

**JOINT HEARING: STRENGTHENING BIOLOGICAL
SECURITY: TRADITIONAL THREATS AND
EMERGING CHALLENGES**

JOINT HEARING

BEFORE THE

SUBCOMMITTEE ON ASIA, THE PACIFIC AND
NONPROLIFERATION

OF THE

COMMITTEE ON FOREIGN AFFAIRS
HOUSE OF REPRESENTATIVES

JOINT WITH

COMMITTEE ON ARMED SERVICES
SUBCOMMITTEE ON INTELLIGENCE AND EMERGING
THREATS AND CAPABILITIES

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JOINT HEARING: STRENGTHENING BIOLOGICAL SECURITY: TRADITIONAL THREATS AND EMERGING CHALLENGES

Friday, October 2, 2020

HOUSE OF REPRESENTATIVES,
SUBCOMMITTEE ON ASIA, THE PACIFIC, AND
NONPROLIFERATION,
COMMITTEE ON FOREIGN AFFAIRS,
JOINT WITH THE
SUBCOMMITTEE ON INTELLIGENCE, EMERGING THREATS
AND CAPABILITIES,
COMMITTEE ON ARMED SERVICES,
Washington, DC

The subcommittees met, pursuant to notice, at 10:01 a.m., in room 2172 Rayburn House Office Building, Hon. Ami Bera [chairman of the subcommittee on Asia, the Pacific and Nonproliferation] and Hon. James R. Langevin [chairman of the subcommittee on Intelligence, Emerging Threats and Capabilities] presiding.

Mr. BERA [presiding]. This joint subcommittee hearing with the House Foreign Affairs Subcommittee on Asia, the Pacific, and Nonproliferation and the House Armed Services Subcommittee on Intelligence and Emerging Threats and Capabilities will come to order.

Without objection, the chair is authorized to declare a recess of the committee at any point, and all members will have 5 days to submit statements, extraneous materials, and questions for the record, subject to the length limitation in the rules. To insert something into the record, please have your staff email either subcommittee clerk.

As a reminder to members, please keep your video function on at all times, even when you are not recognized by the chair. Members are responsible for muting and unmuting themselves, and please remember to mute yourself after you finish speaking. Consistent with H.Res. 965 and the accompanying regulations, staff will only mute members and witnesses, as appropriate, when they are not under recognition to eliminate background noise.

I see we have a quorum, and will now recognize myself for opening remarks. I will, then, be followed by the acting ranking member, Mr. Perry; Chairman Langevin, and then, Ranking Member Stefanik. I will, then, recognize members in order of seniority, alternating between Democrats and Republicans and Foreign Affairs and Armed Services members.

Before we get started and before I do my opening statement, I think it would be remiss for us not to mention the President and the First Lady and know that they are in our thoughts and prayers

and hope for a speedy recovery; and also, the tens of thousands of Americans that test positive every day for this virus. They are in our thoughts.

And it does underscore that this is a virus. This is a viral threat. It does not know if we are a Democrat or a Republican. It does not know what God we worship, what our country of origin is. It is a virus, and it does underscore the importance of this topic that we are talking about today, but it does underscore that this is naturally occurring events, but what bad actors may see, as they see a threat like this that really has brought the entire world to its knees and certainly has wreaked economic havoc, both here domestically, but internationally.

I want to thank the witnesses for being here today. Both having the Department of Defense and the State Department again underscores the importance of this. In my focus as subcommittee chairman, under the guise of nonproliferation, we spend a lot of time talking about nuclear threats, but what we are seeing right now is the real vulnerability to biologic threats.

Just to put that into context, we have not had an aircraft carrier brought to its knees by a kinetic force, a missile or anything like that, but we just saw in this past year an aircraft carrier brought to port because of a virus. And that really does underscore what I worry about.

And when I think about this, I think about it in a couple of different ways. It is very difficult to obtain nuclear capabilities and nuclear technology. Yet, we dedicate hundreds of personnel and international organizations like the IAEA and others to reduce that nuclear threat. That is totally appropriate. We want to make sure nuclear technology and weaponry does not end up in the hands of bad actors.

