Hearing of the Committee on Homeland Security and Governmental Affairs
United States Senate

"Addressing the Gaps in America's Biosecurity Preparedness"

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Statement for the Record

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Chairman Peters, Ranking Member Portman, and other Members of the Committee, thank you for your invitation to provide the perspective of the Bipartisan Commission on Biodefense during today's hearing, "Addressing the Gaps in America's Biosecurity Preparedness." It is a pleasure to be with you today to talk about federal biodefense programs, particularly those executed by the Department of Homeland Security (DHS).

The Commission is co-chaired by former Senator Joe Lieberman and former Secretary of Homeland Security, Governor Tom Ridge; with former Senate Majority Leader Tom Daschle, former Secretary of Health and Human Services, Representative Donna Shalala; former Representative Susan Brooks; former Representative Jim Greenwood; former Commissioner of the Food and Drug Administration Peggy Hamburg; and former Homeland Security Advisor Ken Wainstein serving as Commissioners. The Commissioners and I, as Executive Director, have addressed national and homeland security in various capacities for decades. Although we have left our previous government and military positions, we remain committed to public service and the health, safety, and security of our Nation.

In 2015, the Commission released our foundational report, *A National Blueprint for Biodefense: Major Reform Needed to Optimize Efforts,* containing 33 recommendations and 87 associated action items for addressing what we saw as serious capability gaps in national biodefense. Senator Lieberman and Governor Ridge appeared before this very Committee the day of that report's release to discuss its major findings and recommendations. A little over six years after that hearing – and two years into a deadly pandemic that has claimed the lives of more than 900,000 Americans – we find the government has implemented far too little of the *Blueprint*, and the Nation remains at catastrophic biological risk. In our 2020 follow up report, *Biodefense in Crisis: Immediate Action Needed to Address National Vulnerabilities*, we determined that only 3 of the 87 action items in our *Blueprint for Biodefense* had been completed, and that the Executive and Legislative Branches had taken little to no action to address 22 of them.

The federal government's response to the pandemic has illustrated the broad swath of departments and agencies involved in biodefense. Before COVID-19, much of the public would never have guessed that the White House would call upon the Federal Emergency Management Agency (FEMA) and the Department of Defense to coordinate federal activities for a public health emergency, let alone in all 50 states and 13 territories simultaneously. All Cabinet

Departments, the Intelligence Community and even the Smithsonian Institution possess biodefense responsibilities. Therefore, biological threats demand an all-of-government response.

Leadership is key to successfully coordinating federal biodefense activities. No one department has authority over the policies or spending of another. White House involvement will always be necessary. We originally recommended in our *National Blueprint for Biodefense* that the President put the Vice President in charge of defending the Nation against biological threats. While we continue to believe that the Vice President should play a valuable role in ensuring that the White House prioritizes biodefense, we also acknowledge that successive Presidents have chosen not to assign the Vice President this responsibility. In our report, *Biodefense in Crisis,* we recommended the creation of a Deputy National Security Advisor for Biodefense, overseen by the Vice President of the United States, and supported by National Security Council staff in two directorates: a Directorate for Global Public Health Security and Biodefense, and a Directorate for Domestic Public Health Security and Biodefense.

We appreciate congressional interest in our reports and the efforts by Congress to address our recommendations. For example, in the National Defense Authorization Act for Fiscal Year 2017, Congress required the creation of a National Biodefense Strategy, intended to align existing presidential directives, public laws, and international treaties, partnerships, and instruments that address biodefense, as well as all of the many federal policy, strategy, and guidance documents that address bits and pieces of biodefense. Recommendation 3 from our *National Blueprint for Biodefense* called for the development of such a strategy to govern and coordinate the federal biodefense enterprise. President Barack H. Obama signed this requirement into law, the Trump Administration developed and released the Strategy in 2018, and we understand that the Biden Administration is updating it currently, but the government has yet to fully implement it. Congress included additional language in the National Defense Authorization Act for Fiscal Year 2021 to require a more robust implementation plan for the Strategy. Even as the government identifies and addresses lessons learned from the novel coronavirus 2019 (COVID-19) pandemic, it is clear that sustained federal coordination will continue to be necessary to address future naturally occurring, accidentally released, and intentionally introduced biological threats.

We now have an opportunity to make investments across the federal government to address the vulnerabilities exposed by COVID-19. This moment calls for bold action and clear vision to address national biological crises. Last year, our Commission released a report, *The Apollo Program for Biodefense*, which proposed a 10-year sustained investment of $100 billion ($10 billion per year for 10 years) in biodefense science and technology research and development to better defend the Nation against biological threats. Through *The Apollo Program for Biodefense,* we believe that America can effectively take pandemic threats off the table within the next decade. We will release a follow-on report later this year with specific, actionable recommendations to inform implementation of this grand program by the Administration and Congress.

