Public Health Infrastructure

U.S. Department of Health & Human Services • Public Health Service

May 19, 2004

PROGRESS REVIEW

In the 22nd in a series of assessments of *Healthy People 2010*, Deputy Assistant Secretary for Health (Designee) Howard Zucker chaired a focus area Progress Review on Public Health Infrastructure. Dr. Zucker described infrastructure as the framework—too often taken for granted—that supports and binds together the entire public health system. The focus area was created in 2000 in recognition that this critical resource was being stretched to the limits of its capabilities. In addition to the need for systematic monitoring of public health agencies and their ability to carry out the core functions of public health, the events of September 11, 2001, provided a stark lesson that the national infrastructure must be prepared to deal with unforeseen disasters as well. Subsequently, the nation has made unprecedented investments in public health infrastructure to improve preparedness. In addition to the increased recognition of the importance of infrastructure, heightened post-9/11 awareness has led to a critical reexamination of the specific *Healthy People 2010* objectives themselves. Partnerships with other organizations and sectors of society and wise use of the media are necessary to achieve success in all focus areas of *Healthy People 2010*, but nowhere more so than in the area of infrastructure.

In conducting the review, Dr. Zucker was assisted by staff of the co-lead agencies for this *Healthy People 2010* focus area, the Centers for Disease Control and Prevention (CDC), and the Health Resources and Services Administration (HRSA). Also participating were representatives of other U.S. Department of Health and Human Services (HHS) offices and agencies. The complete text for the Public Health Infrastructure focus area of *Healthy People 2010* is available at **www.healthypeople.gov/document/html/volume2/23phi.htm.** The meeting agenda, tabulated data for all focus area objectives, charts, and other materials used in the Progress Review can be found at **www.cdc.gov/nchs/about/otheract/hpdata2010/focusareas/fa23-phi.htm.**

Data Trends

Richard Klein of CDC's National Center for Health Statistics provided an overview of the available data and upcoming surveys in the Public Health Infrastructure focus area. Mr. Klein noted that the focus area is so recent in origin that only a few of the objectives are measurable. Nevertheless, all of what are now developmental objectives will have at least partial baseline data by the end of 2004 as several new surveys come online.

In 2004, 50 percent of major national data systems that track five or more *Healthy People 2010* objectives had the capability to geocode health records of individuals or healthcare providers by street address or latitude/longitude. The 2010 target is 90 percent (Obj. 23-3). In 2000, 19 percent of population-based *Healthy People 2010* measures had reliable data for all population groups identified in the minimum population template. The template includes data by race, Hispanic origin/race, gender, and

socioeconomic status (family income level and/or education level). The proportion of measures with complete templates decreased to 13 percent in 2004, in part because of revised Office of Management and Budget racial categories that allow respondents to select more than one racial affiliation. In 2000, 10 percent of measures had reliable data for all identified population groups (full template), compared with 7 percent in 2004. Additional population groups in the full template include geographic locations, disability status, age cohorts, health insurance status, presence or absence of chronic conditions, and marital status. The target is 100 percent for both minimum and full templates (Obj. 23-4).

In 2004, the proportion of *Healthy People 2010* objectives that were tracked regularly (i.e., at least once every 3 years) was 45 percent, compared with 82 percent (projected by workgroups) in 2000. The target is 100 percent (Obj. 23-6). In 2000, 36 percent of the *Healthy People 2010* measures collected by national data systems that track five or more objectives were released within 1 year of the end of data collection. This proportion rose to 62 percent in 2004. The target is for 100 percent of the data to be released within 1 year (Obj. 23-7).

Proposed Objective 23-11 has the aim of increasing the proportion of state and local public health agencies that meet national performance standards for essential public health services. In April 2004, 5 of 50 state public health systems used national performance standards, although none of them fully or substantially met the model standard. Of a total of 2,315 local public health systems, 248 used the national performance standards, and 88 fully or substantially met the model standard. Proposed Objective 23-14 aims to increase the proportion of Tribal, state, and local public health agencies that provide or ensure comprehensive epidemiology services to support essential public health services. Although baseline and tracking data are not yet available for this objective and no target has been set, a 2000–2001 survey showed that, of the total of 41 state and 3 territorial health departments that completed the survey, 787 of 1,366 epidemiologists on staff had no formal training in epidemiology.

Key Challenges and Current Strategies

In the presentations that followed the data overview, the principal themes were introduced by representatives of the two co-lead agencies—Suzanne Smith, Acting Director of CDC's Public Health Practice Program Office, and David Rutstein, HRSA's Deputy Associate Administrator for Health Professions. These agency representatives and other participants in the review identified a number of obstacles to achieving the objectives and discussed activities under way to meet these challenges, including the following:

- The infrastructure comprises more than 3,000 county, city, and Tribal health departments, some 3,000 local boards of health, 59 state and territorial health departments, more than 180,000 public and private laboratories, and other entities whose purpose is to protect the health of the public.
- The demand for nursing services continues to increase, while the number of people entering the nursing profession has decreased over the past few years. A July 2002 HHS report showed that, if recent trends were to continue unchecked, the nation's nursing shortage would continue to worsen significantly over the next two decades. In 2000, the shortage was estimated at 6 percent. By 2020, it would be expected to reach 29 percent. Early in his tenure of office, HHS Secretary Thompson identified addressing the shortage of nurses as a national priority.

