Community-Oriented Primary Care: New Relevance in a Changing World

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Since its inception in rural, pre-apartheid South Africa, community-oriented primary care (COPC) has intrigued and informed public health and primary care leaders worldwide. COPC has influenced such programs as the US community health center movement, the general practice movement in the United Kingdom, and recent reforms in the public health system of South Africa.

We provide a global overview of COPC, tracing its conceptual roots, reviewing its many manifestations, and exploring its future prospects as an organizational paradigm for the democratic organization of community health services. We examine the pitfalls and paradoxes of COPC and suggest its future utility.

COPC has important values and methods to offer disparate but powerful movements in public health worldwide. (*Am J Public Health.* 2002;92:1748–1755)

In 1940, two young South African physicians, Sidney and Emily Kark, went to live and work in an impoverished, rural, Zulu tribal reserve called Pholela in the province of Natal. Their task was to set up a system of health service delivery for a population that previously had received little benefit from Western medicine.[1] They were, perforce, the public health authority and the emergency room, the sanitarian and the primary care doctor. Their responsibilities, as they embraced them, entailed not only treating illness presented to them, but also taking a census of the local population and performing basic epidemiologic surveys to establish a baseline of illness in the community as a starting point for planned interventions. They carried out their surveillance work as well as their day-to-day clinical functions in collaboration with the leadership of the tribal reserve. They trained local people as health workers who carried out surveys, staffed the clinic, and gradually took on increasing responsibilities training others in health work. In subsequent years, the Karks immigrated to Israel, establishing a teaching and research program associated with the Hebrew University. They trained scores of clinicians, public health workers, and epidemiologists from all over the world in the blended practice of public health and primary care that they came to call community-oriented primary care (COPC).

In the half century since the Kark's seminal work, COPC has played an important role in health care systems in many parts of the world. Although COPC is not the predominant mode of practice in any country, its concepts have influenced programs as varied and as important as the community health center movement in the United States, the general practice movement in the United Kingdom, and recent reforms in the public health system of the Republic of South Africa. COPC has provided a steady, provocative, and positive influence on global health services delivery.[3–10]

The strength of the COPC idea over the years has been that it appeals to both practicality and principle. Practicality argues for coordination between public health strategies and primary care delivery despite the fact that most health care systems around the world have developed without collaboration between these 2 vital and complementary forces. Prevention, early intervention, and health promotion all require a functional overview of a practice's population. Current concepts of "population health" based on health maintenance organizations argue that practitioners need to have broad views of the health trends and demographic characteristics of the populations they serve even when practicing with individual patients. Managing care in any system with limited resources (which means *all* systems) requires that practitioners have some sense of disease patterns, costs, and benefits—not just for individual patients but for the entire cohort of patients and, when a practice is the major provider of care in an area, for the community as a whole. COPC invites this kind of thinking.

COPC appeals on a principled level because it envisions community participation in health care decisions. COPC creates opportunities for consumers to participate in decisionmaking about health care delivery and provides a measured, practical format for citizen input into local health policy decisions. This kind of systematic democracy is not a typical feature of traditionally hierarchical systems of health care. This aspect of COPC is particularly timely in an epoch in which quality concerns are emerging as principal issues in health care.[11] Movements such as total quality management and continuous quality improvement have migrated from the industrial sector to the health care sector. Both of these movements have a great deal in common with COPC, resting as they do on basic principles of data development, data analysis by all involved (workers and management, patients and health care professionals), and reforms based on those analyses. In contemporary terms, COPC has the potential to be an instrument of quality management in health care.

The power of the idea of COPC, then, is based on the practical format it provides for blending public health and primary care and on the important principles it calls into play, including consumerism, quality, and democracy. This report will trace the history and development of COPC, assess its relevance to health services in both the developing and developed world, and explore its role in the emerging health care systems in the 21st century.

