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Dean, UCLA School of Public Health

# 21st Century Challenge: Educating the Public Health Workforce

## MAJOR RESPONSIBILITIES FOR SCHOOLS OF PUBLIC HEALTH:

- Educate the educators, practitioners, and researchers as well as prepare public health leaders and managers
- Serve as a focal point for multi-school trans-disciplinary research as well as traditional public health research to improve the health of the public
- Contribute to policy that advances the health of the public
- Work collaboratively with other professional schools to assure quality public health content in their programs
  - Assure access to lifelong learning for the public health workforce
  - Engage actively with various communities to improve the public's health

— as concluded by  
the Institute of Medicine's Committee  
on Educating Public Health Professionals  
for the 21st Century, 2003

Public health initiatives of the 20th century –

from sanitation and immunization to tobacco control – have been remarkably successful in enhancing the quantity and quality of lives. But at the dawn of a new century, public health threats loom as large as ever – from AIDS, Ebola and West Nile virus to the epidemic of obesity and the threat of bioterrorism. Moreover, the task of protecting and promoting the public's health is made increasingly complex by developments that include globalization, scientific and technological advances, and changing demographics. Both nationally and in California, this has led to a serious examination of the public health workforce and how to ensure that it is prepared to address the many challenges it faces.

As an educator of future public health leaders and a resource for providing continuing education and training to the current workforce, schools of public health such as UCLA's are playing a central role.

“The extent to which we are able to address these challenges and make additional improvements in the health of the public depends in large part on the quality and preparedness of our public health workforce, which, in turn, depends on the relevance and quality of public health education and training,” says Dean Linda Rosenstock. “Unfortunately, there is a several-decade history of underinvestment in professional training of the public health infrastructure. Now, there is a realization that we need to do things differently.”

Rosenstock recently co-chaired an Institute of Medicine committee charged with developing a framework for how education, training and research can be strengthened to better assist public health professionals in improving population health. The committee's recent report, *Who Will Keep the Public Healthy? Educating Public Health Professionals for the 21st Century*, found that only a fraction of the nation's 450,000-plus public health workers receive formal public health training – and suggested specific ways to improve public health professionals' capabilities to handle new and complex challenges.

“Public health professionals need a framework for action and an understanding of the ways in which multiple factors – such as education, housing, employment and health care – affect the health of individuals and their communities,” says Rosenstock. “Our training needs to keep pace with a rapidly changing world, whether due to globalization, technological advances or demography.” Her committee further argued that other health professionals, including all of the nation’s physicians, should receive core public health training.

California faces particularly daunting challenges, with a fast-growing elderly population, tens of thousands of people living with AIDS, several million having been diagnosed with asthma or diabetes, and more than 6 million lacking health insurance and/or access to needed health services.

“The IOM report raises worrisome concerns about the training of the nation’s and California’s future public health professionals,” says Sen. Jack Scott (D-Pasadena), who chairs the California State Senate Budget Committee on Education. “Preventive public health interventions are incredibly cost-effective compared to dealing with problems once they have happened. If the last 20 years of epidemics have taught us anything, it is that scrimping on educating a skilled public health workforce is shortsighted and a serious mistake.”

As part of its ongoing process of evaluating system-wide professional education needs, the UC Office of the President (UCOP) recently convened a task force to study the demand for public health education in the state; a final report was being prepared as this issue was going to press. The task force reviewed data strongly suggesting that the state’s public health workforce faces both shortages and deficiencies in training and continuing education opportunities.

“There is clear evidence of a need for increased training in public health in California,” says Dr. Gerald Kominski, associate dean for academic programs at the school and a member of the UCOP task force. Among other things, he notes, California has fewer public health professionals as a proportion of its population than other large states.

The committee’s background work also points to the need for improved education in the area of cultural competency. Underrepresented minority groups are negatively affected by widening health disparities, often resulting from cultural and linguistic barriers. “The demographics in California are such that it is particularly important to have a public health workforce trained to communicate effectively with a diverse population,” says Kominski.

Kominski also believes the state’s schools of public health should expand educational opportuni-

ties offered to the current workforce, particularly in the area of short-term, targeted training. “We’ve learned through the efforts of the committee and other sources that there is a tremendous demand and unmet need for specialized, so-called certificate training in areas such as health care administration and management, epidemiology, and specific aspects of environmental health sciences,” he says.

A major effort to develop and support effective public health training opportunities addressing community health needs is being undertaken by the Pacific Public Health Training Center (PPHTC), a consortium led by the UCLA School of Public Health that includes California’s four schools of public health and the University of Hawaii, funded by the federal Health Resources Services Administration.