But if I put my doctor-scientist hat on, the availability of technologies to alter viruses and do genetic editing, the knowhow and the capabilities are rapidly increasing. And that is something that keeps me awake at night. Again, we know there are bad actors out there. Certainly, post-9/11, many of us prepared. We saw anthrax; we saw other threats. We worried about smallpox, and so forth. And that is something that I think in a bipartisan way Congress, working with the administration, should really think about what are the things that we have to do to move ahead.

I look forward to the witnesses' testimony. There are several areas that I think about and I am going to be curious about from the witnesses. As we defeat COVID-19, and spend the billions of dollars, and build the infrastructure to defeat this virus, I also think we should strategically be thinking about how we use those resources to also prepare for biosurveillance, to be ready for the next—whether it is a naturally occurring virus or a biologic threat—but also think about how we have those dual-use capabilities as we build that infrastructure to do biosurveillance for man-made threats.

Also, as we move forward, we have got the biological, the BWC, but I think we need stronger, multilateral organizations with like-minded allies that we can work with. And again, I would be curious how DoD and State are thinking about creating those multilateral institutions.

And then, last, when I think about the ethics of gene editing and where that is going, and the technology, we really have not created the standards and norms that say this is appropriate for advancing of science, but this really is a little bit dangerous and you probably ought not to be playing around with genes in this particular way, and creating those standards and norms and what that would look like. And again, I think that is an appropriate place where the scientific community, Congress, again working with the administration, ought to put those standards in place, not just for the United States, but for the international community.

So, again, our thoughts and prayers are with the President and First Lady and those thousands of Americans. And I would be remiss if I did not just put my doctor hat on for a second. As we enter the fall and winter, let's do what we can to keep everyone safe. Let's wear face coverings. Let's continue to practice physical distancing. Let's continue to wash our hands and practice good hygiene. Let's avoid large indoor gatherings that we have seen really do act as super-spreading events. And the most important thing that we can do right now as we enter the fall is everyone go out there and get your flu shot. Please get your flu shot.

So, with that, let me recognize the ranking member, Mr. Perry, for 5 minutes of opening statements.

Mr. PERRY. Thank you, Chairman Bera.

And thank you to our distinguished panel for offering your counsel today.

The coronavirus pandemic has highlighted the potential for increased biosecurity threats and what can happen when irresponsible actors disregard international agreements for the sake of self-prevention. A strong international biosecurity regime only works when its constituent members agree to make it work. We need to assess the shortcomings of U.S. multilateral engagements and determine where improvements need to be made.

The 2005 International Health Regulations went into force in 2007 and called on all nations to be compliant by 2012. However, by 2012, only about 20 percent of all countries were compliant, and even today, most countries have still not complied with the 2005 regulations.

This administration has taken a significant amount of criticism for questioning U.S. engagement in institutions like the World Health Organization. Let me be clear about this. The World Health Organization's complicity in spreading the coronavirus should not be rewarded with the United States' indifference to its failures. The WHO's strong affiliation with the Global Health Security Agenda also raises significant questions about GHSA's long-term efficacy.

There is an obvious issue of a lack of enforcement in the international community. Different levels of investment in biosecurity lend itself to a permanent condition of moral hazard, where select communities like the United States are compensating for the lack of investment from other States. Despite our best efforts to stymie the threat of biothreat, there is only so much we can do alone.

Key programs like the State Department's Biosecurity Engagement Program cannot use funds in countries like China, Cuba, Iran, North Korea, Sudan, or Syria, despite the fact that several

of these countries have experimented with biological weapons and are likely candidates for future offenses.

Countries like North Korea have a clearly offensive biological weapons program with no end in sight. How do we confront the fact that we have an unreliable international biological weapons control regime? More importantly, in measuring success against the spread of biothreats, what exactly does success look like when China dominates several key institutions? As it stands, China has provided a gift to non-State actors that wish us harm. They have shown us and the world the impact that a potential bioweapon can have on the American economy as well as our society. Threats to our way of life have multiplied exponentially as a result of the coronavirus, and this timely hearing will be confronting that uncomfortable truth.

