



Public Health Workers Needed Educational Programs Grow as Shortage Looms

BY SUSAN C. THOMSON, M.A., M.B.A.

Until nearly a century ago, public health was largely a colony of medicine, populated by physicians focused on the health threats posed by lax public “sanitation” and deadly epidemics of the likes of cholera, yellow fever and smallpox.

As preventive measures like vaccinations, antibiotics and better sewage treatments combined to eliminate those scourges of old, new diseases and public health concerns kept coming along. The field changed and matured, eventually becoming a subject of study all its own, distinct from medicine.

The modern era of U.S. public health is seen as having begun in 1915 when a report, co-authored by a Rockefeller Foundation official and a Johns Hopkins University physician, set the stage for a spin-off that began a year later when the university established the first U.S. graduate school of public health. Since then, other universities have followed suit, establishing their own accredited public health schools at a recently accelerating rate and bringing the total to 49 by 2012. Twenty of the schools have been established since 2000.

This recent boom reflects a growing demand for the personnel required by a field that has grown and broadened while differentiating itself. The supply, however, has for years fallen increasingly short of the needs, and recent cuts to the budgets of governmental public health agencies have only widened the gap. Although the Affordable Care Act theoretically provides some funds for these agencies and public health education in

general, how much money will actually be forthcoming is unclear.

Public health schools enrolled 28,446 students in the fall of 2011, 73 percent more than 10 years before, and awarded 9,717 degrees in the 2010-2011 academic year, a 69 percent increase in a decade, according to the latest figures from the Association of Schools of Public Health (ASPH).

The association’s data show further that over those same years, the two-year master’s degree in public health accounted for about 60 percent of all the degrees the schools granted. Students earn it by concentrating in biostatistics, epidemiology, health services administration, environmental sciences or health education — studies the schools must offer in order to win accreditation from the Council on Education for Public Health. Many schools also have additional programs in, for example, occupational health, community health and mental health.

The growth, measured in enrollments and graduations, is a function of the increasing number of schools as well as the ongoing expansions of many of them. Saint Louis University’s School of Public Health, for instance, opened in 1997. By 2010-2011, it had expanded to enroll 346 students and graduate 137. It is poised to add degrees in



global health and maternal and child health in 2013, when it will take the even bigger and unprecedented step of merging with the university's School of Social Work to form the new College of Public Health and Social Justice, with more than double the enrollment of the current public health school by itself.

School of Public Health Dean Edwin Trevathan, MD, who will also oversee the new college, said it makes sense to add social work to the public health equation: "If you want to improve the health and well-being of a community, the only way you do it is to improve the health status of the most vulnerable in the community" — the people with whom social workers typically interact.

The unique new college will add one more distinction to the nation's only public health school at a Catholic university. The two are a perfect match, Trevathan said. "Looking at public health through the lens of social justice is very consistent with our Jesuit, Catholic mission," he said. "We want to make sure we do everything we can to address inequities in the community and help people help themselves. ... We want [our students] to go out and make a difference in the world."

The burgeoning of graduate level, professional public health studies has gone hand-in-hand with an even faster-expanding vision of public health's mission. The field is still about communicable diseases — especially new ones like HIV/AIDS, H1N1 flu and West Nile virus that keep popping up, seemingly out of nowhere, and demanding immediate attention. Meanwhile, public health also has come to be just as much or more about chronic and no less debilitating conditions like diabetes, asthma, kidney disease, heart disease, high blood pressure and obesity.

The field encompasses unhealthy personal behaviors like alcohol and drug abuse, smoking, overeating and teen drinking and driving. Its portfolio has expanded further to include all of the menaces to health from today's natural and built environments, such as air and water pollution, along with natural

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disasters like hurricanes and tornadoes and man-made ones like accidents, gun violence, terrorism and war. In the 21st century, any event, illness or trend that ails or undermines the physical well-being of any size population group, local to global, comes under the purview of public health.

This huge and diffuse agenda is being advanced by physicians, nurses and the new breed of university-trained public health specialists, with input from such non-health professionals as social workers, research scientists, lawyers, business people and public policymakers. They work mostly outside of hospitals — in, for instance, universities, private charities, health advocacy groups and legislative bodies. They also work in governmental agencies, notably state and local health departments, whose staffs also include such workers in the field as restaurant inspectors, animal control officers and health educators.

The Public Health Foundation is a Washington, D.C.-based nonprofit organization that provides training and other consulting services to public health systems. It takes a special interest in the public health work force, especially at the state and local levels. Ron Bialek, the organization's president, estimated that, of the roughly half-million employees of the nation's 2,800 to 3,000 state and local health departments, only 10 percent to 15

percent begin with any kind of public health education. So, of necessity, on-the-job training is the rule in these departments — to the extent that funds to do it remain available to do it after five years of substantial state and local budget cuts, he said.

