Edward H. Peeples

The Age of Abundance has passed and the new era of scarcity has us feeling powerless to begin any new programs in the universities, let alone those in human services or urban revitalization. This article offers an account of how the Virginia Commonwealth University confronted the shrinking resources for its urban mission by creating a Master of Public Health degree program. We recount here some of the obstacles that we confronted and how we extracted existing elements from the University and professional communities with which to build the program. Finally, the article reports how, despite our initial concern that the scant resources would hinder the quality of the program, the M.P.H. has now become a brisk hub of activity and personnel that combines much needed service to the urban community with the best of professional education.

Initiation of an M.P.H. Degree Program:

Reengineering Resources in a Metropolitan University to Meet Urban Needs

Restructuring, downsizing, rightsizing, reengineering, recision—are just some of the fearsome expressions that remind us that the "age of abundance" has passed. A new era of scarcity has seized our universities with no more kindness than it has assaulted business, government, and many individuals across America. As a consequence, many university leaders are in the grip of a numbing pessimism about the prospect of beginning any new programs, much less those in human services or urban revitalization. This is just the kind of paralysis we initially experienced at Virginia Commonwealth University (VCU) a few years ago when, for the first time, we crashed into the wall of budget cuts.

Following is an account of how we at VCU in one programmatic example came to confront our shrinking resources; how we decided that financial calamity was not enough to cause us to turn our back on the escalating needs in our metro area; how we imagined we might do more good with less; and then how we plunged into the creation of a Master of Public Health (MPH) degree program in the Department of Preventive Medicine and Community Health in our School of Medicine.

M.P.H. Training and Public Health Practice in the United States

Obscured by the long shadows of the more familiar health professional schools of medicine, dentistry, pharmacy, nursing, and health administration, churns the wheels of a workhorse health professional program little known to the public and even to some academics—the M.P.H. Whereas most other health professional schools center their training on the diagnosis and treatment of the ill person, the MPH focuses on "population medicine," the health status and prospective remedies for large cohorts facing similar risks for and experience with morbidity, disability, and mortality. Population medicine is not practiced at the cost of disregarding the individual, but rather capitalizes on the opportunity to treat harmful conditions early in the pathogenic chain of events with interventions of scale. The knowledge base for the public health and preventive medicine enterprise is, to say the least, vast and sometimes agonizingly multidisciplinary.

M.P.H. training prepares its graduates for a wide assortment of work settings in health planning, policy and administration (e.g., project management or program evaluation), health promotion (e.g., nutrition or health education), health protection (e.g., controlling toxic substances such as asbestos or benzene or harmful physical agents such as radiation or noise), and clinical preventive services (e.g., immunization or family planning). Persons holding the M.P.H. can be found in any number of work settings in government, in nongovernmental organizations, and in the private sector. Examples include public health departments, workplace health groups, environmental regulatory agencies, toxic materials and hazardous waste management firms, occupational health and safety programs, hospitals, clinics, voluntary health associations, school health, gerontology and geriatric programs, and fitness and wellness activities.

M.P.H. programs combine training in epidemiological and ill health surveillance methods, statistics, environmental sciences and occupational health, social and behavioral sciences, and health organization and services (administration, planning, policy, regulation, and law) to create an integrated perspective aimed at preventing and controlling ill health conditions. The assumption, of course, is that, if we have a choice, it is more humane and cost effective to treat the individual before the onset of their affliction.

The M.P.H., unlike other health and human service degrees, is not solely a ticket to enter a particular health profession. Rather, it embodies a unique perspective and set of skills that can readily be infused into another profession that one already practices. The physician, the dentist, the nurse, the nutritionist, or the social worker with M.P.H. experience is more likely to stretch the frontiers of thinking about health and illness conditions and to employ a wider number of remedies to combat the disorders they confront in their practice. The M.P.H. program is, then, the prepara-

tion of choice for those whose keenest concern is broad spectrum prevention.

While the favorable effect of trained public health workers on the status of individuals in a community has long been appreciated, the community impact of the M.P.H. academic program itself has attracted little attention. Our contention is that the synergism generated by the M.P.H. program activity itself, in the form of faculty and staff consultation and research, public education, student projects, field experiences, preceptorships, volunteer service, and other active community links can actually become source of favorable influence on urban conditions. Therefore, an M.P.H. program located in an urban academic medical center has profound implications for the life of its central city and metropolitan area.

