

**Testimony of Acting Assistant Secretary Vann H. Van Diepen**  
**The National Strategy for Countering Biological Threats: Diplomacy and  
International Programs**  
**House Foreign Affairs Committee**  
**Subcommittee on Terrorism, Nonproliferation, and Trade**  
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Thank you, Mr. Chairman, for the opportunity to speak on behalf of the Department of State about important efforts we have undertaken to address the President's priorities for countering global biological threats. As you are aware, the President issued the *National Strategy for Countering Biological Threats (Strategy)* in December of last year. Emblematic of the critical role that State plays in implementing the *Strategy*, it was first publicly announced by Under Secretary Ellen Tauscher in Geneva during the Annual Meeting of States' Parties to the Biological Weapons Convention (BWC).

I want to emphasize that this *Strategy* provides the first U.S. Government-wide effort focused on preventing the spread of disease outbreaks, whether deliberate or naturally-occurring, and in the context of a wider public health preparedness, control and response approach. This is based on the widespread recognition that global public health is deeply interconnected and that outbreaks of

disease, whatever their origin, will affect many nations in time and in some manner.

The Department of State leads the U.S. Government effort on the pillar of the *Strategy* that emphasizes the need to “Transform the International Dialogue on Biological Threats.” In particular, State coordinates with and provides assistance to international partners to address biological risks, particularly in countries and regions facing a high risk of terrorism or that serve as potential terrorist safe havens. I want to begin by first briefly outlining the threat and then I will emphasize some key activities that State is undertaking with the global community pursuant to the *Strategy* that are principally encompassed by our efforts under the Biological Weapons Convention (BWC) and our Biosecurity Engagement Program (BEP).

### The Threat

Congress is keenly aware that a biological weapons attack is a real and present danger, particularly in light of the 2001 anthrax attacks.

The biological threat has several important components, including intent from groups that have expressed interest in obtaining biological weapons and expertise, emerging infectious diseases that create new opportunities for havoc, and growing biotechnology capacity in areas of the world with a terrorist presence.

The most obvious and worrisome threat comes from terrorist groups that have expressed intent to obtain biological weapons – for example, Al Qa’ida has shown strong interest in biological weapons for over a decade. We have tangible evidence that Al Qa’ida leadership directed a focused effort to develop the capability to conduct a biological attack with anthrax. Al Qa’ida ran an anthrax project in parallel with its nuclear efforts, and in 2001 U.S. forces discovered a lab in Kandahar, Afghanistan that was built for this purpose. In 2006, Al Qa’ida in Iraq issued a decree, specifically recruiting experts to help them in this effort, saying that “the field of jihad can satisfy your scientific ambitions... and the large American bases [in Iraq] are good places to test your unconventional weapons, whether biological or dirty....”

Other organizations that have masterminded WMD plots, such as Aum Shinrikyo, have also pursued and tried to use biological weapons. Fortunately, to date, these attempts have largely been unsuccessful – as in the 1993 case of Aum Shinrikyo - due to the use of a non-pathogenic strain and ineffective dispersal of the anthrax agent the group produced.

The bacterium causing anthrax has been a sought-after agent in the context of state bioweapons programs, and of terrorist plots informed by widespread public information on bioweapons. The bacteria that causes anthrax, *Bacillus anthracis*, can be isolated from natural sources without sophisticated technical skills, has a

