STATEMENT FOR THE RECORD

KIMOTHY SMITH, DVM, PhD

ACTING DIRECTOR, THE NATIONAL BIOSURVEILLANCE INTEGRATION CENTER
CHIEF SCIENTIST, OFFICE OF HEALTH AFFAIRS
UNITED STATES DEPARTMENT OF HOMELAND SECURITY

BEFORE THE

UNITED STATES SENATE
COMMITTEE ON HOMELAND SECURITY AND GOVERNMENTAL AFFAIRS

SUBCOMMITTEE ON OVERSIGHT OF GOVERNMENT MANAGEMENT, THE FEDERAL WORKFORCE, AND THE DISTRICT OF COLUMBIA

"FORESTALLING THE COMING PANDEMIC: INFECTIOUS DISEASE SURVEILLANCE OVERSEAS"

OCTOBER 4, 2007

Mr. Chairman, Ranking Member Voinovich, and Members of the subcommittee, I am Dr. Kimothy Smith, Acting Director of the National Biosurveillance Integration Center and Chief Scientist in the Office of Health Affairs at the Department of Homeland Security (DHS). Before I begin, I would like to thank you for the opportunity to testify before the subcommittee on this critical issue of global disease surveillance and your continued willingness to work with the Department in providing leadership and commitment to ensure the security of our Nation. I would also like to thank our Federal partners, including those on the panel today, and others that support and interact with us as we work everyday to fulfill our mission.

As you may know, the Office of Health Affairs, within DHS, is leading the National Biosurveillance Integration Center, or NBIC, partnership. Establishing NBIC has been, and continues to be, a top priority for Secretary Chertoff. NBIC brings together biological information from various Federal partners and open sources to develop an integrated picture of biological risks. The President has called for a "timely response to mitigate the consequences of a biological weapons attack." Our mission was initially established through Homeland Security Presidential Directives (HSPDs) 9 and 10. It was also recently codified in title XI of P.L. 110-53, *Implementing Recommendations of the 9/11 Commission Act of 2007*.

NBIC seeks to provide information to allow early recognition of biological events of national concern, both natural and man-made, to make a timely response possible. No other place in government serves to integrate this information from across the spectrum of public and private, domestic and international, open or protected sources. The three vital component parts of NBIC are:

- A robust information management system capable of handling large quantities of structured and unstructured information;
- A corps of highly-trained subject matter experts and analysts; and
- A clear establishment of a culture of cooperation, trust and mutual support across the Federal government and other partners.

NBIC has agreements with a number of Federal partners and other relevant entities. Many of these agreements have been formalized through MOUs, while others are still being developed. Specifically, we have MOUs with Departments of the Interior, State, Agriculture, Defense, Health and Human Services and Transportation, as well as working closely with our DHS components. We also have formal outreach with the Department of Veterans' Affairs, FBI, U.S. Postal Service, Environmental Protection Agency and the National Oceanic and Atmospheric Administration. Additionally, we are developing relationships with State Intelligence Fusion Centers and with outside entities such as Georgetown University's ARGUS Project – who are represented here today. As we have learned throughout this process, each agency and organization is quite unique and there are many forms and types of information out there to identify, capture, analyze and integrate into a common picture. To succeed, we must leverage all possible information sources within their limits. The key to the success of NBIC is the trusted relationships among Federal partners and others who provide access to the valuable information necessary to meet the needs of decision-makers.

A system of this complex nature, however, is not fully functional without the subject matter expertise and analysis. Thus, subject matter experts from the various agencies and organizations

must also be leveraged to examine information, provide informed interpretation, and accomplish consultations, when necessary, to meet the needs of the appropriate decision makers.

To provide additional value to our partners, DHS has the advantage of its access to threat information, which, when integrated with surveillance of health data and disease outbreak trends may provide early warning of a biological attack. To accomplish this, fused information products and other patterns and trends developed from biosurveillance sources are provided to our agency partner, the DHS Office of Intelligence and Analysis, for incorporation with intelligence analysis products. When appropriate, the product can be forwarded to the wider Intelligence Community and pertinent threat analysis information added for return to the Center for further interagency dissemination. This final process of actionable information preparation fuses biosurveillance patterns and trends with threat information. The completed products can then be provided to the National Operations Center (NOC) for inclusion in the Common Operating Picture (COP). This distribution closes the loop by providing biosurveillance situational awareness back to NBIC partner agencies and other organizations.

By integrating and fusing this large amount of available information we can then begin to develop a base-line against which we can recognize anomalies and changes of significance. NBIC seeks to identify patterns and trends, which in combination with threat analysis provide the situational awareness our partners need to execute their mission.