The M.P.H. degree is presently offered by each of the nation's 27 schools of public health and by at least 49 M.P.H. "programs" accredited by or otherwise known to the Council on Education for Public Health, the official accrediting agency for public health training programs, but exist outside the organization of a university school of public health.

Unofficial information suggests that there may be another two to three dozen programs across the country in various stages of development preparing to offer the M.P.H. degree. This number, of course, does not refer to a count of the M.P.H.'s academic first cousin, the Master of Science in Public Health, or other such degrees such as the doctorates offered by schools of public health.

The Urban Context

The Richmond-Petersburg Metropolitan Statistical Area includes four independent cities and nine area counties with a total population of some 900,000 persons. Like most of urban America, many of our inner city neighborhoods are deteriorating, have lost many of their middle class homeowners, experience escalating crime rates, have a disproportionate number of unmotivated, alienated, and low achieving youth, and struggle mightily to maintain tax competitiveness with suburban localities against the costs of social, economic, and health problems. More specifically, our city faces all of the classic problems of urban poverty: high rates of infant mortality and low birth weight babies, teenage pregnancies, alcohol, drug and tobacco abuse, drug trafficking, homicides, suicides, interpersonal assault, intentional injury, accidents, HIV/AIDS, sexually transmitted diseases, TB, high blood pressure, diabetes, oral disease, asthma, poor diet, homelessness, mental illness and retardation, birth defects, undetected hazards in the environment, habituation to unhealthy life styles, and inappropriate utilization of health care. All of this, of course, severely strains the city's ability to keep good workers, promote commerce, maintain property values and a sound tax base, and sustain confidence in the city's viability. Many of these problems are not confined to the inner city: deterioration is accelerating in suburban counties as well.

The University Setting

Situated on two campuses, 19 city blocks apart in downtown Richmond, Virginia Commonwealth University is the quintessential metropolitan university. It was created as an urban university in 1968 by a merger of two established state institutions, the Richmond Professional Institute (RPI) on the west side of downtown and the Medical College of Virginia (MCV) on the eastern edge of downtown. RPI came to be known as the academic campus and the location of the College of Humanities and Science and the Schools of Arts, Business, Community and Public Affairs, Education, Mass Communication, and Social Work. Meanwhile, MCV, which kept its original name, became the university's academic medical center and home to the schools of Medicine and Basic Health Sciences, Dentistry, Nursing, Pharmacy, and Allied Health Professions. The School of Graduate Studies has responsibilities on both campuses, including oversight for nearly two dozen doctoral programs.

While Richmond can hardly be characterized as a college town, VCU has a sizeable impact on the life and economy of the metro area. In addition to the educational, research, and cultural contributions, the university provides over 12,000 jobs, purchases tens of millions of dollars worth of products and services from central Virginia businesses annually, and offers thousands of hours of service to the community each year.

VCU traces the seeds of its urban commitment back at least to the middle of the nineteenth century for its medical presence, and back to World War I for its public health and social work enterprises. One of this author's family members illustrates the longevity of this tradition: Dr. Robert Stockton Johnston Peebles volunteered service to the Richmond City Board of Health while he held the academic post of Chairman of the Department of Chemistry and Pharmacy at MCV from 1869 to 1873. His commencement speech on March 3, 1870, to the MCV graduating medical class implored them to emphasize the benefits of prevention and to dedicate themselves to public health measures, especially in Richmond.

The VCU urban mission was significantly advanced in the first half of the 20th century, under visionary leaders such as William T. Sanger at MCV and Henry H. Hibbs at RPI who, in many ways, anticipated the rising needs and the emerging urbanization of Virginia in the 1960s. For many decades then, this mission has attracted service oriented and community minded faculty and staff to VCU. In fact, by the time of the merger of RPI and MCV, their missions of urban service was embedded in their character and became part of the charter of the new Virginia Commonwealth University.