very high lethality rate in its pulmonary form and not treated quickly, and - when in its spore form - is extremely hardy and can survive the rigors of aerosol dissemination with high efficiency. UN inspectors in Iraq found 18 50-liter fermentors that have been used to produce anthrax at Al-Hakim in the early 1990's; in addition, the Soviet's probably produced multi-ton quantities of anthrax. Importantly, while anthrax may be the agent most frequently associated with biological weapons, at least a dozen other organisms hold potential for deliberate misuse to catastrophic effect. Other agents of concern include those on the U.S. Select Agent program list, such as *Brucellosis* and *Tularemia species*, which the Soviets also grew in large quantities. Wheat Rust and Foot and Mouth Disease (FMD) virus are also of concern for the possible disruption their deliberate introduction could cause to our food supply. A successful attack using anthrax, FMD, or another infectious agent could not only cause disease and even deaths, it could cause panic, loss of public trust, and enormous economic damage. For example, the U.S. anthrax attacks in 2001 caused 22 illnesses, 5 deaths, and had substantial direct economic and cleanup costs; the UK conducted mass livestock cullings in response to the FMD outbreaks.

And while we are focusing many resources on preventing terrorists from acquiring and using biological weapons, we also have concerns that as many as half a dozen state actors may harbor ambitions – and may even be advancing their

capability - to develop or otherwise acquire dangerous pathogens for use as biological weapons.

State plays a major role in working with the international community to counter BW through a number of bilateral and multilateral mechanisms, and I am going to focus my testimony on four activities that form a major part of our toolbox: the BWC, our Biosecurity Engagement Program, the G8 Global Partnership Against the Spread of WMD (G8 Global Partnership), and UN Security Council Resolution 1540. I will not be discussing State's Foreign Consequence Management Program, which assists partner nations in building capacity for response and recovery following a CBRN incident and coordinates the U.S. response to a request for assistance from a stricken nation.

The Obama Administration's *Strategy* for countering biological threats – both natural and man-made – rests upon the main principle of the BWC, that the use of such weapons is “repugnant to the conscience of mankind.” That is why we are promulgating an approach that strikes a balance between supporting scientific progress -- for example, working hand-in-glove with industry and academia on screening measures for synthetic DNA sequences -- and curbing the potential for abuse of biology through export controls and other national and international measures, to include promoting joint bioterrorism response protocols between law enforcement and public health agencies. There has been no comprehensive

strategy before this time that addresses gaps in our efforts to prevent the proliferation of biological weapons and scientific abuse. The *Strategy* promotes global health security by increasing availability and access to knowledge and products of the life sciences that help reduce the impact from outbreaks of infectious disease whether natural, accidental, or of deliberate origin. We intend to establish and reinforce norms against the misuse of the life sciences through a culture of responsibility, awareness and vigilance. We also seek to implement a coordinated approach to influence, identify, inhibit, and interdict those who seek to misuse scientific progress to harm plant, animal and human life. By obtaining timely and accurate information on the full spectrum of risks, we hope to be able to take appropriate actions to manage the evolving risk.

### The BWC Reinvigorated

As Under Secretary Ellen Tauscher stated during her address rolling out the *Strategy* at the BWC Annual Meeting last December, “we want to make the BWC the premier forum for discussion for the full range of biological threats.” As a result of the successful BWC Work Programs of annual expert and political meetings, we now enjoy a remarkable and productive intermingling of biological communities focusing on practical and real-world activities that have a direct and immediate impact. For example, 500 people attended the 2009 BWC Experts Meeting and are actively engaged in the BWC annual Work Program. Participants

come from Foreign Affairs, Defense, Health, Justice, and Agriculture Ministries, are members of national scientific academies and university representatives, industry representatives, non-governmental think tanks, and from intergovernmental agencies such as the World Health Organization (WHO), Food and Agriculture Organization (FAO), the World Organization for Animal Health (OIE), and Interpol. The BWC is a significant place to introduce national priorities, promote scientific exchange, and to ensure that cooperation and assistance reaches those that make a conscious request for it.

The BWC already provides an international forum for advancing the dialogue on pathogen security and laboratory safety practices, and for promoting legislation, guidelines and standards through cooperation and partnership. We also want the BWC to help improve countries' abilities to respond to natural outbreaks, and thus to mitigate the consequences of disease outbreaks regardless of origin, to fully and effectively implement the BWC, and to better deal with bioterrorism.