THE ROOTS OF COPC

The Karks left rural Pholela in the late 1940s and moved to the University of Natal

at Durban, the only South African medical school for non-Whites, where they established the Institute of Family and Community Health for the purposes of teaching and disseminating the principles they had pioneered at Pholela, as well as the establishment of urban projects based on the Pholela principles. The election of the National Party in South Africa in 1948 and the subsequent imposition of apartheid led to restrictions on the Karks' work and to their eventual departure from South Africa. In 1959, they settled in Jerusalem, where Sidney Kark became the chairman of the Department of Social Medicine in what eventually became the Hebrew University—Hadassah Braun School of Public Health and Community Medicine. Using the Hadassah Kiryat HaYovel Community Health Center in a local neighborhood, they continued to develop the blended principles of public health and primary care, which they called community-oriented primary health care. Their work focused on a variety of health conditions, especially the prevention of cardiovascular disease and many aspects of child development.[12,13] The master of public health program that was developed in Jerusalem has, since then, trained more than a thousand individuals in COPC, roughly half of whom are from 75 countries around the world.[14]

The program in South Africa and Jerusalem has seeded many COPC activities elsewhere in the world. H. Jack Geiger, an American physician, who as a visiting medical student had trained with the Karks in South Africa, played a formative role in the development of the first neighborhood (now community) health centers sponsored by the Office of Economic Opportunity in 1965.[15] There are now more than 750 community health centers in the United States caring for more than 10 million patients. The Alma Ata Charter agreed to at the World Health Organization–UNICEF meeting in 1978 reflected many of the principles of COPC as articulated by the Karks.[16] In Israel, applications of COPC provided the basis for a national hypertension program at the largest health maintenance organization (HMO) in the country, were incorporated into the national mother and child health centers, and were introduced into family medicine practice in the north of the country.

Members of a COPC master's of public health program jointly sponsored by the George Washington University, Washington, DC; the Hebrew University, Jerusalem, Israel; and the Medical University of South Africa, Pretoria, who visited the Pholela Health Center in June of 2000.

COPC was recognized as an important conceptual framework in American health care at a conference sponsored by the Institute of Medicine in 1982.[17–21] The conference, which reviewed the American experience with community-based practice, was followed up by an Institute of Medicine study that established a taxonomy and a metric for measuring COPC and reviewed a number of American practices in regard to that system.[22] The Indian Health Service was the leading practitioner of COPC at the time. Earlier, in the late 1950s, the Indian Health Service had reorganized its program and established "service units" that combined primary care and public health services to address unique needs of individual communities. By the 1970s, research was emerging from the Indian Health Service that demonstrated a COPC approach to specific diseases,[23] prevention and health promotion,[24] and early efforts at systematic improvement in the quality of care.[25] Since that time, a major modification in health service delivery based on COPC principles has been undertaken in cities such as Dallas,[26] and a number of residency programs in family medicine and other primary care disciplines have included COPC in their curricula.[27–34]

Since 1987, the Hadassah Department of Social Medicine has worked with health science programs in the Barcelona region of Spain, training more than 500 physicians and nurses in COPC, and COPC concepts form an integral part of family medicine residency programs in that country.[35] In 1993, the King's Fund College in London, in collabora-

tion with the Hadassah Department of Social Medicine and the UK National Health Service, undertook a major COPC development project. Teams from 17 general practices in England and Northern Ireland trained at COPC workshops together with representatives of their district health authorities and their family health service authorities. A number of publications and ongoing activities were generated from this joint program.[9,36] COPC has been the basis for curricular reform in a number of medical schools in the United States[37] and elsewhere.[38,39] COPC principles have been embraced by the new Ministry of Health in South Africa as it seeks to rebuild the health services of that country in the post-apartheid era and, symbolically, they have constructed a new, large, state-of-the-art clinical facility in Pholela to commemorate the work of the Karks.[10] COPC has been incorporated into undergraduate teaching programs in the University of the Western Cape, the University of Natal, and the University of the Witwatersrand, and the new National School of Public Health of the Medical University of Southern Africa has incorporated a COPC track in its curriculum.