Despite the tradition of urban service and applied research, however, concurrent countervailing forces in the university have made it difficult for community oriented and applied researchers to gain status and obtain resources. For example, until

recent years on the medical campus, a strict and unassailable biomedical paradigm was preeminent. As a consequence, epidemiology, public health, applied social science, and preventive medicine enjoyed little interest or respect. Their low status tended to discourage meaningful links with programs on the academic campus as well, despite the fact that they had many disciplines and degrees that also served the special needs of the city, such as social work, the social sciences, urban studies and planning, and business. The net effect was that many saw the Department of Preventive Medicine as either ineffective or peripheral to medical center goals and something of a luxury and its reason for existence subject to periodic critical review. Sometimes the disdain lead to speculation about disbanding the department or at least having its modest resources absorbed by some other more viable medical school department. But, from at least the early 1960s, public health professionals and their advocates discussed the need for and the prospect of an M.P.H. program in the Richmond area,even though most of them conceded that it was wishful thinking.

With the growing recognition of the medical care cost crisis, rapid ascendancy of the managed care revolution and HIV/AIDS, violence epidemics, questions have arisen about the ability of the biomedical canon to address singly the wide spectrum of health problems of our time. This in turn has resulted in a renewed awareness of the necessity for greater emphasis on prevention, changing health behavior, and community outreach activity—the central focus of public health and the M.P.H. In the spring of 1986, therefore, seeing the necessity and the potential for the M.P.H. at VCU, the Dean of Medicine announced his intention to establish the program. A task force was then convened to oversee a series of feasibility studies and the drafting of the program proposal. The challenge now was to find a way to tease out of existing university elements thatcould be used to build a quality program to train public health professionals.

Assembling the Resources to Begin the Program

Within a few weeks of the announcement M.P.H. program development activities were launched. One of the first of these was to survey both campuses of the university and to make contact in the local and central offices of the Department of Health, local industry, and other health, safety, and human service agencies to find individuals with training, credentials, experience, and interest in working with us in the program. We were surprised to discover the large number of seasoned professionals in the medical center, on the academic campus, in public health practice, and elsewhere in the community who had a keen desire to become involved. Seventy-nine percent (188 of 238) of the individuals in the university who received our questionnaire reported that they were willing to work with our department in at least one of our M.P.H. related activities. In addition, we found 12 additional resident faculty holding M.P.H. or D.P.H. degrees and eight more adjunct faculty with at least one of them.

Many, particularly the professionals in state and local health departments, agreed to teach semester length courses, conduct seminars, give periodic lectures, serve on curriculum, admissions, and other critical committees, be advisors and preceptors for student field projects, and assist in the dozens of other tasks needed in a program short on resources. They were enthusiastic about volunteering their time and talent, hoping only, we later learned, for a highly coveted adjunct faculty appointment.

The next thing was to establish the feasibility of the program for the university administration, the Board of Visitors (trustees), and the State Council for Higher Education in Virginia. Studies initiated for this purpose documented the size of the applicant pool, the inaccessibility of other M.P.H. programs to Virginians, the relevance of the present library collection, the availability of computer facilities and related learning resources, the extent of available funds, faculty, and space.

In studying potential applicants, we found a large potential market of nearly 4,000 employees in state and local health departments, where very few of whom held the M.P.H. or a comparable degree. Moreover, some of their positions either required or would have benefitted from M.P.H. competencies. We also found evidence of a strong demand in other state and federal agencies, in private industry, and among other health professionals, including physicians in preventive medicine residency programs which require the M.P.H.

At the time of our inquiry, Virginia was the 13th most populous state and had no M.P.H. or M.S.P.H. program in any of its universities. Moreover, 10 of the then existing 24 schools of public health were located in states with lower population than Virginia. Massachusetts, with only 100,000 more people than Virginia, had three schools. These facts, obviously were compelling pieces of the argument to bring an M.P.H. program to VCU.

Next after consulting with the Council on Education for Public Health and dozens of people in established M.P.H. schools and programs, we wrote our own curriculum, incorporating the capabilities of faculty already in place in the Department of Preventive Medicine and our newly recruited army of volunteers. The program proposal was submitted and approved by State Council for Higher Education in Virginia in 1989. We accepted our first students in January of 1990.

The New M.P.H. Program

The Students. To date, our M.P.H. program has served three distinguishable groups. First are the seasoned health professionals—physicians, dentists, nurses, nutritionists, and health and safety professionals who wish to credential themselves to move into public health service, to advance in their present position, or add public health skills and perspective to their present practice. The second group consists of individuals with some work experience but without a health professional degree who want to improve their prospects for moving into health education, health promotion

and wellness, health research, health program development and project management, and similar activities. The final student group includes younger individuals, who, after only recently completing their undergraduate degrees, want to use the M.P.H. as a stepping stone for admission to a health professional school, often medical school or training programs for physician assistants.