Budget axes have also taken their toll on such agencies' staffs and programs. Fifty-seven percent of respondents to a survey the Washington, D.C.-based National Association of County and City Health Officials conducted in early 2012 reported having to cut one or more programs in 2011, with clinical health services, emergency preparedness and maternal and child health taking the biggest hits. The survey also found that 40,000 city and county health positions were lost from 2008 to 2011.

The cuts come atop worker shortages existing before the recession even hit, Bialek said. The overall professional public health work force shrank by 50,000 workers from 1980 to 2000, according to the ASPH.

The association sees a crisis in the works, estimating that by 2020, the professional public health work force will lack about 250,000 people, or one-third of the numbers needed just to keep pace with retirements of current workers, the growth and aging of the U.S. population and existing and emerging public health needs. To keep up, the nation's schools of public health would have to triple their numbers of graduates, according to the association, which has called on the schools to build their capacities by, among other measures, increasing public health education at the undergraduate level.

The call has been heeded, and undergraduate studies have become the hottest current trend in public health education. Schools of public health are no longer exclusively graduate schools, limited to master's and doctoral degrees. Most now offer undergraduate programs as well, says Richard K. Riegelman, MD, founding dean of the George Washington University School of Public Health and Health Services in Washington, D.C., and now a profes-



sor of epidemiology and biostatistics there. The field is exploding so fast, he said, that some 300 U.S. colleges and universities now offer undergraduate minors and majors in public health, and many more, including community colleges, offer at least some introductory courses. “Very often, these courses are oversubscribed,” he added.

Riegelman sees undergraduates driving the trend out of “a very impressive convergence of pragmatism and idealism,” their desires to not only get jobs but also “to do good,” he said. The field really resonates with them, he added.

Saint Louis University’s School of Public Health has witnessed the same kind of demand. Three years after introducing undergraduate studies, Trevathan said, he estimates the school has more than 100 undergraduate majors and more than 1,000 other students taking occasional classes.

The school offers bachelor of science degrees in public health and health management, both leading to master’s degrees in those fields with one more year of study, plus a bachelor of science in emergency management and an undergraduate minor in public health.

Undergraduate work is now part of what is now being widely envisioned as a desirable “continuum of public health education” going forward. The ASPH

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has endorsed the concept with an initiative it is calling “Framing the Future; the Second Hundred Years of Education for Public Health” and a related task force it has charged with making recommendations for a comprehensive approach to public health education from undergraduate to doctoral studies. Even associate degrees “are beginning to be on the agenda,” Riegelman said.

This vision of an all-embracing approach to the subject harks back to a 2002 report on public health education by the Institute of Medicine (IOM). Titled “Who Will Keep the Public Healthy? Educating Public Health Professionals for the 21st Century,” it posited that, over the next five to 10 years, all U.S. public health workers would need additional training in light of globalization, medical advances and growing population diversity.

While acknowledging a role for certificate programs, short courses, continuing education programs, conferences, workshops and institutes offered by a variety of organizations, the report described the responsibility for public health education ideally as shared by the schools of public health, other schools and governmental public health agencies.

The report said the “primary educational mission” of public health schools should be the preparation of public health leaders and managers, and it recommended that their training be broadened to include “informatics, genomics, communication, cultural competence, community-based participatory research, global health, policy and law, and public health ethics.”

It called on medical and nursing schools to incorporate public health into their curricula. While noting that most are hampered by lack of resources, it described governmental health agencies, the front line in the delivery of many public health services, as having a major responsibility for public health education.

The 2010 Patient Protection and Affordable Care Act (ACA) implicitly endorses an even bigger role for pub-

lic health in the U.S. health care system by expanding coverage to millions of the formerly uninsured and emphasizing disease prevention and health promotion.

The ACA also created the Prevention and Public Health Fund, a dedicated stream of \$18.75 billion to be used between 2010 and 2022 for grants to governmental health agencies to increase preventive health programs and to local and state governments to respond to public health emergencies. Of the total, a relatively modest \$23 million was marked for public health education, \$15 million of that for public health training centers. Since their inception in 2000, there have grown to be 38 of these federally funded centers scattered across the nation and associated with public health schools, public health agencies and other schools and organizations. Working with government agencies, professional organizations and each other, the centers develop programs, including distance learning, tailored to the educational needs of local public health workers.

The public health fund’s annual outlays are subject to the appropriations process, and earlier this year Congress and the White House agreed to strip the total by one-third, or \$6.25 billion, and use that money immediately to help forestall pending cuts in Medicare payments to physicians. It remains to be seen how much of the ACA’s public health education pieces will eventually be funded.

“Money will be very tight, and I suspect funding will be very slow to come,” said Georges C. Benjamin, MD, executive director of the American Public Health Association, whose members include public health providers, educators and officials. If the money is forthcoming, however, “the impact would be enormous ... a long-term investment in building the [public health] work force for the future,” he said.

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