Washington, DC, has become the center of COPC activity in the United States. The George Washington University School of Public Health and Health Services offers a COPC track in the master of public health program.[40] Additionally, the school has collaborated with the Hebrew University in Jerusalem and the National School of Public Health in Pretoria to offer an international certificate program in COPC for students from around the world. The Children's National Medical Center, also in Washington, offers a COPC fellowship for pediatricians interested in community-based practice. The result of these several activities is a number of community-based clinics in the Washington area that are engaged in teaching and service programs based on COPC.

COPC DEFINED

COPC is a continuous process by which primary care is provided to a defined community on the basis of its assessed health needs through the planned integration of public health practice with the delivery of primary care services. This link with public health places health promotion and disease prevention at the forefront of the COPC concept. It features engagement with the community and community contribution to the management decisions of the practice. The idea of community is the core element and the point of departure for the COPC process, but it can also be an elusive concept—especially in urban settings where multiple population groups and overlapping health care systems are the rule. Although the geographically compact and contiguous community remains an important model, COPC accommodates many different patterns of clinical use, including highly decentralized "communities" such as members of health plans or users of maternal and child health services who may come from dispersed locations. In the latter situation, the "community" is linked as users or customers rather than as physical neighbors living in a spatially defined community. Geography is relevant, though not central, to the definition of these more dispersed populations; demographic as well as health status data remain important in characterizing such groups, although these characteristics cannot be simply inferred from their neighborhood location. The common interests and needs of both user populations are relevant, and techniques exist to assist in defining the community when simple geography does not suffice.

Three Zulu women from Pholela, South Africa, who were trained by Sidney and Emily Kark as community health workers in the 1940s.

The term COPC has the advantage of being easily understood and invoked and the disadvantage of being troublingly nonspecific. At its broadest, any practice of primary care that pays attention to its community could be defined as COPC. This would include most primary care practices and thus render the definition meaningless. On the other hand, precise definitions, such as that of the Institute of Medicine, establish a series of rigorous requirements that few practices can meet. This result is hopelessly exclusive.

A number of definitions of the COPC process have been articulated and used in various settings over the years,[41–43] including the one developed and widely disseminated by the Hebrew University in Jerusalem.[39] The working definition used by the George Washington University programs emphasizes the importance of community definition and characterization as the steps in "community diagnosis" and comprises the following 6 elements.

• *Community definition.* Defining the population is a critical first step in COPC in order to establish geographic agreement and clarity among practitioners and community leaders. It is also essential for the subsequent application of epidemiological principles and external data to the community in question.

• *Community characterization.* Bringing both quantitative and qualitative data to bear on the practice population for elucidating health status and identifying particular health problems as candidates for intervention is essential. It is important to emphasize that qualitative data that are generated from community opinion and input are as important as quantitative demographic and health data.

• *Prioritization.* In order to identify a single problem for intervention, it is important to weigh and prioritize the many candidate problems. There are semiquantitative techniques for performing this prioritization, and it is important to note that community participation is key to this step as well.

• *Detailed assessment of the selected health problem.* A typical problem that emerges from prioritization (such as teenage pregnancy or adult hypertension) has many potential forms of intervention. Analyzing the problem, the factors in the specific community that are related to it, and the available strategies for combating it is key to selecting a workable intervention.

• *Intervention.* The nature of the intervention will, of course, depend on the problem selected, but a feasible and resource-practical intervention is essential to a successful COPC activity.

• *Evaluation.* Evaluation is essential to measuring the results of the investment that practice has made and to informing the planning for future COPC activities. This will provide the basis for a reassessment of the priorities and the continuation of the COPC process in the defined community.