After spending much of its first year examining the two states’ public health training needs and how to deliver them most effectively, the PPHTC has focused on meeting some of these needs through both face-to-face and distance learning initiatives. Trainings have been both statewide – last fall, for instance, a two-day program in epidemiology was



held for health officers in California – and regional, including a series of environmental health trainings throughout the state and a number of activities aimed at assisting rural health departments.

“The training sessions are very practice- and learner-focused, identifying specific outcomes and objectives that the participants want to achieve to improve the way they do their jobs,” says Dr. Michael Prelep, assistant professor of community health sciences and the UCLA School of Public Health’s lead faculty representative on the PPHTC. Faculty at all five universities have participated in the design and delivery of training. “The health officers of California and Hawaii see the faculty resources as a great strength in working with the Pacific

**The UCLA-Fogarty Training Program in Occupational and Environmental Health prepares scientists from Mexico in environmental and occupational fields. Above, program participants are trained in an instrument used to measure air particulate matter.**

**The school's Center for Public Health and Disasters provides specialized training in disaster preparedness, including last year's Orange County Operational Area Biological Tabletop Exercise.**

Health Training Center," says Prelip. "Considering the collective experiences and knowledge of the faculty at these schools, they feel like they can 'go to the well' and get whatever they need."

More intensive education of the current public health workforce is provided by the school's two executive M.P.H. programs, which are aimed at mid-career, full-time working professionals. Two programs are offered: one in health services management and one in health education and health promotion.

Several of the school's programs also offer training to meet specific workforce needs. The Center for Public Health and Disasters (CPHD) was recently designated by the Centers for Disease Control and Prevention as an Academic Center for Public Health Preparedness, part of a collaboration of schools of public health, government agencies and state and

of HIV/AIDS for health professionals from China, Vietnam, Cambodia, Myanmar and India, and in special circumstances for health professionals from Laos, Thailand, the Philippines and Indonesia. In addition, the UCLA-Fogarty Training Program in Occupational and Environmental Health was established to provide training to graduate students from Mexico in environmental and occupational health fields.

Several philanthropic efforts are enhancing the school's ability to meet the growing need for public health professionals who will work in underserved areas. The Health Disparities Prevention Project, funded by The California Endowment, is designed to strengthen academic-based research activities in health promotion and disease prevention among at-risk communities of color in Los Angeles, and to improve training of health professionals, students and other community health workers focused on reducing disparities of health status. In addition, a grant from the California Wellness Foundation as part of its Diversity in the Health Professions initiative offers significant support to students committed to working in underserved areas. Finally, the Monica Salinas Internship Fund in Latino and Latin American Health provides fieldwork support to public health students whose work focuses on Latino and Latin American health and well-being.

The school has also brought public health education at UCLA to a new audience, undergraduates, with the addition of the Public Health Minor. Each year, 50-60 undergraduates take the minor's core course, which is taught as a collaborative effort by many of the school's most prominent faculty members. "A lot of these students have no idea what public health is, or have misconceptions about what public health does," says Dr. Susan Sorenson, who has taught the introductory course for the last two years. "By exposing them at the undergraduate level, we can encourage some to enroll in graduate public health education when they might not have otherwise considered it. And for those who will go on to pursue medicine or other health careers, we can provide a broader view of health that will also be beneficial."

As critical health threats have thrust public health into the spotlight, there appears to be strong support for making the necessary investments in improving public health training.

"At no time has the mission of promoting the public's health and safety resonated more clearly with the public and the government than now," says Rosenstock. "To improve health in our communities for the 21st century, we must seize this opportunity and make sure our public health infrastructure consists of high-quality and well-educated public health professionals."

local public health departments to coordinate preparedness of the public health workforce by addressing training needs in bioterrorism, infectious disease, and other public health threats and emergencies, and improving the ability of front-line public health workers to respond to current and emerging public health threats. CPHD offers on-site training for local and state health agencies in California, Nevada and Utah, and designs and conducts exercises as well as providing technical assistance for health departments. Similar efforts occur under the auspices of the Southern California NIOSH Education and Research Center, based in the school, which serves as one of 16 multidisciplinary centers in the United States supported by the National Institute for Occupational Safety and Health.

Meanwhile, two of the school's training programs, both sponsored by the Fogarty International Center, are helping to meet international public health needs. The UCLA/Fogarty AIDS International Training and Research Program provides training leading to M.S. and Ph.D. degrees in epidemiology

