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Regarding Homeland Security: Improving Public Health Surveillance

Submitted to the  
Committee on Government Reform  
Subcommittee on National Security, Emerging Threats, and International Relations  
United States House of Representatives  
May 5, 2003

Mr. Chairman and members of the Subcommittee, thank you for the opportunity to submit testimony on the importance of improving public health surveillance as an essential step toward bolstering our homeland security. My name is Dr. Shelley Hearne, and I am the Executive Director of the Trust for America’s Health (TFAH) and the Chair of the American Public Health Association (APHA) Executive Board. TFAH, a nonprofit, non-partisan advocacy group, is dedicated to protecting the health and safety of all communities from current and emerging health threats by strengthening the fundamentals of our public health defenses.

A strong public health defense begins with disease surveillance, which is why today’s hearing is so important. Public health surveillance, also known as health tracking, not only helps us monitor and mitigate potential chemical and bioterrorist attacks, but also is crucial to unlocking the mysteries behind chronic and infectious diseases. Tracking disease is one of the most vital weapons public health officials have in the fight to prevent and control threats to the country’s health.

Public health surveillance is defined as “the ongoing, systematic collection, analysis and interpretation of health data essential to the planning, implementation, and evaluation of public health practice, closely integrated with the timely dissemination of these data to those who need to know.”

A comprehensive disease tracking system monitors the occurrence of disease and can inform the rapid identification of outbreaks or “clusters” of cases and analysis of geographic variations and temporal trends. With this information in hand, public health investigators can search for the sources and routes of exposure to determine why the outbreak occurred, how to prevent similar outbreaks in the future, and, if the outbreak is ongoing, how to prevent others from being exposed. Concurrently, action must be taken to control the spread of the disease and minimize further illness and death, even when clear cause and effect have not been fully identified.

The public health community overwhelmingly agrees: health tracking works. Unfortunately, up until now, we have lacked the resources and national resolve to make effective, comprehensive health tracking a reality. The new threats of potential chemical and bioterrorism, combined with emerging health crises like severe acute respiratory syndrome (SARS) and West Nile Virus, mean that health tracking is even more essential. Now is the time for Congress to make it a national priority.

Even limited health tracking efforts have already helped us make advances toward improving the health of communities. For example, through health tracking information, we have been able to better understand how West Nile Virus is spread.

The good news is that as we are working to prevent these possible and emerging health dangers through public health surveillance, we can put this same tool to work to curb and control existing chronic disease epidemics, from cancer to asthma to diabetes. Seventy percent of Americans will die from a chronic disease. At the same time, according to the Centers for Disease Control and Prevention (CDC), approximately 70 percent of these illnesses are preventable through strong public health measures.

As we work to improve public health surveillance efforts, we must also realize that our entire public health system is in urgent need of revitalization and modernization. It is no secret: the current system is painfully under prepared to meet the public health threats that Americans face today.

In the past, the U.S. public health system served as the world leader in stamping out diseases like yellow fever, typhoid, influenza, and cholera. Just as the world is looking to our country for leadership in the war against terrorism and the worldwide SARS epidemic, the United States also should be at the forefront of the global war against modern disease.

Instead, we find our public health defense system ailing: the 2001 CDC report *Public Health Infrastructure* stated the current U.S. public health infrastructure “is still structurally weak in nearly every area.” The report calls for a system of “public health armaments,” including a “skilled professional workforce, robust information and data systems and strong health departments and laboratories.”

In a separate report, the General Accounting Office (GAO) found that “the 1999 West Nile virus outbreak, which was relatively small, taxed the federal, state and local laboratory resources to the point that officials told us that CDC would not have been able to respond to another outbreak had one occurred at the same time.” According to the GAO report, coordination between state, local and federal authorities, communication systems, disease surveillance, staffing and laboratory capacity are areas that require immediate improvement.

In order to provide public health surveillance that bolsters homeland security, we must focus on: national authority and commitment to disease tracking standards and reporting systems; rapid communication links with all health agencies, hospitals, first responders and laboratories; modern and compatible equipment; and a trained workforce. Sadly, many of these elements are missing currently. Consider:

- **The lack of national coordination -- mandated standards, support and enforcement.**
  CDC does not have a command and control mentality with respect to surveillance. The most recent example is the agency’s unwillingness to require that SARS be considered a reportable disease in every state. In fact, most of the nation’s disease tracking systems
suffer from the lack of national standards and uniform structures, resulting in a patchwork approach to surveillance. Often, the CDC is in the unenviable position of having to cajole state health departments to provide important data about cancer, birth defects, and many other chronic diseases and conditions.

- **The data collected may never be analyzed or disseminated.** The 2001 Pew Environmental Health Commission’s *Transition Report to the New Administration: Strengthening our Public Health Defense Against Environmental Threats* found that there is virtually no “synchronization in the collection, analysis and dissemination of information. In addition, much of the data that is collected is never analyzed or interpreted in a way that might identify targets for further action.”