A number of presumptions are inherent in these definitions of the COPC process. The first is the formation of a team to lead the COPC activity. The team should include clinicians and nonclinician staff members from the practice as well as community representatives. The second is community participation in the COPC practice, which has taken many forms, including informal community boards, consumer advisory boards in health plans, and structured boards of directors in US community health centers. Involvement of community representatives in formal (the COPC team) and informal (focus groups) COPC activities is an integral part of the process, its extent depending on the social and cultural context of the COPC practice. Another principle not specified in many COPC definitions but intrinsic to the viability of the concept is that, although many problems will be identified, only one should be selected for intervention at a given time. This enables the practice to focus attention on a single consensus initiative, marshaling the energies and resources in a targeted fashion and not overwhelming the practice with multiple interventions that will prove unsustainable. It should be stressed that the intervention will be built into the ongoing activities of the practice as it continues to provide standard clinical care.

Finally, the COPC process is envisioned as a cyclical one intrinsic to the ongoing practice. When a given intervention is functioning and being evaluated, the COPC team can then consider the next problem on the priority list and initiate another cycle of strategic activity. In this way, there will be steady engagement between the practice and the community over common concerns and real time initiatives.

PITFALLS AND PARADOXES

The question may fairly be asked, then, if the principles of COPC are cogent and timely, why are they not the prevalent mode of practice in health systems around the world? What are the impediments to their adoption?

The first barrier might simply be called "the cost of doing business." COPC asks a practice to engage in community discussion, analytic work, and intervention activities that are not absolutely required by traditional standards of care. COPC calls on the practice to invest some amount of additional resource (time, effort, budget) to carry out the COPC process. Fee-for-service systems, in particular, that reward clinicians for number of patients seen provide no incentive for COPC activities unless specially planned and budgeted. Public systems, on the other hand, that have fixed budgets and more clearly articulated social missions are more intrinsically receptive to the idea.

Closely related to this reality is the phenomenon of inclusion. Community definition and characterization highlight health problems that call out for special attention. COPC identifies opportunities to expand services as it identifies problems or populations that have been poorly or unsuccessfully served in the past. This, in fact, invites the practice to work harder and do more than it has done previously—a dynamic that many practices are unable to support. It is worth noting that the commercial sector in health care often uses the same techniques to identify population characteristics that govern decisions about where *not* to locate clinical entities such as hospitals or clinics. COPC, in contrast to commercial health planning, identifies problems for the purpose of embracing them rather than avoiding them. This principled position, however, can be taxing to the COPC practice and needs to be planned for in an explicit manner when committing to a COPC program.

It is not, therefore, coincidental that some of the most robust manifestations of COPC practice have taken place in public sector settings where resources can be earmarked for COPC activities.[44] The premise that COPC cannot flourish in the private sector, however, has received some new thinking in recent years with the emergence of managed care insurance plans in the United States and elsewhere. Although most of these plans are, indeed, commercial, managed care does undertake responsibility for full service to the "covered lives" enrolled in the plan. In recent years, the development of Medicaid managed care contracts has drawn a number of commercial health plans into the care of Medicaid populations, requiring certain specified prevention activities such as early, periodic, screening, diagnosis, and treatment programs (EPSDT). Some managed care plans thus are engaged in a form of population medicine whose precepts are quite compatible with COPC. So, to the extent that health systems of the future function with full population responsibility and fixed budgets, the ideas of

COPC may well prove compatible in ways that have not seemed possible in the past.

Some practitioners have concerned themselves with methodological issues over the years,[45–52] but a paucity of practical, rapid techniques for performing the steps in the COPC cycle has impeded its widespread application. Mapping systems for community definition have not been readily available; unified data sets for demographic or health status purposes have been difficult to obtain and adapt to local areas; techniques for prioritizing problems and matching selected problems to established interventions could be streamlined considerably; and finally, practical techniques for small area evaluation need to be developed for COPC practice. Many of these problems will be converted into assets by information technology that is rapidly providing much improved geographic, demographic, and health data, as well as far greater access to such data through personal computers and personal data assistants.

