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Health professions schools can contribute significantly to the mission of metropolitan universities and have a substantial impact on their communities. In addition to the direct impact of their graduates and the economic impact of the schools and their affiliate health care facilities, they can make a major contribution to serving the health care needs of the community. The article illustrates this with examples of activities at the College of Allied Health Sciences and Physical Education at Towson State University.

Making a Difference:

The Economic, Social, and Health Care Impact of Schools of Health Professions in Metropolitan Universities

The importance of the health industry and the schools that produce the professionals to work in that industry is graphically illustrated each Sunday in the employment section of Baltimore's newspaper, *The Sun*. A large section of the paper is devoted to job listings in health care, most of which are in nursing and allied health. The section also includes an article each week on a specific allied health field and another article on a specialty area in nursing.

The health professionals that serve the public in their private practices, hospitals, and other settings, are produced by our nation's health professions schools. These schools are most often located in urban and metropolitan universities, and consist of schools of medicine, dentistry, optometry, pharmacy, podiatry, public health, nursing, and allied health. I will refer collectively to all of these schools by using the term *health professions schools.* I will be giving particular emphasis to schools of allied health and nursing because of my relationship to them and because the graduates of these schools, in terms of numbers alone, are a major component of the health care system. The profession of medicine, and among health professions schools, the school of medicine, however, remain the predominant forces in health care today.

Allied health workers and nurses make up the largest components of the health care work force. As a group,

allied health workers comprise about 60 percent of the entire health care work force. Nursing, which is not considered to be a component of allied health, makes up the largest single health discipline, with more than 1.7 million nurses practicing in a variety of settings throughout the health care system. When one thinks of health care, physicians generally come to mind first because of their status and role, but as a group, they number only somewhat over half a million professionals in practice. For every physician there are about 12 to 15 other individuals employed in some area of the health care system. So, it is not uncommon to see in many metropolitan newspapers, large portions of the employment section devoted to employment of nurses and allied health professionals.

In many major metropolitan areas like Baltimore, health care is the largest sector for employment, and universities with large hospitals are often the largest employer in the metropolitan area. In Baltimore, The Johns Hopkins University is the largest employer, due primarily to its health facilities. In Birmingham, Alabama, the University of Alabama at Birmingham is also that area's largest employer. Boston also has a multitude of hospitals and health facilities that, as a group, have a tremendous impact on the economy of that locale.

My college, the College of Allied Health Sciences and Physical Education, though not small, is the smallest college at Towson State University, with only 1,200 undergraduate and 300 graduate students of our total student body of nearly 15,000. Although we are the smallest in terms of student numbers, I am constantly reminded of the impact that our graduates have on our local community.

Towson State University, a metropolitan university, is located in a northern suburb of Baltimore. Contiguous to our campus are three hospitals—two major acute care hospitals with something over 500 beds each, and a large, private psychiatric hospital. We are affiliated with each, and in addition to using them for portions of our clinical training, we have a variety of joint programs and activities. In one sense we share a joint campus of about one square mile in area. These four organizations, each devoted to providing a variety of human services, together comprise a work force of over 7,000 people and have a direct combined budget of around one-half billion dollars. That is a potent economic and social force for the community.

Several miles away in downtown Baltimore is the University of Maryland at Baltimore (UMAB), essentially an academic health center that includes several professional schools, and the hospitals and related facilities that comprise the University of Maryland Medical System (UMMS). In 1988, UMAB and UMMS conducted a study of the economic impact that they have on the Baltimore community. They found that these institutions, using an appropriate calculation for the multiplier effect, contributed $948 million to the State of Maryland in 1987, and were responsible for generating 16,000 jobs in addition to those of the 8,200 employees of the university. Other academic health centers with their health professions schools

and treatment facilities have conducted studies with similar results. It is clear that these schools and their associated health care facilities have a tremendous impact on the local and regional economy.