I am also grateful to have our witnesses before us today, as they speak more about synthetic biology and gene manipulation. We need to find out more about the national security implications that synthetic biology can pose to the United States, especially in light of the fact that several countries are working with extremely hazardous pathogens in subpar laboratory settings.

All that being said, I do also offer my prayers and best wishes to the First Family, to Hope Hicks, and to anybody that has been affected by the virus, whether they have contracted or whether it has occurred in their family members, loved one, or community. We are all dealing with it one way or the other.

I certainly thank the chairman for the time, and I yield the balance.

Mr. BERA. Thank you, Mr. Perry.

Let me now recognize the chairman of the Intelligence and Emerging Threats and Capabilities Subcommittee of the Armed Services Committee, Chairman Langevin.

Mr. LANGEVIN. Thank you, Chairman Bera.

And I want to begin by also acknowledging and saying that the President and the First Lady and the First Family are in my thoughts and prayers. I know they are all in our thoughts and prayers right now, and the people around the President's administration who may also be experiencing effects of the virus. We pray that they all have a quick and a full recovery.

Mr. Chairman, I want to thank my colleagues on the House Foreign Affairs Subcommittee on Asia, the Pacific, and Nonproliferation, and particularly, you, Chairman Bera, and Ranking Member Yoho. And I know Mr. Perry is standing in for the ranking member right now. I want to thank you all for hosting this timely joint hearing on biosecurity. I recognize Ranking Member Stefanik as well as my colleagues on the Subcommittee Intelligence and Emerging Threats and Capabilities.

This is a topic which, as we have seen of late, is vital to our nation's security. I am very pleased that we are holding this very important joint hearing.

Emerging biological techniques such as gene sequencing, gene editing, and synthetic biology are rapidly changing the scope and scale of biological threats and could lead to an increase in biological weapons. Adding to the challenge, biological threats are easier to create than other weapons of mass destruction. Used in concert,

cyber weapons and biologic weapons enable a rogue actor to inflict major damage on a military power.

Just last month, the Republic of Georgia's health ministry suffered a cyber-attack from abroad on the data base that stores medical documents and national COVID-19 pandemic management information. We know Russian hackers have targeted organizations involved in COVID-19 research and vaccine development, including those in the U.S., the U.K, and Canada.

So, these attacks and the current global pandemic underscore the import of collective scientific research preparedness and security across the interagency and with our allies, and for national and economic security. In a time when the United States is struggling to respond to the spread of a novel, highly infectious pathogen, we must ensure the interagency is working together to respond to the current pandemic and advance the collective effort to strengthen biological security across the range of threats.

The Defense Threat Reduction Agency, though its execution of the Department of Defense's Cooperative Threat Reduction/Biological Threat Reduction Program, and its Technical Reach back analysis cell, has been receiving foreign partner requests for preparedness and detection, including providing biosafety, biosecurity, and biosurveillance support to aid in detection, diagnosis, reporting, and modeling related to the COVID-19 outbreak.

There have been many good examples of the BTRP-trained local professionals in countries like Guinea, Liberia, Cape Verde, Jordan, and Thailand. They diagnosed and confirmed the first cases of COVID-19 in their countries.

Yet, in the face of known and emerging biological threats, and the impact they could have on our national security and economy, and as a pandemic that could, arguably, present the single biggest threat to our country while starting to spread across the globe, the President's budget request was delivered to the Hill in February with a 36 percent cut to the Cooperative Threat Reduction Program's funding from last year's enacted level. At a time when the United States is struggling to respond to the spread of a highly infectious new virus, we are alarmed by the Department's significant reduction in the budget request for a mission of detecting and confronting biological threats to the United States.

Thankfully, the House has acted. In our fiscal year 2021 National Defense Authorization Act, H.R. 6395 added back \$135 million to the CTR Program. Eighty-nine million dollars of that was additional funding for the Cooperative Biological Engagement Program.

Additionally, the Department of Defense's Chemical and Biological Defense Program was primed to be a key partner in the fight against COVID-19. Its medical program funds and manages efforts to develop medical countermeasures, vaccines, therapeutics, and pretreatments. Its Physical Program funds and manages efforts to develop surveillance and detection technologies, diagnostics, personal protective equipment, and decontamination systems.

