Chairman Lynch, Ranking Member Hice, and Members of the Subcommittee: Thank you for your invitation to provide the perspective of the bipartisan Blue Ribbon Study Panel on Biodefense. On behalf of our Panel – former Senator Joe Lieberman and former Governor Tom Ridge, Panel co-chairs, and former Senate Majority Leader Tom Daschle, former Representative Jim Greenwood, former Homeland Security Advisor Ken Wainstein, and former Homeland Security and Counter Terrorism Advisor Lisa Monaco – I am glad for the opportunity to share our findings and recommendations with regard to U.S. biodefense, preparedness for biological events, and implications of antimicrobial resistance for national security.

The Members of our Panel, and myself 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 public health, safety, and security of the country.

We are greatly concerned about catastrophic biological risk to the Nation produced by large-scale biological events that affect national security because they affect the functioning of society. Generally, the biological threat is categorized as intentionally introduced (i.e., bioterrorism, biological warfare), accidentally released (e.g., laboratory accidents), or naturally occurring (e.g., pandemic influenza, Zika). All of these are exacerbated by antimicrobial resistance.

Biodefense is not a new requirement for our country. At one time, the United States developed both biological weapons and the ability to defend against them. We collected intelligence on our enemies’ activities (although admittedly, we missed the continued activities of the Former Soviet Union after we ceased our own offensive biological weapons program). We rightly feared the specters of horrific diseases like smallpox and worked hard to eradicate them with vaccines, antibiotics, and other medicines. But over time, as our public health and health care systems improved and we decided not to engage in biological warfare, we reduced our national emphasis on, and support for, biodefense.

Our country is not immune to the diseases that affect the rest of the world. We do not escape the impact of pandemic influenza, most clearly demonstrated by the H1N1 pandemic of 2009-2010. Zika has spread to our country and increased the rate of birth defects accordingly. Ebola, Middle East Respiratory Syndrome (MERS),
Severe Acute Respiratory Syndrome (SARS), Extensively Drug-Resistant Tuberculosis (XDR-TB), and many other naturally occurring diseases continue to affect our country. Emerging diseases that have yet to be detected, much as Zika once was, are making their way toward our shores as we speak.

The biological threat has only increased since the anthrax events of 2001. We suspect North Korea and other countries of continuing or creating biological weapons programs. Al Qaeda, the Islamic State of Iraq and the Levant, and other terrorist organizations have been quite vocal about their active pursuit of biological weapons. We are not alone in expressing our concerns. The United Nations, as well as members of the European Union such as France, Germany, and the United Kingdom; Russia; and other countries have also expressed their suspicions and apprehensions.

Too close to the Rayburn House Office Building for comfort, letters containing anthrax spores were received in the Hart Senate Office Building almost 18 years ago, shutting it down for three months. One of our Panel Members, former Senate Majority Leader Tom Daschle, was the target of one of those letters. Additional letters wreaked havoc in other locations up and down the East Coast. Anthrax killed five, sickened 17 others, reduced business productivity, and forced us to engage in costly decontamination, remediation, and treatment after the fact. The Nation was not adequately prepared, and it showed.

Our Panel has assessed and continues to assess the state of our country’s biodefense. We scrutinize the status of prevention, deterrence, preparedness, detection, response, attribution, recovery, and mitigation – the spectrum of activities necessary for biodefense. In 2015, we issued our first report, A National Blueprint for Biodefense: Major Reform Needed to Optimize Efforts. As expected, we found both strengths and weaknesses, including serious gaps that four years later continue to make the Nation vulnerable. In short, the Nation is not prepared for biological outbreaks, bioterrorist attacks, biological warfare, or accidental releases with catastrophic consequences.

Our report contains 33 recommendations with 87 associated short-, medium-, and long-term programmatic, legislative, and policy action items, which we believe will individually improve our Nation’s ability to defend against biological threats. Collectively, they serve as a blueprint for national biodefense.

