# From the Schools of Public Health

ASPH
ASSOCIATION OF SCHOOLS OF PUBLIC HEALTH

## A REFLECTION ON THE REALITIES AFFECTING GRADUATE SCHOOLS OF PUBLIC HEALTH AND IMPLICATIONS FOR EDUCATING PUBLIC HEALTH PROFESSIONALS IN THE 21ST CENTURY

Harrison Spencer, MD, MPH, President and CEO, Association of Schools of Public Health, represented the association in March 2002 before the Institute of Medicine (IOM) panel on "Educating Public Health Professionals for the 21st Century." The panel was formed to examine current education and training for public health professionals.

Harrison Spencer, MD, MPH

The recommendations of the 1988 IOM report, "The Future of Public Health," prompted a national discussion about the status of public health and how graduate schools of public health (SPH) contribute to a trained workforce. Dr. Spencer, in his testimony, highlighted four areas in which schools have responded: education and training, curricula, research, and administration and policy. ASPH would like to acknowledge the ASPH Council of Public Health Practice Coordinators, represented by Mike Maetz, Beth Quill, Chris Atchison, Antigone Vickery, and Liz Weist, for their contribution towards this document.

The following abridged version of Dr. Spencer's testimony highlights progress and provides an overview of realities and challenges accredited graduate SPH face in the 21st century in educating public health professionals.

### REALITIES FOR THE ACCREDITED SCHOOLS OF PUBLIC HEALTH

*Harrison Spencer, MD, MPH*

The 31 Schools of Public Health (SPH) are the primary educators of public health professionals in this country, a necessary and available resource for federal, state, and local health agencies. Schools of Public Health continue to provide significant numbers of trained professionals to the workforce, and this training capacity is increasing. Research findings from SPH continue to provide the base upon which the best public health practices are founded. The Association of Schools of Public Health (ASPH) has grown by six schools since 1995; there are also a number of institutions on their way to becoming schools in the near future. ASPH's most recent analysis indicates that member schools launched nearly 6,000 master's and doctoral students into the workforce in the year 2000—nearly a 70% increase from 1988.

*Educating students for the range of careers they pursue upon graduation is a major challenge for SPH.* ASPH estimates less than a third of current graduates go directly to work for government public health agencies. The pressure for Schools of Public Health to define public health education on the basis of state and local health agency needs alone, consequently, results in an immediate tension since graduates aiming to work in the public sector are in the minority.

*Education in SPH is aimed at master's—particularly Master's in Public Health (MPH)—and doctoral-level training.* The 31 accredited graduate Schools of Public Health educate *both* emerging and practicing public health professionals. Despite emphasis on training master's and doctoral students for practice, schools' agendas are increasingly focused on bridging baccalaureate programs as well as training practitioners and non-traditional learners.

*Schools of Public Health and their graduates conduct multidisciplinary research and interventions to acquire new public health knowledge.* This research provides a scientific foundation to public health activities and, in itself, fulfills a vital public health function. All SPH carry out research and many are part of research universities. Schools of Public Health conduct applied, interdisciplinary, and fundamental research. They represent a unique type of academic institution in which students can pursue their education with an extraordinarily multidisciplinary range of faculty including biomedical scientists, social scientists, economists, epidemiologists, biostatisticians, managers, health service researchers, and health educators.

*Schools of Public Health incorporate whole-person, prevention, and population-based health perspectives, and partner closely with communities in research, teaching, and service.*

Diversity is a fundamental principle within SPH research, education, and service programs. Consequently, Schools of Public Health are equipped to work effectively across the health sciences and collaborate with the social sciences, law, criminal justice, and other fields. The result is a more successful combination of the "science and art of preventing disease, prolonging life and promoting health through organized community effort" (to quote C.E.A. Winslow), a paradigm unique to SPH.

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*Schools of Public Health are major resources for global health education and research.* Many Schools of Public Health have global health departments or centers. They train students from throughout the world; for example, Jae Chang Song, the Deputy Minister of Health in Korea, graduated with an Master's in Public Health (MPH) from one of our Schools of Public Health last year. In addition, many U.S. students specialize in global health, and a number of SPH have internationally collaborative research programs.

*Adequate, sustainable funding for practice activities in research, professional education, and service within SPH remain elusive.* Most practice programs at SPH piece together numerous funding sources. This reality needs to be addressed structurally. It is not the will that is lacking, but often the means. To achieve structural change, close collaboration with practice partners is essential.