To prepare against potential unknown threats, CBDP built expertise and capabilities to address novel pathogens, making it an ideal program to deal with the emergence of novel coronavirus. We are interested in hearing today whether the program was quickly

and efficiently directed to participate in the national response to the COVID-19 pandemic.

So, these are obviously challenging times, and we need to double down on these programs. And we need to make sure that we are, in fact, prepared for the next biological or chemical event that could affect the country and make sure that we have all the tools and resources in place to respond effectively to keep our country and, indeed, perhaps the world, safe.

We look forward to hearing more about the many efforts of both departments today, what we can do to help ensure your organizations have the authorities and resources needed to prepare for the emerging threats of both today and tomorrow, and how we can ensure that your departments are ready and able to act swiftly and decisively in the next crisis.

So, I join the host in thanking all of you, and especially our witnesses, for joining us today. And I yield back to Chairman Bera.

Mr. BERA. Thank you, Chairman Langevin.

Let me now recognize the ranking member of the Intelligence and Emerging Threats and Capabilities Subcommittee of the Armed Services Committee, Ranking Member Stefanik.

Ms. STEFANIK. Thank you, Chairman Bera.

I also want to echo my colleagues and send, on behalf of New York's 21st congressional District, our thoughts and our prayers with the First Family, the White House staff, and all the American people who have been impacted by the COVID virus.

I would like to express my appreciation to you, Chairman Bera and Ranking Member Yoho, as well as Chairman Langevin and my colleague, Mr. Perry, for hosting this hearing, and thank you to the members of the two subcommittees.

Thanks to the witnesses from the Departments of Defense and State for being here today.

The issue of biosecurity is one of national importance. As I have stated previously, while the Department of Defense faces urgent challenges daily, we can never afford to lose sight of the critically important mission of countering weapons of mass destruction and, in particular, biological threats.

The unpredictable nature of these threats requires that we continue to adapt our approach and iterate our response. We must learn from the current crisis and adjust our strategy to more effectively and proactively detect and respond to the next event. This will surely not be the last biological crisis this nation and this world faces.

I am particularly interested in how your organizations and the Federal Government writ large can more effectively use new datasets and artificial intelligence to truly modernize our bio-surveillance efforts. We must mature our capacity to anticipate and monitor when and where a biological event may occur and model how a pathogen, either naturally occurring or manmade, is likely to spread.

This obviously must be a global effort. And the partnerships that the Department of Defense and the Department of State have developed will be critical early warning beacons to inform our collective domestic response.

Programs like the Cooperative Threat Reduction, and specifically, the Biological Threat Reduction Program are essential to maintaining our global footprint and the building of the relationships that protect our forward-deployed service members and national interests.

The current COVID crisis has served as an affirmation that biological threats require a whole-of-government response, not just the two departments represented here today, but inclusive of Health and Human Services, Homeland Security, and our State and local officials. The strength of the partnership between your organizations and the quality of these relationships you develop with our foreign partners and domestic agencies will underpin the effectiveness of our future biosecurity efforts.

Thank you again to our witnesses, and I yield back to the chair.

Mr. BERA. Thank you, Ranking Member Stefanik.

And before I introduce the witnesses, I ask unanimous consent that non-committee, if any, be allowed to participate in today's hearing after all committee members have had an opportunity to ask questions. Is there objection?

[No response.]

Without objection, non-committee members will be recognized at the appropriate time.

Let me now go ahead and introduce our witnesses. First is Deputy Assistant Secretary of Defense for Countering Weapons of Mass Destruction, Mr. David Lasseter. Mr. Lasseter oversees all CWMD policy issues at the Department. This includes preventing the proliferation of WMD-related materials, the Defense Department's Cooperative Threat Reduction Program, and chemical, biological, radiologic, and nuclear defense.

Next, we will hear from the Director of the Defense Threat Reduction Agency, Mr. Vayl Oxford. Mr. Oxford leads DTRA's mission to safeguard the U.S. and its allies from weapons of mass destruction. DTRA spearheads the Defense Department's Biological Threat Reduction Program.