- In many cases, state emergency preparedness activities and funds do not encompass American Indian Tribes, resulting in serious gaps in the national preparedness network.
- The State and Local Cooperative Agreement Program provides technical assistance and funding to public health departments in 50 states, 4 localities, and 8 U.S. territories to develop public health infrastructure, capacity, and plans to respond to events of terrorism and related public health emergencies. Funding for this program reached $872 million in fiscal year 2004. Currently, this is the largest Federal program after Medicare. Cooperative agreement partners leverage resources to develop and exercise plans that address the all-hazards approach.
- CDC demonstrated that public health infrastructure developed primarily with funding directed against threats of terrorism also results in greater response capacity for nonterrorism emergencies, as was shown during and after Hurricane Isabel in 2003. More than 16 percent of the fiscal year 2004 CDC budget goes toward terrorism preparedness and emergency-response efforts.
- President Bush's Health Center Expansion Initiative was launched in 2002 to increase access by vulnerable populations to direct health care. The Initiative will add 1,200 new and expanded health center sites and increase the number of people served from about 10 million to 16 million by 2006. HRSA currently supports nearly 3,600 health center sites, which served an estimated 12.5 million people in 2003. The centers treated an estimated 450,000 more uninsured patients that year than in 2002, and 82 percent offered dental care, either onsite or through contracts.
- As a result of another Presidential initiative, the National Health Service Corps has grown by about 70 percent in 3 years to reach an estimated field strength of 4,000 clinicians in 2004. The Corps now includes a team of about 80 elite professionals called the "Ready Responders," who undergo special training each year in emergency response and disaster relief. To fill vital needs in underserved areas of the country, these professionals are ready on short notice to respond to large-scale medical emergencies anywhere in the United States.
- Funded at more than one-half of a billion dollars and launched in 2002, the National Bioterrorism Hospital Preparedness Program is structured to develop and sustain emergency "surge" capacity at hospitals sufficient to handle mass casualty events. The funds are allocated to the states, but HRSA ensured that 80 percent must be passed through to local hospitals and clinics, health centers, emergency medical service centers, and other facilities that serve communities directly.
- HRSA administers the Bioterrorism Training and Curriculum Development Program, which provides $26.5 million in grants for continuing education and training for healthcare professionals and to add bioterrorism-related curricula in medical education (Obj. 23-9).
- The Tribal Infrastructure Taskforce will document the diverse population of Tribal health organizations and conduct a statistically valid survey to assess Tribal public health infrastructure. The Taskforce is a collaboration between the Indian Health Service (IHS), CDC, HRSA, the National Association of County and City Health Officials, and the National Indian Health Board.
- The Nurse Reinvestment Act (NRA), signed into law by President Bush in August 2002, is designed to address the need for more nurses by creating an HRSA-administered Nurse Scholarship Program that will reduce financial barriers to nursing education in exchange for at least 2 years of service in a facility with a critical shortage of nurses. The NRA also focuses on keeping personnel in the nursing field through a variety of retention strategies, including the creation of career ladders to assist nursing personnel who wish to become registered or advanced practice nurses. In addition, the NRA establishes a Nursing Faculty Loan Program to counter the widespread trend of nursing schools turning away prospective students because of faculty shortfalls.

Approaches for Consideration

Participants in the review made the following suggestions for steps to enable further progress toward achievement of the objectives for Public Health Infrastructure:

- To balance the information-sharing needs of infrastructure elements, strive to improve methods of data management and collection to meet concerns about individual privacy, confidentiality, and data security.
- Use the Department's Data Council to effect greater responsiveness and ease of operation in data systems and to enhance comparability and coordination between systems.
- Adapt successful models of 24-hour operation (e.g., poison control centers) to other vital elements of the public health infrastructure, especially the reporting of imminent threats to public health and safety.
- Provide additional technical assistance to local health departments, making sure to be attentive to their advice about specific needs in particular localities.
- When qualification requirements can be met, take advantage of opportunities to direct special bioterrorism program funds to improvements in the overall public health infrastructure, as was done to increase the pool of epidemiologists, for instance.
- Explore the possibility of setting up a nationwide, toll-free telephone number for reporting public health emergencies.
- Integrate IHS and Tribal facilities more thoroughly into the national public health network and assist in building their capacity for providing a full range of healthcare services.
- Use other kinds of healthcare professionals, in addition to physicians, as sentinels for disseminating firsthand information about events that affect the general public health and safety.
- Make better use of the media to acquaint the public with the availability, capacity, and pressing needs of the public health infrastructure.
- Develop a set of benchmarks for the public health infrastructure and use them to monitor the key aspects of its capacity and capabilities that are most relevant to today's public health system.

Contacts for information about *Healthy People 2010* focus area 23—Public Health Infrastructure:

- Health Resources and Services Administration—Beverly Smith, bsmith@hrsa.gov
- Centers for Disease Control and Prevention—Natalie Brevard Perry, nperry@cdc.gov
- Office of Disease Prevention and Health Promotion (coordinator of the Progress Reviews)—Debra Nichols (liaison to the focus area 23 workgroup), dnichols@osophs.dhhs.gov

Cristina V. Beato M.D.

Cristina V. Beato, M.D.
Acting Assistant Secretary for Health