## CHANGES INFLUENCING SCHOOLS OF PUBLIC HEALTH AND HOW THEY TEACH

A quiet evolution is taking place in Schools of Public Health. The major changes are:

**Increasing diversity of careers**

Professional careers of graduates are rapidly expanding. Most no longer go to work in health departments. Public health work is ubiquitous, and large numbers of professionals with graduate public health training work in community-based organizations, not-for-profit agencies, hospitals, business, non-governmental organizations, health systems, the insurance industry, high-tech operations, and other sectors. A continuing challenge in Schools of Public Health is to gain more understanding of where graduates practice, analyze job trajectories, and then refine the way we prepare students for successful practice in the "real world."

**Demographic shifts in student composition**

Students seeking training in public health are diverse regarding ethnicity, race, age, and culture. Women represent over two-thirds of matriculates, a higher proportion of students are minorities, more students are pursuing their degrees on a part-time basis, and increasing numbers of international students are enrolling in Schools of Public Health.

**Increased interdisciplinary and interpersonal opportunities for public health**

Public health professionals interact closely with health sciences professionals and others whose primary goals may seem distal to public health. For example, the recent anthrax incidents compelled public health leaders to work closely with the U.S. postal system and the FBI. Interpersonal communications skills and employing team approaches to decision-making and problem solving are increasingly important.

**Advancements in practice paradigms**

Social and behavioral sciences and epidemiology are expanding as a result of research advances and improvements in methodologies. The massive explosion of health in the U.S. economy has increased health policy and management studies. The legal, ethical, and social issues attending new findings, such as in

genetics, are profound. Ensuring community involvement in decision-making—the hallmark of the public health process—is becoming an even more important, sensitive, and complex endeavor. Attending the exponential growth in the availability of information is the need for people to sort it out, be more analytical in their use of it, and apply it more effectively in problem-solving. Ultimately, cultural and technical competency is a critical skill for all public health practitioners, particularly as the diverse U.S. society evolves.

**Competency-based education**

Increased focus on defining core competencies for public health practice has spurred ASPH to create a competency development project for emerging health professionals trained at Schools of Public Health. Resulting areas of competence as defined by the work group will describe core skills needed by MPH graduates beyond their particular disciplinary focus and will build on competencies from other groups such as the Council on Linkages Between Academia and Public Health Practice.

## ASPH RESPONDS: PROGRESS IN MEETING THE INSTITUTE OF MEDICINE (IOM) RECOMMENDATIONS

Since the 1988 Institue of Medicine (IOM) report, ASPH has made enormous progress in connecting with agencies and other partners and making curricula and research more relevant to rapid changes in public health.

Many new activities resulted from the efforts of the Johns Hopkins Bloomberg School of Public Health in the development and implementation of the "Public Health Faculty/Agency Forum," which was funded jointly by the Health Resources and Services Administration (HRSA) and CDC. The Forum prioritized actions to remedy the reported "disconnect" between public health academe and practice in 1991. The report's recommendations have since been addressed by most Schools of Public Health.

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## EDUCATION AND TRAINING—INNOVATIONS AND NEW PARTNERSHIPS

Schools of Public Health have made progress in developing solid practice experiences and comprehensive curricula. They engage with other disciplines and non-academic partners to round out traditional classroom-based learning and apply academic knowledge to learning needs articulated from the field. Examples include internship and fellowship opportunities for students, the development of distance learning and continuing education modules for non-traditional learners, leadership institutes and centers for workforce and bioterrorism training.

## CURRICULA—FORESIGHT AND RESPONSIVENESS

Public health is rapidly changing and important new issues appear quickly. SPH need to adapt and to provide new curricula to meet these challenges:

- New curricula for new times: bioterrorism, genetics, and informatics examples;
- Accreditation changes to keep abreast of the evolution in graduate public health education.

## RESEARCH—THE CHALLENGE

Research at Schools of Public Health is a critical component of their mission. SPH are a unique national resource with their research emphasis on public health research and its translation into practice settings.

While the National Institute of Health (NIH) bench science model still drives much of the highly valued research at schools of public health, progress has been made in garnering NIH and foundation support for applied research in epidemiology, behavioral sciences, health policy, and environmental health. Limited fiscal resources, however, often make it difficult to mobilize and sustain research articulated by the practice sector and communities of need. Only a small percentage of government-funded research is focused on population-based prevention research. Such an imbalance defies peer-reviewed findings suggesting that prevention activities in most instances are far more effective than medical treatment in improving health. Therefore, ASPH has been actively engaged in promoting population-based and behavioral research at government agencies and working to stimulate resources directed to the following areas:

- Translation of basic science into applications that improve human health;
- Research that operates at the level of the whole person, prevention, population, and communities; and
- Eradication of the great health disparities between subgroups of the population.

### Health disparities research

Under the leadership of Dean Scrimshaw, ASPH has undertaken a major program to increase the research on health disparities conducted at schools. This year, a special supplement to *Public Health Reports*, co-edited by a public health academic and a public health practitioner, will highlight some of the effective methodologies and outcomes of health disparities research conducted jointly by schools and communities.

