

**Statement of
Elin A. Gursky, Sc.D.**

**Principal Deputy for Biodefense, National Strategies Support Directorate
ANSER/Analytic Services Inc.**

**Presented to the
U.S. Senate Committee on Health, Education, Labor, and Pensions
Subcommittee on Bioterrorism and Public Health Preparedness
July 14, 2005**

**Roundtable: When Terror Strikes—
Preparing an Effective and Immediate Public Health Response**

“What is necessary to build and maintain a robust national public health infrastructure to meet future biodefense requirements?”

Few experts dispute the inevitable and potentially catastrophic threat of a large-scale biological attack from Mother Nature or terrorists. The decades concluding the last century offered ominous insights into the evolutionary transmutations of emerging and reemerging pathogens such as hantavirus, West Nile virus, and HIV-AIDS fueled by ecological change, the global migration of humans and agriculture, and drug resistance. The 21st-century awoke to SARS and monkeypox; outbreaks of avian influenza, Ebola hemorrhagic fever, Marburg hemorrhagic fever, and polio can be found in areas less than a day’s plane ride away. The threats to health security from terrorists by the dispersal of biological weapons such as smallpox and anthrax or by dispersal of naturally occurring diseases such as Ebola or plague are augmented through their arsenal of time, resources, and increasingly sophisticated biotechnology. Whether the pathogen is exotic and bio-engineered or common, bioterrorism expands the element of intervention upon standard public health management. Bioterrorism can be a single attack with a single pathogen, or multiple attacks with multiple pathogens on multiple targets. Interventions in the attack(s), in the behavior of potential victims, and by the requirements for swiftly administered medical prophylaxis are among the challenges that must be rapidly and accurately assessed and to which a coherent response must be generated.

The majority of experts agree that it takes a special army to combat these threats—an army that understands incubation periods, the transmission of infectious agents across susceptible populations, and strategies such as isolation, mass vaccination, and prophylaxis to control an epidemic. The army is the public health sector. The Frist-Kennedy Bill (S. 1765) authorized almost \$1 billion following the 2001 anthrax attacks to build public health infrastructure and strengthen our response to bioterrorism, a prescient acknowledgement of the critical role of public health in this war against bugs. Subsequent federal awards and supplemental funding

followed. Four years and \$3 billion later we can see evidence of strong preparedness initiatives in a number of states.

However, before we spend another \$3 billion, we must acknowledge woefully limited evidence of strategy and systems that can work consistently, uniformly, and durably on a national scale in the event of a deliberate or naturally occurring infectious disease epidemic—an event that will stand little likelihood of being confined within a single state and that, not which will represent a crisis of national security significance.

The responsibilities facing today’s public health departments are broad. Beyond communicable diseases, health departments confront a wide spectrum of tasks that include chronic disease screening and education (cancer, diabetes, asthma, and hypertension); community outreach to seniors; family planning, maternal health, and prenatal care; dental health; injury control; and social marketing to decrease tobacco use, teen pregnancy, and violence. Moreover, public health departments find themselves increasing the level of effort they must devote to serving as a medical safety net as the number of uninsured Americans rises to 45 million. Historically, crisis management has not been a developed capability of public health. In fact, the skills and talents required to accomplish and manage uncertainty and to lead effectively during a biological attack are quite dissimilar to those needed in outreach efforts for chronic disease.

Bioterrorism preparedness has exposed the frailty of the patchwork quilt that is comprised of the country’s 3,000 local and 50 state health departments. Both research data and anecdotal reports indicate that preparedness efforts have interfered with routine day-to-day responsibilities and have engendered frustration and resentment as state budget crises force cuts or curtail traditional public health programs designed to promote community health status and provide a social good. Preparedness for events such as anthrax attacks have not been embraced as a “core mission” of public health, but are perceived as usurping fundamental responsibilities of the community. We must concede several key tenets before redoubling our preparedness efforts:

- Our amalgamation of state and local health departments is a *local* enterprise, bounded by the principles of federalism and directed by the needs of governors, county managers, and mayors.
- Fifty state and 3,000 local health departments comprise a sector—not a system. There are few shared practices across that sector that can translate into a systematic approach evidenced by regional public health response paradigms, “mutual aid,” or surge capacity. Public health itself is highly fragmented and represents a wide spectrum of professional interests and backgrounds.
- Confusion regarding public health authority and responsibility abound. As was seen during the anthrax attacks and remains evident still as federal preparedness funds flow from state to local health departments, there is no consensus regarding the roles and responsibilities of CDC, state, and local public health agencies during a large-scale biological attack. Note that the median number of staff in our local public health agencies is 13. Note also that after several phone calls to the CDC and speaking with 15 different

individuals, it is apparently not known how many of its 9,000 staff is deployable and fully trained for a response role in the field.