From the State Department, we will first hear from Acting Assistant Secretary in the Bureau of Oceans and International Environmental and Scientific Affairs, r. Jonathan Moore.

And finally, we will hear from the Deputy Assistant Secretary for Nonproliferation Programs at the Bureau of International Security and Nonproliferation, Mr. Phillip Dolliff. He currently oversees a range of State Department nonproliferation programs, including Cooperative Threat Reduction and Export Control Programs which work to reduce nonproliferation threats worldwide.

I will now recognize each witness for 5 minutes. And without objection, your prepared written statements will be made part of the record.

I will first call on Mr. Lasseter for his testimony.

STATEMENT OF DAVID LASSETER, DEPUTY ASSISTANT SECRETARY OF DEFENSE FOR COUNTERING WEAPONS OF MASS DESTRUCTION, U.S. DEPARTMENT OF DEFENSE

Mr. LASSETER. Good morning, Chairmen Langevin and Bera, Ranking Member Stefanik, Acting Ranking Member Perry, and all committee members.

I, too, want to extend my thoughts and prayers to the President and First Lady—

Mr. BERA. Mr. Lasseter, is your microphone on?

Mr. LASSETER. Yes, sir.

Mr. BERA. Okay.

Mr. LASSETER. It is on. Can you hear me better now?

I first want to also extend my thoughts and prayers to the President and First Lady and all those impacted by COVID-19.

Thank you for the opportunity to present on behalf of the Department of Defense and highlight some of the critical work we are doing to counter biological threats.

I also want to acknowledge DoD's sincere appreciation for the continued support that Congress lends our threat reduction mission.

As the Deputy Assistant Secretary of Defense for Countering Weapons of Mass Destruction, I have the privilege to work alongside by colleagues here today. Our strong partnership enables the broad U.S. Government effort to reduce WMD threats, including biological threats worldwide.

DoD's biothreat mission aligns with the objectives in the National Security and Defense Strategies, as well as Secretary Esper's priorities; namely, to increase the lethality of the U.S. military, build alliances, and improve DoD's efficiency. We also draw guidance from strategies such as the National Biodefense Strategy and the Global Health Security Strategy.

DoD's focus on protecting the health and readiness of U.S. forces, countering the destabilizing effects of outbreaks on U.S. interests, and ensuring that DoD remains focused on priority defense objectives to meet emergency needs during an outbreaks makes us a complementary tool in the U.S. threat reduction arsenal.

We work daily to ensure DoD is positioned to address the full range of WMD threats, to include the constantly changing biological threat landscape. This shifting dynamic includes naturally occurring outbreaks and accidental or deliberate release of biological agents; threats posed by State and non-State actors, international and domestic incidents, and concerns with existing and emerging technologies.

COVID-19's global reach and destabilizing influence has further altered the threat landscape, potentially inspiring nefarious actors to replicate COVID's impacts through a deliberate use of a biological agent. My team develops strategic guidance for CWMD activities, spanning the prevent, detect, and respond continuum to mitigate the impacts of such threats regardless of origin.

We work closely with other DoD stakeholders and coordinate through groups such as our Unity of Effort Council and the COVID-19 Task Force. DoD also works with key interagency and international partners as we develop priorities for countering biological threats. These partnerships allow us to leverage each other's capabilities and lessen the security burden on DoD. Pooling resources and working toward common objectives is vital to ensuring the greatest threat reduction impacts are achieved.

Since 2004, CTR's Biological Threat Reduction Program has provided equipment and training to over 30 countries to improve their ability to detect, diagnose, and report biological incidents. In the

current environment, we know that partner nations have leveraged previously provided CTR capabilities to bolster their abilities to detect and diagnose COVID-19.

To close, I want to thank the subcommittees again, and I look forward to your questions.