Since we released the Blueprint for Biodefense, we have continued to assess and present our findings in other reports, including Defense of Animal Agriculture (2017), Budget Reform for Biodefense: Integrated Budget Needed to Increase Return on Investment (2018); and Holding the Line on Biodefense: State, Local, Tribal, and Territorial Reinforcements Needed (2018). We have also continued to assess federal implementation of our recommendations. We issued our first assessment, Biodefense Indicators, in 2016, one year after we released the Blueprint for Biodefense, and found that events were outpacing federal efforts to defend the Nation against biological threats. We are working on our next assessment now. We will give credit where credit is due, but we can already state unequivocally that the Nation remains at catastrophic biological risk.
Our third recommendation in the *Blueprint for Biodefense* called for the development and implementation of a National Biodefense Strategy. The goal was for the federal government to take 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, and create a comprehensive Strategy to replace them all. Required by Congress in the National Defense Authorization Act of Fiscal Year 2017, signed into law by President Obama, and produced by the Trump Administration in September 2018, the National Biodefense Strategy now exists to guide defense against biological threats.

While we acknowledge the effort made in formulating this Strategy, we also recognize the need to add more detail to the goals and objectives provided in the Strategy. They comprise only the beginning of an implementation plan. The White House charged the Department of Health and Human Services (HHS) with this task. Gathering information on all biodefense activities undertaken across the federal government and the costs associated with those activities has proven to be the enormous challenge our Panel always knew it would be. One department cannot tell other departments, independent agencies, and independent institutions what to do and that includes providing the information needed to develop the Implementation Plan for the National Biodefense Strategy. We appreciate the support of the National Security Advisor of this Strategy, but also understand the limitations of that position to direct the federal government to act, particularly when it comes to implementing a broad, crosscutting strategy.

The Nation also still lacks strong centralized leadership of biodefense at the highest level of government. No single individual has been charged with the responsibility and authority to create a cohesive, effective, and efficient biodefense enterprise. At least 24 federal departments, independent agencies, and one independent institution are responsible for carrying out programs and policies for biodefense. They need to work in tandem to defend the Nation against these threats, with no confusion over goals and without duplicative expenditures we cannot afford. To make this happen, we need a leader at the White House with the policy, political, and budgetary authority sufficient to achieve what has never been achieved before in this arena. This person must set priorities, goals, objectives, and milestones for biodefense, and hold members of the Executive Branch accountable for meeting them. We stand by our recommendation that the Vice President of the United States should take charge.

Additionally, because of the substantial participation required by non-federal partners, such a leader must take also charge of intergovernmental collaborative efforts. State, local, tribal, and territorial governments, and their non-governmental partners, will feel and respond to the immediate impact of biological events. There is no guarantee that federal support will arrive within the first few hours after a biological event occurs. The federal government must greatly strengthen non-federal capabilities and capacities, by increasing the support and access it provides to them. Collaboration, coordination, and innovation are all needed – for governmental policy, public and private sector investments, science and technology, intelligence activities, and public engagement. We need to foster entrepreneurial thinking and develop radically effective solutions.
These are not abstract concepts. They have very real implications for the security of the American people. If rectified, for example, hospitals would have the guidance they need to handle diseases like Ebola, city governments would have the support they need to rapidly dispense medical countermeasures to the masses, and industry would have the incentives and direction they need to solve our greatest challenges in biodetection.

Antimicrobial resistance is of great concern. Resistance has occurred unintentionally through the over-prescription and -use of antibiotics and other antimicrobials worldwide. The scientific community initially responded by developing new and stronger antimicrobials. It continues to do so, but efforts are also underway to prevent overuse.

Additionally, antimicrobial resistance has implications for national security. As we have seen elsewhere in the world, a nation or region can be taken down by disease without effective treatments. Ebola clearly illustrates this point today. The 1918 influenza pandemic is an older example. Antimicrobial resistance can also be intentionally produced with little in the way of resources and high-science. Imagine how much worse the anthrax events of 2001 would have been if that anthrax had been antibiotic resistant.

Antimicrobial-resistant organisms are now uncomfortably pervasive, including in hospitals throughout the United States. They have become so widespread and the diseases they cause so severe that standard policy for all hospitals nationwide is to discharge patients as soon as possible, in order to prevent infection with these pathogens.

This policy is not enough to ensure our national security and would be inapplicable if a large-scale biological event (caused by an attack, accidental release, or the spread of an otherwise naturally occurring disease) occurred in the country. It would be impossible to simply discharge affected populations. They would have nowhere to go, especially if other areas in the United States were struggling with the same event and if the disease in question was contagious.