- There is no terminal degree or education that defines a “public health practitioner,” and a large portion of our public health workforce relies upon on-the-job-training. This may well serve their health promotion responsibilities, but is inadequate to effectively address health protection and security challenges of the 21st-century.
- The public health sector remains essentially disconnected from many critical partners, especially the medical and hospital sectors, creating a dangerous gap between efforts to detect a disease outbreak and assure the rapid medical interventions necessary to avert a full-scale epidemic. Historically, the majority of emerging diseases and the anthrax events of 2001-02 were recognized by clinicians in clinical settings, typically outside the realm of public health. The nation’s medical system is in crisis, with very little spare capacity with which to care for an increased number of patients. Medical facilities are largely not-for-profit businesses that acutely experience the effects of changes in health care funding and liability.
- Despite the availability of exercises and short courses implemented since 2001, the public health sector and the vast majority of clinical caregivers remains untrained, inexperienced, and naïve regarding the scope of a potentially lethal and unremitting infectious disease outbreak. Note that at the June 9th Library of Congress meeting led by Senators Burr, Clinton, and Lieberman, and Representative Cox, former Deputy Homeland Security Advisor to President Bush, Richard Falkenrath, stated that no public health department could swiftly distribute and administer medical countermeasures from the Strategic National Stockpile.

Prudence compels us to assess the return on our preparedness investment thus far as we proceed on a course to protect America’s most critical infrastructure—its 280 million citizens—many of whom will bear the responsibility of treating the sick, operating utilities and transportation systems, assuring civil order, and maintaining our business and industry in the event of a “catastrophic” disease event.

Twenty-first-century threats require 21st-century public health strategy. We must balance public health’s traditional role of promoting the health of Americans, while ensuring a critical new role protecting the health security of America. Should we re-purpose public health and remove the financial and labor-intensive burden of persuading Americans to overcome their proclivity to obesity, lethargy, and tobacco? Should we retain health promotion responsibilities at the state level and federalize the public health protection components? Should we continue to invest in the entirety of the public health infrastructure, hoping we will accrue critical capabilities for detecting and responding to pandemic influenza or plague? Should we invest in more practitioners, or in technology-based solutions like BioWatch?

Difficult decisions are necessitated by the exigencies of the current threat environment, heightened just a week ago by the bombings in London. The 21st-century demands that we build a public health *system*, an entity that responds with consistency, uniformity, and efficiency across

the nation. A number of efforts will help us implement the necessary systematic approach to disease detection, intervention, and containment.

I would urge this committee to consider the following short-term steps:

- We must focus efforts and resources to build a national health security information infrastructure that connects our public health, hospital, and medical communities (and also law and intelligence). Current efforts are languishing from a state-by-state approach that has been absent national standards and requirements. Real-time response to infectious disease occurrences are a critical component of national security. Note that four cases of cutaneous anthrax went unrecognized prior to Bob Stevens' diagnosis with inhalational anthrax.
- We must rebuild our public health workforce through principles not unlike those applied in the DoD's force transformation efforts. We must strive to achieve public health "special forces" to address the war on emerging and deliberately released pathogens. Grants and loans will help recruit new cohorts of public health professionals, but we must require that those choosing to be practitioners (not researchers or academics) attain a level of skill demonstrated by earning a license or certificate. The individuals who make critical decisions about the health of populations must be subject to professional accountability as are our physicians, attorneys, and even tattoo artists and hair stylists. Schools of public health must devise specific public health practice curricula. National credentialing exams must be formulated and administered by an impartial outside agency.
- We must clearly articulate the roles, responsibilities, and authorities of local, state, and federal (CDC) public health agencies during a large-scale public health crisis. Specifically, the horizontal connections between agencies sharing responsibility and authority in a biological attack must be strengthened.
- We must foster closer integration of roles and operations between the public health and hospital sectors, through such strategy as joint planning and funding. Hospitals must receive funding to incentivize increased training and capacity and be assured relief from liability during crisis response. Public health has authority to direct care, and hospitals have capability to provide care for victims. This linkage should be specifically supported and exercised.
- We must assess the effectiveness of preparedness through strict measures of accountability and through performance in rigorous full-scale and tabletop exercises. To fully stress and shape the public health response systems, we must avoid instances where public health writes, participates in, and then evaluates its own performance. Demonstrated competence and capabilities, not attendance at a course or tabletop, are the goals.

The job of leading the effort to protect the public from potentially lethal infectious diseases falls to public health. But four years after the 2001 anthrax attacks, the burden of overcoming decades of underfunding, shrinking ranks, and expanding chronic health and medical care responsibilities

has hampered the public health preparedness effort. Bioterrorism has not become a core mission, and funding state and local agencies has thus far demonstrated that the sum of the parts will not make up a “whole” national preparedness effort.

Before we invest another \$3 billion, we must take the necessary steps to build a 21st-century public health system!

Thank you.