THE ROLE OF ACADEMIC HEALTH SYSTEMS IN PROMOTING POPULATION HEALTH

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I am honored to be a part of the celebration of Martin Cherkasky's life and work. I was fortunate to have a number of formative experiences early in my career, but none so intense as those serving as Montefiore Medical Center's chief operating officer from 1976 until 1980. Deeply contributing to those experiences were Harold Wise, MD, and Mo Katz, both of whom have also passed away recently, and I remember them and many others also as I reflect on my "Cherkasky years."

In May 1981, at Rockefeller University, I participated in another celebration honoring Martin, "Social Medicine: the Continuing Agenda," on the occasion of his retirement. The beginning of those remarks is still appropriate today, so I quote from them verbatim:

I am honored to be able to join you in honoring Martin Cherkasky, my teacher and my friend. There are many things about institutions and leadership that I learned from Martin and Montefiore in my brief four years, several of which I would like to share with you. The first is that you have to be strong and sound in basic operation and resources so that the political program and financial risks that innovations and outreach require are possible. Even in good times, and certainly in uncertain ones, weak institutions or institutions in jeopardy will not be able to provide innovation or leadership even in basic programs, much less in areas of social responsibility or concern.

Second, an institution can be tough and compassionate at the same time. There is nothing *inconsistent* about giving notice to close prison health services for lack of adequate city funding or taking a strike over a management issue and setting up senior citizen nutrition programs or facilitating special education for an employee's child.

Thirdly, a chief executive has to worry about both the large issues and the small. Nothing used to frustrate me as much as to be grappling with limited success on the major

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problems of hospital plant renovation or the neighborhood development program, (and) to be interrupted by Martin's insistence (and many of you know what that means) that the gum be removed from the front sidewalk, that the telephones be answered by the sixth ring, or that the missing letter from the sign on the Moses Building (which I hadn't even noticed) be *immediately* replaced. It is only after being away almost a year that I fully appreciate how important it is for an institution—and probably its chief executive—to worry about both the large and the small and keep them in some kind of balance.

Finally, and most importantly, it is possible for an institution such as a hospital to do an excellent job of delivering its product, such as patient care and academic progress, and still see itself as a broader social instrument and a tool for social change. Such breadth is very difficult and requires an institutional history and commitment in direction and leadership, which is rare among institutions, particularly today when mere survival often seems to be all that is possible. Such breadth is confusing to staff—I don't know how many times a chairman said to me, "I don't care what we do—but let's settle on one or two things so we can concentrate our efforts and get somewhere." Institutions with a heart or a broader view are also often *understandably* but *ironically* singled out by outside groups wanting social change as well, and this creates its own set of stresses and may retard *internal* change efforts. Of such confusion Martin often said to me, "No one ever said that our jobs should be comfortable—if everything was in order we wouldn't be on the cutting edge where we must be." It is at the same time gratifying to have been associated with such an institution and such a leader and disturbing to acknowledge its rarity.

This paper discusses the role of academic health systems in promoting population health. First, what is *population health*? This term is being used increasingly, but remains imprecisely defined. Most think that it has to do with something like prevention, primary care, or public health, which in my usage are certainly included, but I suggest a definition far broader. In writing my recent sabbatical book, *Purchasing Population Health: Paying for Results*,¹ I needed a concept that described a summary measure of health outcomes, which could be used to track our existing outcomes or, more importantly, monitor improvement if financial incentives were aligned to health outcomes rather than processes. Such a measure has to go beyond prevention and primary care, since treatment and tertiary care certainly contribute to such outcomes, and beyond public health, since determinants like income and education are required.²

I therefore define population health as health-adjusted life expectancy, a summary measure of length and health-related quality of life of individuals and populations. Several such measures are currently under development and are being used for policy purposes; they include disability-adjusted life-years, quality-adjusted life-years, and years of healthy life, used in Healthy People 2000.³ Whatever final measurement refinements are required, we need some kind of summary measure, such as the consumer price index (CPI) or national educational and environmental standards, to allow us to manage and create incentives for progress in the right direction.

Such a broad definition has to acknowledge the multiple determinants of health. Following the conceptualization of Evans and colleagues at the University

of British Columbia,⁴ population health is not produced only by health care, but also by the appropriate balance of health care, genetics, physical environment, socioeconomic environment, and individual behavior and biology. It is for this reason that I add the definitional caveat, “in the economic context of the relative marginal return from the multiple determinants of health.” Some health care interventions produce more population health improvement per dollar than some socioeconomic ones, but likewise some socioeconomic ones are more efficient than some health care interventions. I have come to believe firmly that, in a resource-limited world, optimal population health improvement will not be achieved until financial incentives are aligned with the future marginal contribution of each determinant.

What about the role of academic health systems in achieving this goal? Since health outcome determinants are far broader than what academic health centers currently get paid for, they cannot be expected to do it alone. They are powerful and rich, however, and can be broad instruments of social responsibility. Martin Cherkasky wrote the following in 1992:

The managers of health care resources are stewards of a powerful and magnificent product of human ingenuity. One of our chief responsibilities, despite preoccupation with the survival of our own enterprise, is to constantly push forward the frontiers of service and concern for the society we serve.^{5(p218)}

There are three general areas in which academic institutions can and must provide leadership. First, they must be among the leaders in integrating delivery across inpatient care, ambulatory care, home care, long-term care, and public health and in moving to financing demonstrations that reward for demonstrated population health outcome improvement. The beginnings of such “value-based purchasing” are taking place in both the private and public sectors,⁶ and academic systems must be involved and take leadership so that the care is of the highest quality and that careful evaluation is performed.

Second, much more research is needed in the population health and clinical evaluative health sciences of epidemiology, economics, sociology, psychometrics, and ethics, so that we can get answers to the pressing questions of health outcomes measurement, determining the marginal contributions of each determinant, and designing incentives that will be effective for individuals, providers, and public and private payors. Such methods and applications must be built into research and professional training at all levels, and new programs must be created, such as our new master of science/doctor of philosophy in population health at the University of Wisconsin in Madison.

Finally, academic health systems should take leadership roles in how the

health care sector can be integrated with the agents of the other determinants, such as schools, welfare departments, businesses as employers, public health agencies, and government. Such integration probably will be virtual rather than vertical, in that ownership and control will not be the dominant form of relationship. I am calling such a local integrating process a health outcomes trust, but expect that many different models will emerge and be effective. Actually, whether Martin could have effectively led such a strategy that does not involve control is uncertain, but we should not be limited to learning only from the successful aspects of his life and work.

In my last conversation with Martin before his death, we talked for several hours about the first draft of my book and the prospects for implementing a "purchasing population health" strategy. He was clearly in favor of stronger financial incentives to achieve improved outcomes, but warned me of the fierce strength of financial and institutional forces with stakes in the status quo. He commented that I might have said too much, since the forces resisting change would understand and exploit more easily the weaknesses in a new paradigm.

If Martin were alive today, he would be taking a very hardheaded, power-sensitive, and bottom-line approach to this issue of great social importance. These qualities were rare in his time and are even rarer now. So, what are our realistic chances of actually improving population health? What would Martin tell us to do?

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