### Public health systems research

Health services research is a well-recognized area of scholarship within schools of public health; however, its focus has been on the clinical aspects of health care delivery as opposed to research on the public health system. While attempts to answer specific questions related to public health's capacity in terms of data systems and workforce structure have been undertaken, a growing need exists to expand the body of public health systems research. Increasingly, schools and health agencies are asked to measure and evaluate the public health infrastructure's use of resources and the outcomes from those uses. The W. K. Kellogg Foundation has recognized the need for funding partnerships such as "Turning Point" that aim to improve the public health system; however, this area needs more development, recognition, and institutionalization within academic and practice communities.

### CDC Prevention Research Centers

One successful model for applied population-based prevention research is the CDC Prevention Research Center (PRC) program that currently funds 26 academic prevention centers, 20 of which are housed in schools of public health. These centers establish graduate programs in prevention research through partnerships with other health professions schools, industry, and the community. Community and research partners work together to develop programming and try to identify the successful aspects of the research project that can be disseminated to other communities.

The PRC plays a leading role in translating bench and clinical research findings into practice in complex and diverse community settings. This kind of research, which adapts, refines, and demonstrates the effectiveness of community interventions, is making

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major contributions to our understanding of mechanisms for improving the health of populations.

**Other SPH-based research centers**

ASPH is also advocating new and sustained support for a host of other specialized research centers at schools of public health, including:

- Education Research Centers (NIOSH), which conduct research and training and make recommendations for the prevention of work-related illnesses and injuries;
- Centers for Excellence in Health Statistics (NCHS), which improve data collection systems to help develop and evaluate prevention programs;
- Injury Research Centers (NCIPC), which fund and monitor research in three phases of injury control: prevention, acute care, and rehabilitation;
- Centers for Genomics and Public Health (NCEH), which study all elements of our human genome and how they relate to human health and disease;
- Public Health Research and Education Centers (PHRECs) within the Veterans Administration that will conduct research, education, and outreach on health promotion and disease prevention activities for veterans;
- Centers of Excellence in Environmental Health (NCEH), which partner with state and local health departments, will develop state-of-the-art environmental health programs based on the 10 Essential Public Health Services.

Overall, ASPH can proudly admit some accomplishments in the last decade, and will continue to build on this foundation. The schools have:

- Increased the number of graduates with practice experience;

- Enhanced interdisciplinary linkages;
- Expanded uses of technology to assist in research, teaching, and service;
- Built mechanisms for providing ongoing training for working professionals;
- Increased the quantity and quality of academic-community interactions through community outreach projects;
- Developed pipeline activities to diversify the field of public health;
- Produced innovative curricula that respond to new public health imperatives;
- Advanced scholarship in practice, including models for faculty rewards systems;
- Increased the dissemination of academic research, teaching, and service models within schools and in the field that utilize practice;
- Increased the recognition of workforce and leadership development;
- Expanded methodologies for conducting applied and practice research in communities;
- Responded to new demands to change the way that universities operate in relation with their surrounding communities through policy changes and a more supportive SPH infrastructure;
- Launched new education and research centers which are based on close ties between schools and practice and community partners;
- Begun development of core competencies that will better assure that MPH graduates are prepared for practice;
- Begun exploration of a public health credential that would better define the public health professional and bring greater appreciation, visibility, and professionalism to the workforce.

## THE FUTURE FOR SCHOOLS OF PUBLIC HEALTH

The message from ASPH is clear. We are moving ahead and solving contemporary intellectual and practice problems with a broad array of partners, in a situation of very limited resources. Our new vision statement highlights the way that SPH see their role in the new millennium. We are:

> Creating global leadership and innovations to promote health, to prevent disease, disability and injury, and to improve health systems and services.

The new mission statement recognizes the core activities of Schools of Public Health and the role of ASPH in enhancing those efforts:

> To strengthen, coordinate, and promote the education, research, and service activities of accredited SPH.

We hold true to the traditional, university-based mission, holding us accountable for teaching our graduate students using theoretical research foundations. Schools of Public Health are responding to changes in the workforce and the health needs of the public by transforming education and training, curricula, research, and administration and policy to ensure that graduates are ready for practice in the new millennium. There are many opportunities to explore to improve upon these efforts, and this requires adequate resources for the task and stable funding for its practitioners.

ASPH has an ambitious plan for the future and will need assistance to accomplish it. While American expectations for good health have continued to grow since the 1988 IOM report and pressures on SPH have increased, resources have not and this must change. Schools of public health will continue to take pride in these efforts, which we believe have played a part in contributing to the health of the public.

To view the full text of the testimony, please see: URL: http://www.asph.org/aa_document.cfm/0/0/6754.

PICK-UP BIOTERRORISM AD from 116/6