A final area of impediment for COPC practice has been the continued skirmishing over the precise definition of COPC. If the definition is casual, the meaning becomes vague and COPC ceases to be an instrument for focusing or upgrading community-based practice. If, on the other hand, the definition is detailed and rigid, it becomes the standard that no one can meet. The definition proposed here is designed to provide sufficient specification to make COPC a discipline that can be taught, analyzed, and measured but that is simple and flexible enough to be viable in the context of already busy clinical situations.

FRIENDLY AMENDMENTS

A number of developments have occurred in the world of health services delivery that both facilitate the practice of COPC and make its application to practices more compelling. Three developments, in particular, stand out in this regard: the advent of increasingly accessible electronic information technology, the quality and outcomes movement in health care in general, and the growing recognition of the importance of the public health infrastructure of all nations.

The labor-intensive data aggregation and management undertaken by the Karks and other mid-20th-century community-oriented epidemiologists have been eclipsed by the advent of Web-based data and personal computing technology. The house-by-house, hamlet-by-hamlet census that the Karks and other COPC practitioners performed in earlier years in places such as Pholela or Kiryat HaYovel have been replaced in many parts of the world by national census programs whose results are available on the Web. COPC teams in the United States, for instance, can easily obtain demographic data on designated geographic areas at the census track or census block level.[53] Mortality and natality data, likewise, are often available from national organizations responsible for vital records whose data are increasingly available online.[54] While morbidity data, hospital discharge data, and other health-related information are collected by various groups and therefore are more difficult to locate, most data-gathering organizations are moving toward providing data in electronic formats that can be accessed online. These developments make the characterization of communities and the detailed assessment of their problems a far more manageable and powerful process than was the case before computers and electronic databases.

The task of community definition has, likewise, been made far simpler, more graphical, and more useful by the advent of geographic information system (GIS) software.[55] GIS programs are increasingly inexpensive and user friendly. When geo-coded patient information on users of a practice, for example, is entered into such systems, the software is able to produce locality maps that show characteristics such as intensity of use by geographic area or patterns of disease. Patients in a practice can be mapped by demographic factors such as levels of education, income, or age. GIS provides the COPC practitioner with a powerful tool to define and describe a practice and do it in a graphic fashion that promotes discourse between clinicians, health service managers, and community leaders. GIS capabilities coupled with Web-based data resources create powerful techniques for accurate characterization of small population areas in ways that will be of enormous value to practices and communities in analyzing their health problems and planning for future resource use. In many parts of the world, however, resources remain limited, and innovations in information technology will mean little for primary care practice unless and until investment is made in these enabling technologies. This technology gap in itself can present a barrier to the adoption of COPC processes.

As originally conceptualized, COPC relied heavily on epidemiological concepts for the processes of characterizing and selecting problems for intervention. Quantitative data drawn from secondary sources or developed through primary surveys were envisioned as the principle engine driving the COPC process. Community input was referenced, but techniques for systematic collection of community input were rarely mentioned. Qualitative techniques and opinion research now place a series of tools at the disposal of COPC practitioners for the systematic elucidation of community opinion. Focus groups and key informants[47,56] are foremost among these techniques, although various forms of nominal group process have also been used. While a variety of forms of input from local political and civic organizations is always part of the process, the ability of COPC practitioners to approach constituent groups with systematic, semiquantitative techniques, such as focus groups, brings a structure to the COPC process that provides both validity and democracy to the characterization of the community and the prioritization and selection of problems for intervention.

The movement for greater accountability in health services, which has been characterized by a growing concern with quality measurement in health care, the advent of outcomes research, and the recent emphasis on evidence-based medicine all add relevance to the COPC paradigm. The steps of the COPC process call for an analytic self-consciousness on the part of the practice, which puts quantitative and qualitative information on the table for consideration by the community and the practice together. COPC provides a simple format for a collaborative exercise in quality improvement that involves analysis, intervention, and evaluation in an ongoing cycle.