[The prepared statement of Mr. Lasseter follows:]

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STATEMENT OF

MR. DAVID LASSETER

DEPUTY ASSISTANT SECRETARY OF DEFENSE FOR
COUNTERING WEAPONS OF MASS DESTRUCTION POLICY
BEFORE THE HOUSE ARMED SERVICES COMMITTEE
AND HOUSE FOREIGN AFFAIRS COMMITTEE

OCTOBER 2, 2020

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INTRODUCTION

Chairman Langevin, Ranking Member Stefanik, Chairman Bera, Ranking Member Yoho, and members of the sub-committees, I am honored to testify today regarding the Department of Defense's (DoD) efforts to counter biological threats around the world, and how we work in coordination with the Department of State on this issue. My office focuses on developing and shaping policy for countering weapons of mass destruction (CWMD), including biological threats. We represent but one component of the overall DoD and U.S. interagency enterprise that contributes to this mission, some of whom are joining us today.

The DoD CWMD mission is to dissuade, deter, and, when necessary, defeat actors of concern who threaten or use weapons of mass destruction (WMD) against the United States and our interests. Our mission also includes preventing and responding to intentional or accidental use of biological agents as well as naturally occurring outbreaks of especially dangerous pathogens (EDPs). I work alongside the valued colleagues joining me today: Director, Defense Threat Reduction Agency, Vayl Oxford; Deputy Assistant Secretary of State for Nonproliferation Programs, Bureau of International Security and Nonproliferation, Phil Dolliff, and Acting Assistant Secretary of State for the Bureau of Oceans and International Environmental and Scientific Affairs Jonathan Moore, as well as other DoD, interagency, and international counterparts to advance this mission in the face of existing biological threats and a rapidly changing threat landscape that will inevitably yield new ones. I likewise want to recognize at the outset the Department's appreciation for the interest and support that Congress lends to the threat reduction mission. We recognize that we are stewards of U.S. treasure, including taxpayer dollars, U.S. military and civilian personnel, and capabilities—a responsibility that brings to bear our targeted, specific defense capabilities.

As we look to prevent and contain biological threats before they reach the United States, we also work consistently to ensure we can respond to crises and mitigate the effects of biological agent use at home and abroad—all while continuously improving internal DoD practices and processes, and interagency coordination. The DoD biological threat reduction mission is extensive and complex, requiring expertise from across the Department's components to ensure the effective development and implementation of guidance, analysis, capabilities, and activities. The DoD biological threat reduction enterprise continues to work collaboratively and with

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increasing efficiency to prevent the accidental or deliberate release of harmful pathogens, to detect and diagnose naturally occurring outbreaks of security concern quickly, and to respond to and contain outbreaks after they have occurred.

HOW DOD VIEWS BIOLOGICAL THREATS

The Department's biological threat reduction activities are guided by objectives set forth in U.S. national defense and security strategies, including but not limited to: the 2018 National Defense Strategy (NDS); the 2017 National Security Strategy (NSS); the 2018 National Strategy for Countering WMD Terrorism (NSCWMDT); and the 2018 National Biodefense Strategy (NBS). Each strategy acknowledges the threat posed by the deliberate weaponization or accidental misuse of biological threat agents, with the NSCWMDT comparing the potential scale of casualties caused by biological agents to that of nuclear weapons. Our objectives in confronting these threats are dissuading, preventing, deterring, and detecting State and non-State actors' attempts to pursue, acquire, or use biological weapons. Further, DoD's activities align with goals set forth in U.S. and international global health strategies, including the Global Health Security Strategy (GHSS) and the Global Health Security Agenda (GHSA). The GHSS and GHSA call for national and international efforts to strengthen global capacities to prevent, detect, and respond to infectious disease threats that could pose security concerns. Within its mission space, DoD addresses GHSS and GHSA objectives by strengthening biosafety, biosecurity, and biosurveillance capacities of partner nations worldwide.

The Department recognizes the significance of infectious disease threats and their potential impact on U.S. national security and defense interests. Our perspective and involvement in the biological threat reduction space is shaped by three core concerns: the health and readiness of U.S. forces and partner and ally militaries; the destabilizing effects of disease outbreaks on the United States and its interests; and the diversion of focus, resources, and capabilities from priority defense objectives to meet emergency needs during an outbreak.