Health as a Component of the Mission of Metropolitan Universities

Metropolitan universities are politically and socially powerful institutions in American society. They have complex missions and responsibilities. In addition to educating individuals to serve in a variety of roles in our society, they serve as extenders and storehouses of knowledge. In recent times, they have become more accessible to larger segments of society, and their role and mission have changed, to become one of increasing interaction and service to the communities within the metropolitan area in which the university resides.

All universities, but especially metropolitan universities, are being asked to address a multitude of the problems of the American public. The expectation that university policymakers can address vexing problems is not inappropriate. There are few other institutions in our nation that can bring such potent forces to bear on societal issues. As recipients of major public funding, universities are expected to be accountable for successfully using those resources to either solve, or at least ameliorate, the concerns presented. Within the metropolitan areas that shape our national culture, universities serve as major change agents to transform our society. It is little wonder that universities, especially metropolitan universities, are being asked to be a primary force in transforming our health system and the health status of the population.

Health professions schools have long been recognized as a primary source of leverage to bring about change in the health care system. Since they train future health professionals, the values, skills, and abilities they inculcate in these individuals have a dramatic influence on how the health system will operate. In addition, the schools have the expertise to evaluate the adequacy of the current health care system and to develop new arrangements for organizing, delivering, and financing health care.

As pointed out by the Pew Health Professions Commission in its report, *Health Professions Education for the Future: Schools in Service to the Nation*:

> The health professions are respected because of the special, almost sacred, role they have in matters of life and death. This most human of all enterprises—welcoming new life, aiding the sick, and comforting the dying—should be one that is always held in the highest esteem by those who benefit from these services. The only legitimate source for such a position in society is when it is drawn from the health care needs of the public. If the

> professions are to be preserved from becoming just associations for health care workers, then their work must begin and end on the fundamental values that define and shape their calling. Education, perhaps more than any other institution affecting the professions, is in a position to form these values initially, to reinforce them throughout professional life, and to interpret them when the demands of health care change (p. 13).

Education of today's and tomorrow's health care professional requires more than the traditional emphasis on biomedical and clinical science training. Developing competencies in the broader social aspects of health care is of increasing importance. The definition and concept of health began changing in the 1960s from a biomedical phenomenon to one that now includes a large social component. Promoting prevention, addressing cost-effective and appropriate care, and caring for the community's health are all important components in the educational experience of developing health professionals.

The Call for Reform in Education

Broad forces for reform are operating in both higher education and in health care. As enumerated in another Pew report, *Healthy America*, there are six trends affecting higher education that will also impact education in the health professions schools:

- the graying of the professoriate;
- increasing diversity;
- challenges in the financing of higher education;
- redefining scholarship and the role of higher education;
- curriculum reform; and
- the demand for accountability.

Against this backdrop for higher education overall, health professions schools are being pushed both to change themselves and to act as change agents for the health care delivery system. As stated in *Healthy America*:

> The Pew Health Professions Commission believes that change must begin with a new vision of what health professionals ought to be doing that they are not doing today. In general terms, they need to be closer to the patients and their families, and they need to understand better why people behave the way they do, particularly under stress. The ultimate goals of the health professions are to cure those diseases that are curable and contain those that are not in ways that allow individuals to function as well as they can (p. iv).

Just as the Pew report identified trends for higher education, it also identified eight trends that will shape the delivery of care in the U.S. They are: increased organizational complexity and diversity; the spread of the corporate paradigm in health care; shift from professional values to managerial values; shift from inpatient to outpatient care; emphasis on primary care; the changing nature of long-term care; growing acceptance of mental health services; and, health care personnel.

A telling indication of the need for reform in health professions education is shown in how health professionals rate the training they received in preparing them to deal with various competencies. When asked if their training prepared them to understand and respond to the diverse needs and values of different cultural or ethnic groups in the community, 51 percent rated their preparation as negative and only 13 percent as excellent. When asked if their training prepared them to understand and support the important role that service agencies in the community play in meeting the health needs of their patients, 59 percent rated their training as negative and only 8 percent as positive. Clearly, change is needed in the way we teach our aspiring health professionals and in the competencies we impart in them.