Like the rest of the Cabinet departments, DHS shares responsibility for the biodefense enterprise. All of the operational components within the Department engage in activities that contribute to national biodefense. For examples, FEMA possesses the logistical and emergency management

expertise to lead national response activities, provides direct assistance to non-federal governments through the State Homeland Security Grant Program, and plays a critical role in ensuring continuity of government during a large-scale biological event affecting national security. Agricultural inspectors within U.S. Customs and Border Protection (CBP) work to prevent disease carrying pests from crossing our borders. CBP and the Transportation Security Administration screen passengers at ports-of-entry when diseases move through the global transit system. The U.S. Coast Guard advises vessel owners and operators to report suspected crewmembers and passengers sick with diseases of concern to the Centers for Disease Control and Prevention as part of its longstanding responsibility to implement quarantine measures. The U.S. Secret Service maintains discreet protective measures to defend the White House from biological attacks and manages the biological risk to National Special Security Events. Starting in October 2021, U.S. Citizenship and Immigration Services began requiring immigration applicants to vaccinate against COVID-19. U.S Immigration and Customs Enforcement works to combat counterfeit pharmaceuticals and theft of intellectual property rights (such as for newly developed COVID-19 vaccines), and plays a critical role in export enforcement. The Cybersecurity and Infrastructure Security Agency previously addressed biodefense of critical infrastructure during the H1N1 influenza pandemic and issued guidance to the sectors early in the COVID-19 pandemic.

Additionally, the DHS Science and Technology Directorate supports biological attribution and characterization activities through the National Biodefense Analysis and Countermeasures Center (NBACC) located at Fort Detrick in Frederick, Maryland. The Federal Bureau of Investigation (FBI) also utilizes the National Bioforensic Analysis Center (housed within the NBACC facility) to analyze biological specimens related to criminal investigations. We have been concerned for six years about the current arrangement with regard to this Center. The FBI is the sole user of the Center, but they do not own it. Funds provided by DHS to support the Center add to the FBI budget, something not allowed by Congress. Clearly, this arrangement requires congressional reassessment.

Despite DHS contributions to national biodefense, the Department lacks a headquarters entity that supports the operational components and their activities in this regard. In 2017, the Department combined some of its existing chemical, biological, nuclear, and radiological functions into an Office of Countering Weapons of Mass Destruction (CWMD). Congress subsequently authorized the Office a year later. Though Department officials envisioned CWMD as a central hub for weapons of mass destruction (WMD) policy and activities within the Department, authorizing legislation did not reflect that mission. The most recent authorizing legislation created a domestic WMD detection office, modeled in large part on the former Domestic Nuclear Detection Office, despite the significant differences between how DHS executes its nuclear port monitoring activities and how DHS tries to detect biological and chemical agents. CWMD continues to be little more than the sum of its parts, focusing on legacy programs that existed before the Office's creation, trying to incorporate elements from other parts of DHS (e.g., WMD intelligence and analysis, removed from the Office of Intelligence and Analysis) and struggling to explain why some elements regarding WMD (e.g., the Office of

Bombing Prevention, WMD policy) remain outside of CWMD. It also appears that DHS is moving the position of the Chief Medical Officer out from CWMD (where it had been subsumed when DHS created this office) to the Office of the Secretary, consolidating health care, occupational health, and public health activities in one organizational element led by the chief medical advisor to the Secretary of Homeland Security. While absolutely reasonable, questions arise as to how the Chief Medical Officer can execute their congressionally mandated responsibility to oversee programs (e.g., BioWatch, National Biosurveillance Integration Center) while the assistant secretary for CWMD actually runs these programs.

The CWMD Office focuses largely on two programs addressing biosurveillance and biological detection. The former, known as the National Biosurveillance Integration Center (NBIC), was intended to collect and analyze biosurveillance data from other federal departments and agencies to enable early warning and shared situational awareness. Such a capability would prove critical to tracking the spread of infectious diseases. However, NBIC lacks the authorities and resources necessary to achieve this goal fully. Congress did not mandate that other federal departments and agencies provide this data to DHS. NBIC works endlessly to convince others to provide data to the Center, receives little data from a few departments and agencies, and relies on public sources of information for many of their products.

