

Confronting the Impending Public Health Workforce Crisis in America: Perspectives from Academia and Public Health Practice.

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The Problem

Reading the recent Institute of Medicine (IOM) report – *Who Will Keep the Public Healthy?* – one finds an emphasis on a number of relatively new areas of scientific knowledge that the IOM committee felt strongly needed to be included in the training of people working in public health. (IOM, 2003). The list includes informatics, genomics, communication (more than 50% of American homes are connected to the Internet now and increasing at 10% each year) and global health (IOM, 2003; National Cancer Institute, 2002). We learned recently in the news of children dying in Colorado of an extremely virulent influenza strain; a serious avian flu outbreak in Asia and more than 100,000 children on a waiting list for health care in Florida, many with chronic illnesses. These issues and the health effects of terrorism are serious challenges to public health now and for the foreseeable future. Much thought, effort, and funding have been focused on better preparation of the public health workforce to recognize and deal with these threats, but will we have adequate *numbers* of public health personnel to train and educate to respond to these issues in the future? In this commentary we argue that we are flirting with a dangerous situation in terms of numbers in the U.S. public health workforce and propose some short and long-term solutions.

Numbers and Projections

A recent project attempting to enumerate the U.S. public health workforce identified 448,254 persons in salaried positions, or one worker for every 635 persons in the U.S. (Gebbie & Merrill, 2001). Of these, 49,232 were nurses and 200,000 were employed by local governmental public health agencies. (Editors of the *Journal of Public Health Management and Practice*, 2003; University of North Carolina Institute of Public Health, 2003). The emerging crisis is evident as one looks at the estimates for retirement of this workforce. Either because of advancing age or the offering of attractive early retirement packages, it is estimated that 50% of *federal* health and public health workers will retire in 5 years (Partnership for Public Service, 2003). A separate report has valid estimates that 30% of the *state* government workforce will retire by 2006 (Council of State Governments, 2002). This

projection has implications, not only for state public health practitioners, but also for academicians because the majority of schools and programs of public health are state institutions. With the federal government and the majority of the states experiencing budget deficits, some severe, it is reasonable to assume that large numbers of these retirement vacancies will be frozen and not filled with new personnel for months or years, if ever (Trust for America's Health, 2003). Even if crucial positions can be filled, the federal (and some states) hiring system has recently been identified as being so lengthy and arcane that the "best and brightest" health people are lost to private industry.

Putting forth the optimistic assumption that many state and federal positions (including the public health-related private sector organizations) will remain open waiting to be filled, how can we recruit and retain the "best and brightest" people into our field? It seems obvious that the rapidly increasing complexity of the scientific background needed to address modern-day and future public health threats effectively will force us to recruit and retain people of much higher educational background than in the past, even (or perhaps, especially) at the entry level. All of the above issues will require responses that are substantially different than the way public health leaders, practitioners and academicians have approached them in the past. Following is a selection of approaches and short and long-term action steps collected from colleagues in local, state, national, governmental and private public health over the past year. We hope they will stimulate thoughts, other ideas, comment and feedback from the readers.

Short Term Solutions

Actions from Academia

A three-point program is proposed. First, strengthen the emphasis on public health practice in schools and programs offering graduate degrees in public health. There are at least six ways working in combination to accomplish this objective (points A-F below):

A. Advance the concept of the *Academic Public Health Department* working hand in hand with state and local health departments (Keck, 2000). Especially with a national trend toward a rapidly increasing number of public health students entering

MPH studies with no public health work experience, each student should expect to spend a significant amount of time in a governmental practice setting so they can be exposed to the excitement of a career in governmental public health. The state and local health departments should rapidly assume the same “practice site” role as hospitals have traditionally played for medical and nursing students.

B. Establish new dual and joint graduate degrees with the other health sciences, social and behavioral sciences, law, engineering, business, journalism and law enforcement, among others. These would provide richer background for future public health leaders to address increasingly complex problems.

C. In addition to the health departments, encourage faculty and students to foster collaboration for community-based research with Area Health Education Centers (AHECs), federal community health centers, historically black colleges, non-governmental organizations, private environmental firms, etc. This collaboration not only advances research but also, brings many of the employees of those agencies back for a public health degree.