The terrorist events of the fall of 2001 in the United States, including the attacks on the World Trade Center and anthrax-containing

letters sent to politicians and journalists, have focused global attention on the ability of public health systems to respond to calamities. Leaders and citizens not normally attentive to public health systems are suddenly concerned with issues such as surveillance, responsiveness, and the preparation of health professionals to recognize and deal with biological, chemical, and even nuclear threats. The intersection of medicine and public health has a new visibility in this environment, and the ability of clinicians to recognize trends in disease, communicate with communities, and mount interventions has new currency. While COPC does not offer a system of immediate response for calamitous attacks, it embodies principles that put public health thinking and practice into community-based practices. Promoting the teaching and practice of COPC will do much to help build the "public health infrastructure" whose weakness the recent attacks have revealed.

FUTURE ROLES

The future role of COPC had been debated over the years.[5,57–59] Some have argued for its rigid application as a stand-alone discipline whose tenets need to be adhered to strictly in order to produce results. This might be referred to as the "doctrinaire" approach to COPC. Others have suggested that it is an attitude toward practice that should enlighten the efforts of all primary care practitioners in community-based settings. In this view, the particular steps of COPC are less important than the spirit of community responsiveness inherent in the practitioner or the practice engaged in the delivery of community-based services. This might be referred to as the "casual" approach to COPC.

While recognizing the doctrinaire and the casual tendencies of COPC advocates, we reject both and suggest a third role for COPC. COPC as a set of precepts for managing primary care delivery is neither revolutionary nor unique. A variety of other articulated systems, such as the Centers for Disease Control and Prevention's Planned Approach to Community Health (PATCH) program[60] or UNICEF's "Analyze, Act, Access" (AAA) program,[61] propose similar structured approaches to community health practice. COPC, we feel, is particularly well designed for application to primary care and can bring increased levels of effectiveness and community participation to the health delivery enterprise.

But in this world of pluralistic, evolving, and cost-constrained health systems, we think it unlikely that COPC will, or should, emerge in any country as a discrete, stand-alone, governing principle for clinical practices. Rather, we think that COPC is, and should remain, an important conceptual framework that has great utility in teaching the principles of population medicine to students of clinical practice and should provide the curricular underpinnings for community health and community medicine in residency programs and in schools of medicine, nursing, and public health. The graduates of these programs will perforce be the policymakers in primary care in the future and responsible for the application of COPC in practice.

Beyond that, we think that COPC has an important role to play in a number of current and probably future movements within health care. Let us outline a few of those.

One of the most significant problems facing health services worldwide is the growing gap in health status between and within countries. While the overall state of health in most areas of the world has improved, inequity in health and health care services is growing, especially along the socioeconomic divide.[62] The World Health Organization has defined poverty as "the most ruthless killer and the greatest cause of suffering on earth."[63] It is presumptuous to suggest that social and economic differentials can be reduced by COPC or, indeed, health care; however, COPC can make a major contribution in this context. While the identification of biological health risks is a staple of primary care, sociocultural ones are less often routinely identified. Conceptually, there is little difference between the early diagnosis of hypertension or hypercholesterolemia and the identification of health risks associated with social, economic, or cultural deprivation. The role of COPC should also be to prioritize lower socioeconomic status as a health risk, identify the specific health hazards associated with it, and plan relevant interventions. This was successfully done in Jerusalem in relation to the education of mothers and the intellectual development of their babies,[64] and it has been at the heart of the COPC program in Dallas.[44] This stands to be one of the most significant applications of COPC, with the potential to improve population health in both urban and rural settings in developed and developing countries alike.

COPC, then, will continue to have a special role in publicly sponsored clinics that provide health care to traditionally underserved populations, promoting citizen input and focusing the attention of the primary care practice on the health-related dimensions of social problems. The multiple health effects of problems such as poverty, illiteracy, and crime are within the reach of the health sector and should be considered by community-oriented practices. COPC provides a format in which these issues can be surfaced, quantified, and tackled as appropriate.