Meeting the Needs of the Public

Today our nation has an impressive technological ability to deliver sophisticated and very specialized health care. Yet we seem to lack adequate controls on how to use that technology in its most appropriate way. While we can bring an impressive array of equipment and expertise to bear on specific health problems, we still have inadequate immunization for many children. The health system is replete with such dichotomies. The public is generally pleased with the care they receive from their personal health care providers, but they are increasingly impatient and dissatisfied with the health system itself and the arrangements for the delivery of health care.

In our metropolitan areas, the public suffers as a result of health issues of two general kinds. In the first, illness is related to inadequate identification that better testing and screening could address, to poor health education and information for the public, and to a lack of adequate prevention and primary care services. The second issue, however, deals with social determinants of health that are severely impacted by drug abuse, guns and violence, alcoholism, fragmented families, and a number of other social pathologies. Many of the programs in our health professions schools address the first set of issue, the ones that can be changed by promoting more healthy lifestyles, providing more primary care, increasing immunizations, and giving better information and education to the public. Really to affect the overall health status of the community, however, schools cannot escape the fact that they must find improved ways to address issues of social pathology as well. Violence, hopelessness, and drug abuse will also need to be effectively addressed if the overall health of the community is to be substantially improved. These issues are the more difficult ones

to address and solve. The very essence of metropolitan universities gives hope and makes them an appropriate agent for change. They are well suited to identifying the problems, conducting the studies, considering new and innovative interventions, and developing projects and programs to confront the issues in meaningful and significant ways. This is a role not just for the health professions school but for most of the schools within the metropolitan university.

How metropolitan universities view themselves, their mission, and the reward system for their faculty appears to be changing with the times. Ernest Boyer, President of the Carnegie Foundation, in his work *Scholarship Reconsidered: Priorities for the Professoriate* has addressed the changing paradigm of scholarship in many of the nation's universities. He calls for scholarship that not only addresses discovering knowledge, but also an expanded view that also emphasizes the integration of knowledge, the communication of knowledge, and the application of knowledge through professional service. The expanded view of scholarship is essential to what schools in the health professions should be about if they are to make a difference in their communities. This updated concept of scholarship and its affirmation in our metropolitan universities is crucial to better aligning our metropolitan universities with their mission.

The Community as a Laboratory

As one means of preparing more informed practitioners, health professions schools need to focus much of their effort on the health care needs of the communities they serve. Measuring the effectiveness of care provided in the community, studying and determining the specific needs of the community, and designing ways to improve health delivery and outcomes are tools the schools can apply their expertise, while at the same time using the community as a teaching laboratory. The students benefit and the community benefits by assuring a congruence between the needs of the community and the knowledge and abilities developed by health professions students.

The educational experience of students, including research and service, will be more relevant to and reflect the community's needs. In almost all metropolitan universities, students deal with culturally diverse communities, communities in which they will need to learn varying strategies to help individuals, families, and the communities themselves develop and maintain health behaviors.

Health professions schools serve multiple constituents. Included are the professions represented in the schools, the students who are enrolled, the state, the research community, the health delivery system, and, most importantly, the public. The schools have the ability, with their knowledge of how systems work, to make health care and education more accountable for what they do and for the resources they consume. By developing and maintaining relevant data bases, they can measure and address how successful they and other providers in the community are in meeting their goals and the needs of the community.

To be successful in the long run, partnerships between the community and the university must be built on mutual respect, trust, and the development of continuing relationships. Success is dependent on sustainability of the relationships and the projects that result. The university must be willing to be involved in a long term relationship.

Serving the Health Care Needs of the Community

Health professions schools exist to serve the public. Yet too frequently, the focus is on a generalized concept of *community* rather than the specific setting in which the schools exist. This is particularly true for institutions that are research universities with a national focus. By contrast, metropolitan universities are more likely to take seriously their setting and incorporate addressing the health concerns of their local metropolitan community within their mission.