D. Establish innovative articulation programs for people with health-related community college degrees (lab tech, nursing, radiation tech) to enter graduate public health programs, perhaps bypassing the baccalaureate degree.

E. Apply for more training grants and solicit more private funds to pay full scholarships for students, especially those already employed in governmental public health.

F. Use Welfare-to-Work monies to train grassroots community people for improved entry-level jobs that can be a stepping-stone to rise to higher-level jobs in the public health system. The Lawton and Rhea Chiles Center (LRCC) at the University of South Florida College of Public Health is partnering with Hillsborough Community College and St. Petersburg College to collaborate on the Maternal and Child Services Workforce Development Program and provide a certificate and Applied Technology Diploma to Family Support Workers. The Central Hillsborough Health Start Program through the Chiles Center trains doulas that have seen many of their numbers go on to advanced nursing and midwifery training.

Second, make more effort to introduce the exciting possibility of a public health career to students in grades K through 12, college undergraduates, and students in graduate programs other than public health (De Buono & Tilson, 2002). Third, schools and programs should increase offerings to undergraduate students, even if it is only an introductory course in public health. The goal

would be to recruit these students into the public-health graduate programs or to provide health departments with entry-level employees that have a baccalaureate degree with a health and biology background. Such a background could become the “gold standard” for entry-level public health workers.

Actions from Government

A four-point program is proposed. First, the Secretary of the U.S. Department of Health and Human Services (DHHS) should take a number of immediate steps to help ward off a crisis. This first step could consist of a series of actions (points A-D below):

A. Mount an extensive and multi-year marketing campaign along the lives of “Be All That You Can Be” (U.S. Army) to help glamorize and capture the excitement of public health and government service. A potential theme for that campaign is “Join the Revolution: Step Up to Protect America’s Health.”

B. Take the lead in using the agency to model reforms in streamlining federal hiring practices in all branches of DHHS (Partnership for Public Health Service, 2003).

C. Take steps to greatly enlarge, diversify and cross-train people for the U.S. Public Health Service Commissioned Corps. Corps members should not only have diverse racial, ethnic and cultural backgrounds but also be recruited from nursing, veterinary, public health, medicine, law, social work, engineering, law enforcement and other diverse backgrounds. The uniform should be worn at all times to increase visibility and recognition. Establishment of a Public Health ROTC in high schools and colleges could be a valuable recruitment and preparatory tool. The Secretary should direct the Health Resources and Service Administration (HRSA) to include public health education in the National Health Service Corps (NHSC) program that would carry a two-year pay back obligation in an underserved area.

D. DHHS should direct and fund its agencies to set up electronic job advertisements that would help make all health science students and faculty, government health workers and people employed in the health field in non-governmental organizations and related private sector jobs aware of all possible employment opportunities at all times.

Second, national public health organizations (APHA, ASPH, ASTHO, NACCHO, NALBOH) should work with the National Governor’s Association, the National Council of State Legislators and the National Association of Counties to effect state and local government hiring reforms similar to those identified above for the federal government (Council of State Governments, 2002).

Third, federal, state and local government, as well as academic institutions should recruit from groups already demonstrating an interest in public health and governmental service such as the Peace Corps, Americorps, Students Working Against Tobacco (SWAT), and other groups with public service missions and directives.

Fourth, in addition to the NHSC and ROTC ideas put forth above, new sources of funding need to be established for education, training, and life-long learning for public health professionals: (1) To support public health internships and residencies and post-doctoral traineeships in state and local health departments; (2) Loan forgiveness enticements for students (e.g. medical, nursing, law, anthropology) to obtain dual degrees with public health; (3) To address looming faculty shortages in schools and programs of public health with matching government and private foundation funding.

Long Term Solutions

Actions from Academia

Develop courses in a wide variety of formats (i.e., Web-based, and other distance learning formats) that will permit public health professionals to become proficient in new and evolving areas of public health practice (IOM, 2003). These courses should be credit earning and culminate in certificates, or a degree, if eventually sought by the learner.