The state of the CWMD biological detection program – BioWatch – provides even greater cause for concern. The George W. Bush Administration deployed the system in 2003 to provide a modicum of biological detection capability against potential attacks in advance of the 2004 presidential election. Located in 35 metropolitan jurisdictions, the system collects air samples in outdoor public spaces that must then be manually gathered at least once every 24 hours. Public health laboratories then test the samples for the presence of five biological agents. However, the equipment does not perform well, and the system takes too long to produce results. Hospital admissions would indicate a biological event long before the system definitively reported a positive test result. Though decisionmakers knew at the time of deployment that the technology was imperfect, and that they would eventually need to replace it, the system has remained virtually unchanged for almost two decades. It is important to note that the federal government's national biological detection system could not assist with tracking the spread of COVID-19, the worst biological event in a century, because they designed the system to detect only a handful of previously weaponized biological agents.

In 2018, CWMD launched a new initiative – Biodetection 21 or BD21 – to finally identify and replace aging BioWatch technology. However, this effort has run into its own problems. The core of the program was an unproven algorithm that would speed time to detection. The program would also only address indoor detection initially, leaving existing BioWatch systems (composed of outdoor detectors) in place. CWMD paused BD21in October 2021 after recognizing the limitations of anomaly detection, and after previously pausing the program for other reasons. Officials are currently determining next steps for the program. In the meantime, DHS continues to spend $80 million in taxpayer money each year for the BioWatch program.

Recommendation 31 from our *National Blueprint for Biodefense* called for the development of an advanced environmental detection system to replace BioWatch. The Commission further examined the program and potential solutions in our 2021 report *Saving Sisyphus: Advanced Biodetection for the 21st Century*. Understanding the political reality that Congress will not terminate BioWatch without a replacement in place, *Saving Sisyphus* presents short and long-term action plans to both deploy better technology right now and to create a technology development process to regularly refresh both the biological detection mission and technology. A research and development strategy that regularly reassesses the mission of the system and the needs of participating jurisdictions is also essential. Any BioWatch successor must also keep pace with the evolution of technology and the ever-changing nature of the biological threat. If CWMD is correct that the basic science needed to produce valid and reliable detectors for BioWatch does not exist, then it should not be CWMD that engages in research and development, it should be the DHS Science and Technology Directorate. However, we are confident that technology already exists that would greatly improve the program. For example, if CWMD chooses to continue pursuing indoor biodetection capabilities, then the Department of Defense has already produced, emplaced, and generated performance data for indoor biodetectors, currently manufactured by private sector vendors. The National Aeronautics and Space Administration (NASA) has also produced viable technology – paid for by CWMD – that could be adapted for use in biodetection. The National Laboratories produced the original BioWatch technology more than 18 years ago. It stands to reason that they could produce better technology now.

CWMD also faces issues with its authorization. Current statute does little more than re-label the part of the Homeland Security Act that previously authorized the Domestic Nuclear Detection Office, now a part of CWMD. The result is language that prioritizes nuclear activities and says little about either chemical or biological responsibilities, authorities, or programs. Congress included a sunset in that authorization, which is set to expire at the end of 2023. Should Congress decide to reauthorize CWMD, this statute requires extensive work to provide additional (and in some cases, initial) guidance and clarification. Congress must make its intent known for this Office. There is a vast difference between a domestic detection office and the homeland security equivalent of the Defense Threat Reduction Agency, yet another construct adopted and discarded by CWMD previously. Congress must also clean up legislation that previously addressed the Chief Medical Officer and their responsibilities, and clarify who should be in charge of what. Additionally, should Congress decide to let the CWMD authorization sunset as currently stipulated in statute, then it must make clear what it expects to happen at that time. It is unclear whether the authorization will disappear but the organizational element will not, or whether the organizational element would cease to exist. Lastly, Congress must direct CWMD to directly support the DHS operational components in more than an advisory capacity.

The Commission also believes there is value in establishing a regular review process of DHS biodefense activities. We recommend that Congress require DHS to compile and submit an annual report on its biodefense policies, programs, and expenditures as they align with the National Biodefense Strategy, including those undertaken by CWMD and the Science and

Technology Directorate, as well as those undertaken by the DHS operational components. As DHS should already be providing much of this information in support of the congressional mandated biodefense cross-cut, it should be easy for the Department to provide this information to Congress as well.

This concludes my written remarks. We appreciate the Committee's interest in our Commission since its inception. I also thank Hudson Institute, which serves as our fiscal sponsor, and all of the organizations that support our efforts financially and otherwise. With this testimony, I am submitting eight of the Commission's reports. Thank you again for inviting me to testify today. I look forward to answering your questions and working with you to defend the Nation against biological threats.