The NBIC is operating today, providing analysis and developing biosurveillance assessments, while responding with our Federal partners to real-world events. However, it should be noted

that it is not at Full Operational Capability (FOC). The projected date for full NBIC operations is September 2008. The Center currently operates a 24 hour/7 days a week National Biosurveillance Watch Desk, within the National Operations Center (NOC), which first stood up in December 2005. Over the last few months, we have transitioned to having U.S. Public Health Service officers posted at our Watch Desk, a change that provides a needed, initial "eyes-on" assessment of incoming information to determine potential importance to health security and the need for further analysis. Facilities have been acquired and personnel requirements have been finalized with two-thirds of those requirements filled to date. Interagency Agreements and Memorandums of Agreement (MOAs) have also been developed for the integration of subject matter experts (SMEs) from the Centers for Disease Control and Prevention (CDC) and the Armed Forces Military Intelligence Center (AFMIC).

We have also recently introduced our National Biosurveillance Integration System Operational Display System (NODS), an IT system that provides our Center the visibility into over 300-plus unclassified sources of biosurveillance information from across multiple sources. This information is aggregated with various reports that we receive from the departments of Defense, State, Health and Human Services, Agriculture, and Transportation and other sources. Our relationship and integration of such valuable sources, such as ARGUS is firmly established within NODS.

Currently, the acquisition process of our biosurveillance program is based on monitoring sources of biological information used to develop information products for dissemination to decision makers and key stakeholders. Some of these sources include: ARGUS, the Office International

des Epizooties (OIE -The World Organization for Animal Health), and the World Health Organization (WHO), among others. Our system collects and stores information, permitting easy querying via web-based interface. Our early experience has shown that much of this information is not neatly packaged, but comes mostly unstructured, sometimes as simple "e-mail" message traffic or reports in multiple formats. As we become aware of new, useful information streams, we will assess their value and will incorporate them as appropriate.

We are expanding NODS capabilities to automate the development and dissemination of reports. Our NBIC reports, to be distributed through the NOC-COP fall into three categories: real-time notifications, daily and weekly reports and situational reports. Notifications are short, factual summaries developed immediately following significant or newsworthy "bio-events." Daily and weekly reports, highlight events of potential significance. Situation reports provide daily updates of ongoing domestic or international "bio-events." Additionally, we have instituted a Pilot Biosurveillance Common Operating Picture (BCOP) that incorporates weekly Avian Influenza updates.

One important function of NBIC will be the integration of wildlife biosurveillance information as a potential key early indicator of a possible disease outbreak. The U.S. Fish and Wildlife Service, USDA and the U.S. Geological Survey, along with information networks such as the Global Avian Influenza Network for Surveillance (GAINS), that receives support from my colleagues at USAID and CDC and the International Species Information System/Zoological Information Management System (ISIS/ZIMS) community all provide data that may prove useful as a "very early" indicator of a significant bio-event.. To this end, we have clear interest

in supporting the ISIS/ZIMS efforts as well as deepening our relationship with our GAINS colleagues for enhanced information sharing beneficial to the broader biosurveillance community. NBIC's ability to fuse data gathered from across Federal agencies and others will assist in public health risk determinations in the event sick animals are detected in wildlife. As an example, sampling of birds for the H5N1 virus is useful to support the Nation's effort against pandemic influenza.

Mr. Chairman, and members of the subcommittee, there are numerous challenges before us to develop an effective biosurveillance capability, which require a tremendous amount of continued partnership, dialogue and development of system capacity. However, the consequences of not developing this capability could be devastating. While continuing to move forward to meet our initial goals, we are cognizant of maintaining a realistic assessment of the biosurveillance mission to assure success. There are no perfect data sets available at the present time that gives a picture of all bio-events.

Even as we work toward the acquisition and automation of the myriad information streams, the heart and soul of our program continues to be people representing our various partners and NBIC staff. Retention of existing staff and completing interagency agreements for additional subject-matter experts and analysts are essential to accomplishing the mission.

The scope and quality of our reporting continues to be our emphasis and our daily challenge in an effort to serve our customers. Facilitating distribution of the information products will be in place when NBIS 2.0 is launched providing web-based, security level specific access. Data from

multiple domains, bringing it together and providing substantive analysis is complex and difficult. Additionally, there are the challenges of privacy and propriety of information, information-sharing protocols, and system security.

At DHS, we continue to work on obtaining the needed systems, information and subject matter expertise to meet this critical mission of biosurveillance; one that remains a top-priority of Secretary Chertoff. Our job is to ensure that the nation has the capability for comprehensive, integrated biosurveillance situational awareness, early-warning of a possible attack and a decision support system for outbreak and event response in the event of a biological incident, whether intentional or naturally occurring. With your continued support, as well as our interagency and organizational partners, we can achieve this critical mission. Thank you for your time and continued leadership on these critical issues. I look forward to answering your questions.