Next, academic institutions should expand state, regional and national public health leadership programs. Finally, these institutions should minimize the duplication of offerings in the education and training of public health workers with a goal of reducing costs to students by increasing the efficiency and volume of program offerings.

Actions from Government

Governmental agencies should develop funding mechanisms for certificate programs with training credits, explore loan forgiveness options, and support scholarships or other tuition reimbursement initiatives. The current national and state focus on public health preparedness already has provided new money to fund such programs (Centers for Disease Control and Prevention, 2003).

Research is needed with respect to ideas to increase the tenure (i.e., “staying power”) of state health department directors. Their effectiveness with less than five years in office is arguable.

Beyond these suggestions, official agencies of public health should encourage employees to advance their education and training. How should they do this? Some possibilities include: offering financial incentives for higher achievement; providing release time during work hours; giving compensatory time for night and weekend courses; encouraging cross-

training in areas other than the employee’s original area of study; and creating identifiable and attractive career ladders.

Governmental agencies should explore establishment of national and statewide fiberoptic connections to reduce costs of education and training and address expensive duplication of programs. Such possibilities as this are already in existence in India, so it is not beyond the scope of what can be accomplished by the United States with its level of resources.

Government must address the issue of pension portability for governmental public health professionals at federal, state and local levels, so that public health leaders can move easily from state to state, and thereby, serve as sources of innovation and improved practice without having to defect to the private sector (Millbank Memorial Fund, 1996).

Lastly, government should attempt to use the trauma center model of “constant training and perpetual readiness” as a rallying cry to assure timeless competency for the public health workforce.

Over-arching Actions

Public health suffers from a lack of ability to track and enumerate the public health workforce longitudinally. This inability became painfully apparent after the attacks of September 11, 2001 when police and fire could immediately calculate the need for extra personnel (at Presidential request) and public health could not (M. Achter, personal communication, July 2002). Public health should establish a tracking system based on the successful health-tracking model developed by the Center for Studying Health System Change (i.e., *Health Track*) funded by The Robert Wood Johnson Foundation. *Health Track* has followed a cohort of bellwether U.S. communities since 1995 to give in-depth reports on changes in the U.S. health care system and the effects of those changes on health care services (Ginsburg, Hughes & Knickman, 1995)) A similar system could be used to track the public health workforce in selected states prospectively as a measure of its readiness to respond adequately to future public health challenges or emergencies.

Work has already been started by the Association of Schools of Public Health to establish a national board exam for recipients of the Masters in Public Health (MPH) degree (H. Spencer, personal communication, November 2003). Whereas credentialing has been controversial historically, the fact is that public health practice (that is, all of public health except schools and programs of public health, which have an accreditation process through the Council on Education in Public Health) is the only health field in the U.S. without some system of

credentialing. In 1986 the Carnegie Task Force on Teaching as a Profession found school teachers in the same situation and recommended credentialing as a concrete way of elevating the status of teachers and improving their income. The National Board for Professional Teaching Standards (NBPTS) has established a national, voluntary system to assess and certify teachers. The NBPTS has received over \$110 million in funding to put the program in place, 48% from the U.S. Department of Education and the National Science Foundation, and 52% from private foundations (NBPTS, 1999). This same opportunity is available for public health workers if leadership is forthcoming to move in that direction.

Conclusion

There is compelling evidence that serious depletion of critical human elements of the public health workforce will begin occurring in the next few years. The action steps proposed above were collected from public health professionals throughout the U.S. representing governmental, private and academic viewpoints. The authors would welcome critique of the above ideas, new ideas and thoughts on priorities for actions. The national public health organizations are actively working on this problem and need your input now.

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Editor's note: The *Florida Public Health Review* welcomes electronic e-mails regarding the above article, will publish the best ones and will attempt to provide a forum for discussion on the subject of workforce development in public health. Longer commentaries such as the one provided here by Dr. Mahan and Dr. Malecki also can be considered. E-mail and commentaries should be sent to rmcdermo@hsc.usf.edu. – RJM