Students in our program have included physicians in a variety of specialties (14% of our current students), medical students, physician assistants, dentists and dental students, hospital and clinic nurses, community health nurses, social workers, health educators, health and safety project managers, nutritionists and dietitians, industrial hygienists, safety and environmental engineers, sanitarians, health physicists, regulatory professionals, laboratory technicians, pharmacists, basic scientists, military medical and safety personnel, physical therapists, health care administrators and researchers, and an occasional faculty member from another institution.

The median age of our presently enrolled students is 34 years, and 67% percent are female. We take approximately 30 new students each fall and as of June, 1995, we have graduated 63. Between 60-75 students are active in the program at any one time. Despite rising tuition and other costs, 63% (42 of 67) of our present students are full-time although, in the past, more than half have been part-time.

Because much of the success in urban public health practice today hinges on having significant minority representation in the work force, we are especially pleased to see a recent increase in our minority enrollment, which rose from 25% during each of the last three years to 46% in fall of 1995. This trend is encouraged, among other things, by the fact that 39% of our core faculty are from minorities (31% African American) and all faculty are closely identified with projects thar are seen as especially beneficial to minorities. This, we think, sends an encouraging message about the intrinsic values of our program to minorities considering graduate opportunities at VCU.

The Curriculum and Faculty. Like other programs across the country, our degree calls for 24 credit hours in required core courses, nine hours of approved electives, and a three hour culminating experience or practicum designed to apply course work to a research project. At a full time pace, this 36-credit program could be completed in three consecutive semesters. We require no thesis. Most of the courses are offered in the early evening for greater accessibility for our professionals students.

Many of the institutions awarding the M.P.H. offer specialty tracts such as epidemiology, public health politics and policy, maternal and child health, health education and promotion, nutrition, chronic or communicable disease control, international health, or environmental and occupational health and safety. Other programs concentrate their resources on what is sometimes referred to as a "generalist" degree. Our program, for the moment, does not offer separate tracks. However, our

students can use their three elective courses and their practicum, a total of 12 credit hours, to accomplish approximately the same thing.

The M.P.H. program essentially operates with only five full-time equivalent (FTE) faculty, one of whom is the program director, and a full-time program coordinator. In addition, we have a cadre of eight core and 19 adjunct faculty, almost half possessing an M.P.H. or other public health degree. The remaining faculty have the highest degree in the area in which they teach in the M.P.H. program. Eighteen percent of the core faculty are female.

All of our faculty and students would, of course, prefer a more full-time equivalent faculty, staff, and support personnel. But these are the 90s and conditions compel us to reconfigure our FTEs, our joint appointment and adjunct faculty, and our departmental, grant, and contract support staff into a working whole.

The Metropolitan Community as a Laboratory. Before the M.P.H. program, there was no integrated structure or organizing principle for working from the medical center in the community on public health issues. The new M.P.H. created both a comprehensive vision and a means of legitimizing rewarding faculty and students for service to the urban community. The home department for the M.P.H., now named the Department of Preventive Medicine and Community Health, has become the organizational hub for a variety of new activities that encourage teaching, research, and service as a more integrated seamless activity.

Faculty links to the community involve consultation and leadership for program planning, grant writing, program evaluation, conducting small scale studies, scholarly lectures and presentations to lay audiences, sharing educational materials and scientific findings with the public, and providing continuing education for a multitude of different industrial, health, safety, and human service professionals. Our faculty, staff, and M.P.H. students have been involved in agencies that include different offices of the state departments of Health, Transportation, Motor Vehicles, Mental Health, Retardation, and Substance Abuse Services, Social Services, Youth and Family Services, Criminal Justice Services, Rehabilitation Services, State Police, as well as the statewide Area Health Education Center, federal and state environmental protection and occupational health and safety regulatory agencies, local health and police departments, a variety of minority health programs, local hospitals, clinics, and emergency medical services, inner city primary care sites, and the Survey Research Laboratory on the academic campus of the university.