We intend to promote confidence in BWC compliance by encouraging increased participation in its voluntary confidence-building measures (CBMs), assessing the forms for effectiveness and identifying areas for improvement. CBMs already are an important tool for promoting transparency and clarifying the intent of national biodefense activities, including activities that countries may undertake through private, public (academic), and governmental entities . And in

the same light, in an effort to provide transparency into our own ongoing biodefense efforts, the United States has invited the 2010 Chairman of the BWC to tour our biodefense campus in Frederick, MD. We are also considering the risks and benefits of putting our future CBMs on the public access part of the website belonging to the BWC's Implementation Support Unit (ISU).

### BWC Priorities in 2009-2010

To give you insight as to how this plays out in practical terms, let me highlight the efforts going on in Geneva under the BWC Work Program last year and this year. State coordinates these efforts.

The focus of the BWC States Parties during 2009 was on the importance of disease surveillance, as well as related capacity building in detecting and containing dangerous outbreaks of disease, whether natural or deliberate in origin. As emphasized in the *Strategy*, there is broad recognition in the security community that developing overseas health capacity strengthens our national security. If international labs are secure and scientists are engaged in responsible behavior and thus able to detect, report, and respond to public health emergencies, our collective security is enhanced. Because the BWC Experts Meeting brings together such a confluence of participants, it is the ideal setting to reinforce this point. The Director of the Global Disease Detection program of HHS's Centers

for Disease Control and Prevention (CDC), which is building capacity around the world to detect and respond to emerging public health threats, briefed the meeting on extensive efforts by the U.S., in fifty countries, to provide assistance in the implementation of the WHO's International Health Regulations (IHRs). Many of the 194 States Parties to the IHRs will not have the required basic core competencies in place within their national health systems by the 2012 deadline. Without the measures in place under the IHRs, detection of the initial outbreak of H1N1 would have been delayed and the necessary coordination between States and with the WHO would not have been as efficient. Since that time, the role of IHR measures and related assets in detecting, diagnosing and containing other infectious diseases have only reinforced these important cooperative relationships.

Another area where we highlighted U.S. assistance during the BWC Experts meetings was through NASA's ability, based on 30 years of data, from using satellite imagery to predict disease outbreaks, through examination of weather, air and sea temperatures and other factors that can influence environmental conditions that support transmission of particular diseases. This information is easily accessible on the internet. To emphasize the importance we place on surveillance of animal and plant diseases, the Department of Agriculture shared its extensive international collaborative efforts. The U.S. and Georgia made a joint presentation on cooperative disease surveillance capacity building.

To follow-through on our 2009 initiatives, and encourage a sustainable IHR implementation process, we will be hosting a workshop in Washington in June, promoting best practices in implementation of the IHR's. This was one of the activities highlighted in Under Secretary Tauscher's address. Another meeting will be held on the margins of the August BWC session to review the bidding on IHR implementation, sharing lessons learned from the many stakeholders.

The focus of BWC work this year encompasses efforts to assist States Parties in the event of a suspicious outbreak of disease or where there is a case of alleged use of a biological weapon. Issues for discussion include response, mitigation, and identification/attribution of such outbreaks/use. We will bring our FBI and CDC experts to Geneva to highlight their ongoing training efforts in promoting joint public health and law enforcement responses to intentional biological threats. In particular, FBI and CDC have developed best practices and guidelines on the conduct of joint criminal and epidemiological investigations of suspected BW terrorism. This model has gained world-wide acceptance through successful coordination of bilateral and multilateral trainings. We also intend to host a meeting shortly after the August Expert's Meeting to share information on bio-risk management training, standards and needs. We will likely also promote new scientific advances in genomics and developments in detection capabilities, as showcased by our national labs and the CDC.