Worldwide, there is a tendency toward the more explicit fiscal management of health care. HMOs in the United States, general practice fund holding in the National Health Service in the United Kingdom, strictly limited budgets in primary care health centers in developing nations—all are examples of population medicine where a given amount of resource must be made to cover services rendered to a specified population. In all of these settings, COPC offers an instrument for examining a population and its clinical problems and making enlightened, participatory decisions about resource use. In many of these same societies, consumer empowerment is a more prominent feature of health care than it has been in the past. The activated consumer is concerned about access, but also about quality. COPC has the potential to provide a seat at the table for these concerns as the leadership of the practice or the health system undertakes decisionmaking about specific resource use and preventative initiatives. COPC, in short, provides the essential, conceptual machinery for managing care in a democratic fashion.

The growing incursion of HIV/AIDS in a number of countries in the world (particularly in sub-Saharan Africa and India) presents another circumstance in which COPC methods can be applied with considerable benefit. Health systems with modest resources are being challenged with multiple and simultane-

ous demands from the growing epidemic. These include HIV testing and counseling, HIV prevention strategies and behavior modification, the treatment of AIDS-related conditions, palliative care, the interruption of mother-to-child transmission, and potential antiretroviral treatment programs. COPC techniques can be used to define, characterize, and prioritize problems and intelligently plan the use of limited resources for specific types of intervention. They can play a very important role in the integration of the HIV/AIDS interventions with the existing primary care frameworks and thus avoid wasteful duplication of services at the local level. COPC strategic thinking stands to be of help in combating the HIV/AIDS epidemic.

The global family medicine movement is another opportunity for COPC. Family physicians are the consummate primary care practitioners, assuming responsibility for all ages in the population and providing care to families and communities. Indeed, COPC concepts have been taught widely in family medicine residency programs and discussed frequently in the family practice literature. As family medicine becomes more of a global force, the concepts of COPC should move with it. However, this will require that family medicine and its practitioners accept that their clinical responsibility goes beyond the individual and family to the broader community. Related workforce movements, including nurse practitioners and physician assistants in the United States and elsewhere and community health workers in the developing world, address the primary care needs of populations and communities. COPC should likewise be helpful to these movements, and all efforts should be made to plant COPC teaching in the curricula of these emerging professions.

The existence of these various movements in health care of which COPC is a natural ally gives promise for the future of the COPC concept. The adoption of COPC thinking by these providers will, nonetheless, be rate-limited by practical issues. Piloting, perfecting, and disseminating practical COPC methods is an imperative and quite feasible next step in the worldwide COPC movement. Health sector philanthropies and the World Health Organization will have an important role to play in developing and supporting this work.

SUMMARY

The melding of population health principles with the practice of clinical medicine in community-based settings has been a feature of some health delivery settings throughout the world for the past half century. Under the increasingly recognized heading of community-oriented primary care, this constellation of activities has provided collaborative programs of intervention and prevention in service delivery not always achieved by primary care practices. COPC has provided an important stimulant for teaching and an exemplar of best practices for community health delivery.

Emerging technologies such as GIS software and Web-based data sets, as well as developing movements such as managed care, quality improvement, family medicine, and nurse practitioners/physician assistants, provide COPC with an opportunity to provide stronger influence in future generations of health care providers. In order to make the most of its potential, COPC leaders need to develop further practical techniques for carrying out the steps of the discipline and to work creatively with emerging movements in health care to disseminate COPC thinking. The pursuit of these goals in health care systems in which personal and public budgets rarely meet health care demand and technologies become constantly more sophisticated and expensive will not be easy. Nonetheless, COPC is a powerful concept whose ethos has endured for many decades and whose science has been bolstered by exciting developments in health care consumerism, accountability, and information technology. COPC is well positioned to contribute to efficiency and democracy in health as the world begins a new century. ■

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This article was accepted June 28, 2002.

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