Experiences for our students in the community may be paid positions, volunteer relationships, or culminating experiences or practicums for credit. All three involve supervision from our core or adjunct faculty, field preceptors, or others linked in some way with the M.P.H. program or the host department. Examples of just a few of our student projects include:

·an injury surveillance project at a recent national Boy Scout Jamboree;

·an analysis of data on injuries responded to by the city ambulance service;
·a state-wide PMS epidemiological survey;
·a detailed study of homicide victim charts in the medical examiner's office;
·editing the community newsletter for an inner city health care center;
·an analysis of air pollutants from local industrial facilities;
·a survey of lead concentrations in the soil in public and church playgrounds;
·an oral health assessment program at an inner city primary care facility;
·participation in a minority health internship in a local health department;
·working to improve the quality of data in the state head injury registry;
·a search for improved health status indicators for children and adolescents;
·working in a variety of HIV/AIDS programs and projects.

There is no reason to believe that any of these needed projects would have been initiated were it not for the M.P.H. program.

Reflections on the Impact of the M.P.H.

No academic or university administrator likes to think that they have created a program with fewer resources than it deserved. Consequently, several of us have been disturbed by the question—"Did we birth something that is inferior because we had to do it on the cheap?" But now that we have had an opportunity to look back on nearly five years of experience with faculty colleagues, graduates, students, and applicants, professionals and friends in the community, and more importantly, the community beneficiaries of the work of our graduates, we are convinced that we have done something special here at VCU. And the findings from our recent self study (prepared for our accreditation application) shows that, despite their concerns about the sparse resources, our students and graduates give our program essentially favorable reviews. They further report that they like the wide mix of different health, scientific, and other disciplines that we have assembled for them. But what they appear to relish even more are the program's ties to the community and the chance to learn from people doing exciting things in that community. Many speak enthusiastically about their personal experience in the community and about being in a profession that prides itself on concern and work with minorities and the underserved. In short, they view the M.P.H. program as an environment rich in opportunity and noble in its purpose. This has got to be good news to those who worry about the survival of our nation's cities.

Finally, the question arises—Is the M.P.H. experience at VCU unique? We think not. Instead, we have come to think that the M.P.H. is one very efficient way to organize activities and personnel to combine service to the urban community with the best of professional education, but that there is no reason to believe that this can be achieved only by metropolitan universities with academic medical centers. Po-

tential alliances exist within urban universities with departments such as health and physical education, community health, life sciences, statistics, allied health, social work, urban studies and planning, or social and behavioral sciences with community based hospitals, clinics, health departments, independent practitioners, workplace health programs, environmental regulatory agencies, and community health, social, and mental health agencies and nongovernmental organizations.

To the cynics, the future may not look so bright for the cities and the deteriorating districts of their suburbs, but my three and half decades around institutions of higher education has allowed me to observe how universities, even in the hardest of times, have always remained bulwarks against social and economic decline. Of course we recognize the bad news—we are in the post abundance era. But the good news is that now we are, out of necessity, learning how to coax and wheedle Peter to pay Paul. Thanks Pete!

Suggested Readings

Greenberg, Michael, Dona Schneider, and Jennifer Martell. "Health Promotion Priorities of Economically Stressed Cities." *Journal of Health Care for the Poor and Underserved*, 6 (1): 10-22, 1995.

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

Last, John M. and Robert B. Wallace (eds.). *Public Health & Preventive Medicine*, 13th edition. Norwalk, CT: Appleton & Lange, 1992.

Model Standards Work Group. *Healthy Communities 2000: Model Standards*, 3rd Edition. Washington, DC: American Public Health Association, 1991.

Novotny, Thomas E. and Cheryl G. Healton (Editors). *Research Linkages Between Academia and Public Health Practice*. New York, NY: Oxford University Press (Supplement to, *American Journal of Preventive Medicine,* v.11, no. 3), May/June 1995.

O'Neil, E. H. *Health Professions Education for the Future: Schools in Service to the Nation*. San Francisco: Pew Health Professions Commission, 1993.

Public Health Service. *Healthy People 2000: National Health Promotion and Disease Prevention Objectives*. Washington, DC: U.S. Government Printing Office, 1990.

Sorensen, Andrew A. and Ronald G. Bialek (eds.). *The Public Health Faculty/Agency Forum: Linking Graduate Education and Practice*, Final Report. Gainesville, FL: University of Florida Press, 1991.

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