Of the different types of health professions schools, all share to some extent connections with their local community. This is true of schools of medicine, dentistry, nursing, pharmacy, and allied health. It is particularly true for schools of public health, which have historically seen their mission as addressing population health issues. Schools of public health have always dealt with the interface of the biomedical aspect of health with the social factors that have a tremendous impact on the health status of individuals and the community.

In recent years, health professions schools other than public health have incorporated traditional public health subjects and initiatives as a part of their mission and curriculum. Now it is the norm to find schools such as those of the allied health professions and nursing giving substantial attention to epidemiology, biostatistics, surveillance measures, and various population health subjects. This shift in focus recognizes the fact that health is a complex interaction of many factors, not just those of a biological or physical nature. Certainly schools of public health continue to address their historical concerns, but now the education of most health professionals involves a broader orientation to the causes and interactions that influence illness and wellness.

What are some of these broader population health issues? In their report, *Closing the Gap: The Burden of Unnecessary Illness*, Robert Amler and Bruce Dull describe a number of precursors to illness. These same precursors can be addressed by schools of the health professions to help their communities. Such efforts in preventing illness and dysfunction often require efforts by the entire social system, not just the health care component. The educational system, industry, and government must also be included. Though broad action is needed, we often become somewhat jaded and insensitive to the magnitude of the health issues we face. Among the problems Amler and Dull cite are the following:

> More than 350,000 people in the United States still die from smoking-

> related diseases every year. This is equivalent to four wide-body jets crashing every day with no survivors. We would not tolerate such a waste of life from airplane crashes, and yet we accept tobacco, with its monumental risks, as a pervasive element in our society.... Alcohol accounts for as many deaths each year as did the entire Vietnam War. Half of these deaths are the result of alcohol-related accidents, particularly automobile accidents. Many of these deaths are among youth, awarding alcohol the number two spot in the ranking of risk factors leading to the loss of productive years of life... Injuries impose a greater burden on modern society than any disease, but this burden is not shared equally. Rather, it rests heavily on the poor, teenagers, young children, and the elderly. Mortality from injuries is a leading cause of years of life lost prematurely. When injuries are not fatal, they can result in serious and permanent morbidity and disability (p. 189).

Our metropolitan communities are increasingly diverse in terms of racial, ethnic, and socioeconomic groupings. Within these metropolitan communities reside large numbers of minorities and low-income groups. A long known fact is that these are the groups most prone to a greater proportion of illness than the overall population. When one analyzes dimensions of health, there is a clear picture that people disadvantaged by virtue of their income, educational level, age, residence, and membership in racial or minority groups are characterized by lower levels of health status than are the advantaged. Within the communities where our educational institutions reside, then, are some of the greatest needs and challenges for our health professions schools.

Schools of Allied Health and Nursing

For many metropolitan universities, the social problems of the areas in which they exist often seem overwhelming. Drugs, violence, AIDS, and social disintegration are familiar and vexing issues which can at times seem to overwhelm even the best organized and committed institution. These problems exist not only in the sections of our communities where there is poverty, but in the more affluent sections as well. It is in this milieu that metropolitan universities and their health professions schools often create a learning environment for students, and at the same time serve their neighboring communities.

Faculty and students know from the outset that they are not just preparing themselves in some abstract way to serve, but that their actions, as a part of the actual learning process, impact the lives of the residents of the community. They learn quickly that many lives can be salvaged and the overall health status of the community can be positively impacted if effective interventions by the schools can be implemented.

Most health professions schools find ways to make meaningful differences in their metropolitan communities. In addition to schools of medicine, this certainly applies to schools of nursing and the allied health professions. These schools frequently develop community outreach programs in primary care, disease prevention, and early detection to reduce death and the incidence of illness. They are involved in screening programs for various kinds of cancer, efforts to reduce lung cancer deaths by lowering the use of cigarettes, public education efforts to help combat AIDS transmission, and programs in the area's middle and high schools to address problems of alcohol and drug consumption.

