Deutscher Bundestag 7/4200.

"Bestandaufnahme zur Rehabilitation Psychisch Kranker in der Bundesrepublik durch die Aktion Psychisch Kranke." 2000. Bonn: Bundesministerium für Arbeit und Sozialordnung.

Caplan, Gerald. 1964. *Principles of Preventive Psychiatry.* New York: Basic Books.

———. 1970. *The Theory and Practice of Mental Health Consultation.* New York: Basic Books.

"Gesetz zur Reform der gesetzlichen Krankenversicherung." 2000. Deutscher Bundestag Drucksache 14/1977.

Kunze, H., and L. Kaltenbach. 1994. *Psychiatrie Personalverordnung.* 2d ed. Stuttgart: Kohlhammer-Verlag.

Lindemann, Erich. 1963. "Mental Health and the Environment." In *The Urban Condition,* ed. L. D. Duhl. New York: Basic Books, pp. 3–10.

National Institute of Mental Health. 1966. *Essential Services of the Community Mental Health Center: Consultation and Education.* Bethesda, MD: NIMH, pp. 4–5.

Pörksen, Niels. 1974. *Kommunale Psychiatrie: Das Mannheimer Modell.* Reinbek: Rowohlt Verlag.