- **Inadequate resources.** At a time when the public health system needs substantial investments and a 21st Century overhaul, the Administration had proposed over $100 million in cuts to the CDC budget for FY 2004. At the same time, state budget deficits are leading to massive cuts in chronic and infectious disease prevention, putting vital programs at risk and there is no way for the CDC to fill those gaps.

Together, these factors present a dangerous and, frankly, unacceptable way to watch guard the health of the nation. The result is that our public health and homeland security face serious risks.

Public health officials know how to reduce these risks: watchfulness, rapid response, research and action are the trademarks of an effective, responsive public health system. The response of the CDC to the global SARS epidemic is testament to why a coordinated public health game plan can and will save lives. At the same time however, it is important to note that SARS has barely touched U.S. shores, so the preparedness of the entire public health system --local and state health departments, hospitals, and laboratories--remains largely untested.

In fact, it is worth remembering that the anthrax attacks in Fall 2001 exposed and exacerbated the weakness in the public health infrastructure. Lack of a national response plan and deficiencies in our public health apparatus made a terrible situation even harder to manage.

While improvements are urgently needed in virtually every aspect of the U.S. public health infrastructure, Congress can and should take these immediate steps:

- **Increase funding for the Nationwide Health Tracking Network to $100 million.** We are encouraged that in the Administration’s budget request to Congress calls health tracking a “major focus” of its environmental health program. We are equally encouraged that the Congress has taken the lead in providing initial funding for the Nationwide Health Tracking Network in Fiscal Years 2002 and 2003. It’s time to take this critical surveillance tool to scale. A fuller description of a Nationwide Health Tracking Network is described in Attachment A.

- **Substantially increase funding to enhance the information and communications systems related to public health surveillance.** Specifically, provide full funding for the National Electronic Disease Surveillance System (NEDSS), which serves as CDC’s architectural backbone of surveillance. As former CDC Director, Dr. Jeffery P. Koplan wrote in 2002,

“As the initiative [NEDSS] proceeds, it will reshape the way public health is practiced with unprecedented access to high-quality and timely surveillance data.³

- Chronic under-funding has led to a network of health agencies that have trouble communicating with each other, let alone with the public. As we have learned with SARS, communicating with a shaken public is key to alleviating natural fears that arise with an emerging illness. The Health Alert Network (HAN), a federally coordinated system between the CDC and state/local health departments, has the potential to fill this current communications gap. By using advanced technological tools, HAN will allow for real-time coordination in situations where even seconds matter. HAN plays a vital role in the nation’s state of readiness and timetables to completion and activation must be accelerated and linked to state and major metropolitan health departments.

- Given the importance of CDC for protecting the public’s health, restore at least FY 2003 funding levels to all programs at the CDC. The proposed cuts are unwise at a time of a global epidemic caused by “Mother Nature” and in light of potential biological and chemical terrorist attacks.

- Ask the Department of Health and Human Services to convene a national summit on the future of the American public health system and the resources needed to build a robust, integrated 21st Century infrastructure that can play a “double duty” role by enhancing preparedness for the full spectrum of health threats from chemical terrorism to cancer and from biological attacks to birth defects.

Mr. Chairman, the unimaginable happened on September 11, 2001 -- an act of intentional terrorism on American soil. The unimaginable struck again in the past few months with SARS outbreak -- this time an act of nature. An effective public health defense requires us to be prepared for the epidemics we already know and those we have yet to imagine. Health tracking and reviving our public health system are vital to our nation’s security. The health of the American public deserves no less.

Thank you again for the opportunity to submit this testimony on behalf of Trust for America’s Health.

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ATTACHMENT A:

Fundamentals of the Nationwide Health Tracking Network

1. *Establishing essential data collection systems for chronic diseases and conditions and potential links to environmental factors:* The network would build on existing health and environmental data collection systems for infectious diseases and ensure uniform coverage in all 50 states.

2. *Developing an Early Warming System:* A network would serve as an Early Warning System to alert communities immediately of health threats to the population. The same system used to alert officials in the event of a terrorist attack could also help in detecting possible disease clusters.

3. *Creating Rapid Response Teams:* Such teams able to deliver instant information are crucial to communities in crisis. The network would coordinate federal, state, and local health officials to quickly investigate situations of concern.

4. *Addressing Unique Local Health Problems:* The seventeen states and cities and three Centers of Excellence established through the 2001 health tracking funding serve as excellent models for a broader Nationwide Health Tracking Network. Local and state health departments are often the first line of defense in protecting the health of communities.

5. *Creating Community and Academic Partnerships:* Relationships with communities and academic centers will help ensure that data collected is accessible and useful on a local level. Collaborating with research groups will aid in training the local workforce, analyzing data, and developing links between tracking results and preventative measures.