Each school and university finds its own means to interact with the community. At Towson State University, my college combines teaching and service in a number of ways. One project involves faculty in health education working with students in the Adolescent Parenting Program at a local high school. Workshops are conducted for the teen-age parents, focusing on parent and career education as well as health issues. The program combines community resources, such as government and non-profit organizations, to provide child care within the high school itself while adolescent parents finish their high school education.

In another project, the Regional Alcohol and Drug Abuse Prevention Training and Resource Center, a component of the college, manages a program featuring peer leadership in local middle and high schools. It also conducts programs to reduce impaired driving among high school and college students.

The college's nursing program, the second largest in the state, uses area high schools for a portion of the clinical education of students. Students who choose a school health setting for their clinical practicum, work side by side for one semester with a school nurse two days a week. The students help manage the school's health suite and assist the school nurse in conducting follow-up evaluation of students who may have health problems identified during a formal screening.

Students in an advanced clinical practicum in Speech-Language Pathology and Audiology typically spend from three to five days a week in schools for an entire semester. Under the supervision of a licensed speech-language pathologist or audiologist, students gain experience screening, evaluating, and even treating children.

Such community based sites for practice are a frequent way of conducting portions of clinical education in these disciplines and in others that focus on community care, such as occupational therapy and health education. These are but a few examples of how clinical education and service intersect in community settings.

Schools of allied health currently find themselves in an interesting dilemma. There is high student demand for admission to their programs and high employer demand for their graduates. Yet, most of the schools cannot adjust their enrollments to accommodate this increased demand. There is pressure for creation of new programs to meet, in many instances, an increasing imbalance between personnel sup-

ply and demand. However, institutional resources are generally very constrained, and allied health programs may represent a more costly type of education than the average liberal arts and science program. Even if funds can be found, there is a shortage of faculty, particularly those prepared at the doctoral level. Another important factor is the need for strong administrative leadership in schools of allied health to mediate the great potential for fragmentation and territorialism that result from a very strong disciplinary orientation in each of the health professions.

Very often students in the allied health programs are the most academically talented and gifted students on the campus, and the programs frequently are identified as those of the highest quality in the institution. The presence of allied health programs, due to their relevance and merit, can bring great credit to the institution and create much good will among the public and the community.

A Symbiotic Relationship

What can metropolitan universities and their various health professions schools expect over the next five to ten years? If recent years are a good indication, and they should be, we are likely to see a continuing and accelerating emphasis on several social forces: increasing diversity in the society; a greater proportion of our citizens that are aged (and with increased age comes increased use of health care services); a greater emphasis on population health measures than only on individual health needs; and minimal increases, and perhaps even decreases, in federal and state support for many education and health care programs.

These trends all seem to align themselves with the traditional mission of metropolitan universities, and they call for a larger role for the health professions schools within those institutions. The schools and their graduates will increase their already substantial impact on local economies and the social fabric of their communities. Because metropolitan and urban universities have always tended to emphasize the use of their resources through applied academic programs (in professional schools, applied graduate programs, and also many undergraduate programs), applied research, and service activities that are dedicated to strengthening and improving communities, these universities will be of increased relevance and influence.

Health care is frequently the largest or one of the largest industries in many urban and metropolitan areas. Its role will increase in the future, but in ways that are not necessarily linear with past experience. The health care industry is going through dramatic change and restructuring, state and federal policymakers are struggling with limited dollars to provide basic health coverage to greater numbers of people, and individuals and businesses are increasingly concerned about the cost of health care. As the concept of health itself continues to evolve and change from the traditional biomedical emphasis to one that includes the more complex and vexing social aspects, we will continue to see a growing interdependence between health

professions schools and the community, between health professions schools and the rest of the university, and between health professions schools and the quality of life and the economy of our metropolitan areas.

Suggested Reading

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