We should take the opportunity afforded to us now to do more than just reduce the average time patients spend in hospitals. The federal government should develop scenarios involving attacks and pandemics characterized by antimicrobial-resistant disease, determine how the Nation would respond, and work to prepare accordingly. The public and private sectors should work together on scientific and technological advancements that could obviate the need for antimicrobials at all. The implications of antimicrobial resistance should be taken into consideration by all plans and strategies, most especially the National Biodefense Strategy.

Finally, Congress plays a critical role in conducting oversight of and providing authorities for biodefense. Our reports provide a number of recommendations to amend legislation and coordinate congressional oversight. They also provide suggested topics in need of additional oversight that we hope you and your colleagues on other committees will consider. We also recommend the development of a joint, bipartisan, congressional agenda for biodefense.
As we close, I ask you to keep the concerns of our citizenry in mind. They are neither apathetic nor unaware. They were horrified when Ebola came to the United States and equally appalled by the inadequate federal response. Thousands are still sick and dying of Chikungunya, a disease for which – like Ebola – we still do not have a cure. They are aware of the increased rate of birth defects due to Zika. They were aghast to see chemical weapons used in the Middle East, especially given the proximity of our troops, and they believe that other nations that possess chemical weapons are also likely possess or produce biological weapons. They watch television shows and movies – some of which are out right now – featuring diseases and their devastating effects on society.

The American public is close to this issue and they want the government to do something about it, before biological weapons, accidental releases from laboratories, new diseases, or antimicrobial resistant diseases kill their neighbors, their friends, or their families. It is too late to get ahead of the biological threat – it is already out there – but we can get ahead of its impact.

Once again, thank you for this opportunity to provide our perspective on biodefense, preparedness, and the implications of antimicrobial resistance for national security. I would also like to thank Hudson Institute, which serves as our fiscal sponsor, and all of the organizations that support our efforts financially and otherwise. We look forward to working with you to strengthen national biodefense.

Please see our bipartisan report, *A National Blueprint for Biodefense: Major Reform Needed to Optimize Efforts*, and our other reports for more details regarding the following 33 recommendations, including associated action items:

1. Institutionalize biodefense in the Office of the Vice President of the United States.
2. Establish a Biodefense Coordination Council at the White House, led by the Vice President.
3. Develop, implement, and update a comprehensive national biodefense strategy.
4. Unify biodefense budgeting.
5. Determine and establish a clear congressional agenda to ensure national biodefense.
6. Improve management of the biological intelligence enterprise.
7. Integrate animal health and One Health approaches into biodefense strategies.
8. Prioritize and align investments in medical countermeasures among all federal stakeholders.
9. Better support and inform decisions based on biological attribution.
10. Establish a national environmental decontamination and remediation capacity.
11. Implement an integrated national biosurveillance capability.
12. Empower non-federal entities to be equal biosurveillance partners.
13. Optimize the National Biosurveillance Integration System.
14. Improve surveillance of, and planning for, animal and zoonotic outbreaks.
15. Provide emergency service providers with the resources they need to keep themselves and their families safe.
16. Redouble efforts to share information with State, local, tribal, and territorial partners.
17. Fund the Public Health Emergency Preparedness cooperative agreement at no less than authorized levels.
18. Establish and utilize a standard process to develop and issue clinical infection control guidance for biological events.
20. Provide the financial incentives hospitals need to prepare for biological events.
21. Establish a biodefense hospital system.
22. Develop and implement a Medical Countermeasure Response Framework.
23. Allow for forward deployment of Strategic National Stockpile assets.
24. Harden pathogen and advanced biotechnology information from cyber-attacks.
26. Implement military-civilian collaboration for biodefense.
27. Prioritize innovation over incrementalism in medical countermeasure development.
28. Fully prioritize, fund, and incentivize the medical countermeasure enterprise.
29. Reform Biomedical Advanced Research and Development Authority contracting.
30. Incentivize development of rapid point-of-care diagnostics.
31. Develop a 21st Century-worthy environmental detection system.
32. Review and overhaul the Select Agent Program.
33. Lead the way toward establishing a functional and agile global public health response apparatus.