As we begin to prepare for the Seventh 5-year BWC Review Conference in 2011, we will be accentuating the concepts put forth in the *Strategy* and working with partners to identify ways and means to continue the successful and productive approach that has characterized the work of the past eight years. The concepts of pathogen security, biosafety, codes of conduct for responsible behavior of life scientists, disease surveillance, and assistance in case of attack or suspected attack have weathered the test of time since they were put forth in 2001 as real-world, practical steps that States could take immediately. We will be looking for similar foci that will also enable us to better implement the *Strategy*.

State's Primary Foreign Assistance Mechanism to Implement the *Strategy*: Global Biological Engagement in Practice

State is also on the front lines of providing tangible assistance to states to address the challenges outlined in the *Strategy*. State's Biosecurity Engagement Program (BEP) was created in 2006 to reduce the bio-threat by preventing unauthorized access to potentially dangerous biological materials and dual-use infrastructure and expertise, while supporting legitimate efforts to combat infectious disease and enhance public and animal health worldwide. BEP has now matured into a \$37 million a year effort, which is active throughout the world to address biological threats. BEP is a threat-driven program designed to prevent, detect, and respond to existing and emerging global biological threats, focusing on

regions and countries where there is a nexus of terrorism, emerging infectious disease, and proliferation of biotechnology and high-containment laboratories. BEP provides support for and closely coordinates activities abroad to directly address several key objectives of the President's *Strategy*.

### Promoting Global Health Security

Promoting Global Health Security is a key objective of the *Strategy* that BEP promotes primarily through collaboration with such organizations as the Department of Health and Human Services and its components such as the CDC, the Food and Drug Administration and the National Institute for Allergy and Infectious Diseases (NIAID) within NIH; Department of Agriculture; the World Health Organization (WHO); and the World Organization for Animal Health (OIE). As an example, BEP is working with the CDC to develop a training program in Morocco to improve training among public health professionals to rapidly detect and properly diagnose disease outbreaks within the country. State is not only helping to support this effort to build this much-needed capacity within Morocco, but we are also providing additional funding to ensure that the laboratory component of this program is carried out in a safe and secure manner.

### Reinforcing Norms of Safe and Responsible Conduct

One of the difficult challenges addressed by the *Strategy* is establishing and reinforcing norms across the global life sciences community. BEP is working with the U.S. National Academies of Science (NAS) to identify gaps in the education system for life scientists on responsible conduct of research and to develop materials and methods that can inform scientists with a wide variety of scientific backgrounds and from a number of different cultures worldwide. We also are working to improve international best practices in laboratory biosafety and biosecurity, which helps to promote global health security, reinforces norms of safe and responsible conduct, and reduces the potential for exploitation of biological expertise, facilities, information, and material.

We help gain buy-in for this by sponsoring targeted efforts by biological safety associations across South and Southeast Asia and the Middle East that provide sustained training to life scientists and public and animal health professionals on biorisk management and responsible scientific conduct. For example, we have helped establish the Philippines Biosafety & Biosecurity Association (PhBBA) to promote best practices in laboratory biosecurity and biosafety. This year, through this partnership, BEP organized the first biorisk awareness workshop in Mindanao, which brought together more than 200 biological scientists from public, private, and academic institutions in Western Mindanao, with robust participation from the

Government of the Philippines. This model is now being replicated and tailored for application across the globe, and we are supporting additional efforts like this in Afghanistan, Egypt, Morocco, and across Africa.

Critical to our success has been our activities to reach across the governmental, academic and public health sectors to raise awareness to improve laboratory biosafety and biosecurity. For example, last year we sponsored a seminar in Baghdad, which was attended by representatives from several Baghdad-area academic and governmental organizations. We are now expanding efforts to promote biosafety and biosecurity in Iraq this year.

#### Reducing the Potential for Exploitation

Another key component of the *Strategy* is reducing the potential for terrorists to exploit knowledge and capabilities within the life sciences. BEP works with Sandia National Laboratories and the U.S. Naval Medical Research Unit No. 3 (NAMRU-3) to perform laboratory risk assessments in laboratories housing dangerous pathogens across South and Southeast Asia, the Middle East, and Africa. Once these assessments are complete, we will work with governments and laboratories to minimize the risk of potential accidents or misuse of infectious biological agents.

#### Expanding Our Capability to Prevent, Attribute, and Apprehend

Our major focus has been on developing the capability to prevent and reduce the likelihood of a deliberate or accidental release of a biological agent. We have provided funding and expertise for security upgrades to labs in high-risk areas to safeguard against theft and diversion, and to implement risk assessments that reduce the probability of an accidental release. We also coordinate our work with local law enforcement entities and INTERPOL to promote collaboration and information sharing with public health agencies and scientific communities so that these communities can provide early warning and detection if a suspicious incident or threat arises.

#### Communicating Effectively with Stakeholders

Effective communication with our international stakeholders across ministries, institutes, scientists and public and animal health organizations is critical to our success in reducing the biological threat abroad.

#### *The U.S. Can't Do it Alone: Role of the G-8 Global Partnership and UNSCR 1540*

In addition to our work through the BWC and BEP, we are also working with the international community through other critical multilateral mechanisms. The biological threat is global, and we cannot combat it alone. Chief among our activities to coordinate and promote additional assistance to counter the biological threat are the G8 Global Partnership and United Nations Security Council

Resolution (UNSCR) 1540. State has the lead for the USG for the G-8 Global Partnership, a 10-year (2002-2012), \$20 billion effort to prevent the spread of WMD worldwide that has traditionally focused on activities in the former Soviet Union to destroy chemical weapons, dismantle nuclear submarines, improve fissile material security, and employ former weapons scientists. This year, we are working closely with the Canadian G8 Presidency and with other G8 Partners to extend the Partnership beyond 2012 and to develop a broader effort to include addressing global biological risks, bringing to bear additional resources from Partner nations. The G8's *Global Initiative* provides a coordination mechanism to ensure that efforts are not duplicated and sustainable capacity is created in countries where multiple Partners are working. We hope that other Partners will be able to contribute funding to this effort, either through existing mechanisms like the World Health Organization or through direct collaboration with the U.S. or other nations. As an example, South Korea funded enhanced biosecurity programs in Afghanistan through the State Biosecurity Engagement Program and under the auspices of the G8 Global Partnership.

We are also working through the UNSCR 1540 mechanism. In February 2010, in coordination with DoD, the UN 1540 Committee, and the United Nations Office of Disarmament Affairs, State's BEP program co-organized an African Regional Workshop on Biosafety and Biosecurity that brought together

representatives from 19 African nations to discuss how the international community could help them successfully implement UNSCR 1540 to effectively manage biorisks within their countries. This effort builds upon the work to promote global health security, while reinforcing norms of safe and responsible conduct and taking responsible steps to reduce the potential for exploitation of materials and knowledge in several of these countries. As an example of these efforts, BEP is working with the U.S. CDC's Global Disease Detection Regional Center in Kenya to develop laboratory diagnostic and biosafety capacity. The Uganda National Academy of Sciences will host a regional conference on establishing and promoting good laboratory practices for funding safe, secure, and sustainable labs.

### Concluding Thoughts

The Department of State's serious efforts to address the biological threat have improved biological security and safety and are making an impact on global infectious disease detection. We are transforming the international dialogue between the many sectors within and outside the United States that affect our global health and security. Combating the biological threat provides us with a very real opportunity to improve international security, while providing a dual benefit of improving global health. This "Dual Benefit" makes it even more important that

we work within the U.S. and with our international partners to ensure that all of our efforts are coordinated and linked together to create global systems for detecting outbreaks of infectious disease, regardless of the cause. It is only through the process of cooperation within and between governments, academia and industry, and other non- and inter-governmental entities will we be able to truly make an impact on preventing bioterrorism and addressing global infectious disease outbreaks, whether naturally occurring or man-made.

Thank you.