Infectious disease outbreaks, whether naturally occurring or the result of accidental or deliberate release of a biological agent, do not respect borders. A biological threat abroad has the potential to spread quickly and pose a direct threat to the United States as well as to the health and readiness of U.S. forces and allies and partners abroad. An infectious disease outbreak has

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the potential to undermine DoD's operational readiness and ability to provide combat-credible military forces needed to deter conflict and to protect the security of the nation.

Similarly, disease outbreaks in partner nations can impair national security partnerships and, in the absence of adequate response measures, lead to long-term economic, political, and security destabilization. As partner nations are forced to devote more time and resources to combatting the spread of a disease within their borders, fewer resources are available to address external defense and security challenges. This is currently playing out with the COVID-19 pandemic, as defense budgets and exercises of partners and allies have either reduced or are likely to reduce as nations focus on combatting the virus domestically. This weakens America's network of allies and partners and their ability to confront common threats jointly, which in turn places a greater financial and operational burden on DoD to protect vital U.S. security interests abroad.

Finally, widespread disease outbreaks divert DoD's attention, resources, and capabilities from long-term strategic defense objectives in order to meet the immediate needs of the crisis. This has been made abundantly clear throughout the COVID-19 pandemic. DoD shifted resources, manpower, and operational focus to support domestic response. Our primary responsibility is to protect the American people by preserving the Department's readiness, lethality, and deterrent ability in an era of strategic competition, which, in the context of the pandemic, includes ensuring the availability of personnel, equipment, and supplies to be provided, as required, for the domestic COVID-19 response.

THREAT LANDSCAPE

In an always changing threat landscape, the Department is positioned to address a range of biological threats, regardless of how or where they arise. This includes naturally occurring infectious disease outbreaks and accidental or deliberate release of biological threat agents; threats posed by State and non-State actors; international and domestic outbreaks; and potential threats posed by existing and emerging dual-use technologies, which hold both promise and peril in their applications.

Impacts of COVID-19

The COVID-19 pandemic has further altered the threat landscape. This pandemic has demonstrated the wide-reaching and destabilizing impact that infectious disease outbreaks can

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have on the world, and may result in greater interest by non-State actors and terrorist organizations in developing biological weapons.

Additionally, the COVID-19 pandemic may erode norms around the development and deliberate usage of biological agents. Although international norms condemn these types of weapons, witnessing the impact of a pathogen of pandemic potential firsthand may embolden State or non-State actors to pursue and use biological agents that could potentially create a constant upheaval of everyday life.

There also may be an increased interest by terrorists and non-State actors in exploiting security vulnerabilities of laboratories housing especially dangerous pathogens. Facilities that lack appropriate biosecurity measures could allow actors who wish to do harm to acquire and/or divert pathogen samples. Adding to this problem are the increasing number of high containment facilities worldwide that house the most dangerous pathogens; some of those facilities lack suitable security measures to protect their pathogen stockpiles.

Impacts of Emerging Technologies

CWMD Policy is actively monitoring emerging technologies, including biotechnologies, to assess how they might impact our broader threat reduction efforts. We recognize that emerging biotechnologies, including gene editing and synthetic biology, may reduce the barrier to biological weapon development as they become more readily accessible by the general public. Other emerging technologies may pose additional biological threat reduction challenges. For example, 3D-printing may help facilitate the production of complex and previously costly and difficult-to-procure equipment that is necessary for producing such agents. Similarly, advances in drone technology may aid in targeted dissemination of biological threat agents. Furthermore, the inherently dual-use nature of biological capabilities makes countering proliferation of biological-related technologies, material, and expertise even more challenging. Finally, adversaries' pursuit of advanced biotechnologies could threaten U.S. technological superiority and economic competitiveness. CWMD Policy is incorporating the threats posed by these emerging technologies into our strategic guidance and assessments, and coordinating DoD's efforts through forums such as the CWMD Unity of Effort Council.

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HOW DOD IS ORGANIZED TO ADDRESS BIOLOGICAL THREATS

As mentioned previously, biological threat reduction-related stakeholders across DoD ensure that the Department is postured to address the full range of biological threats. Outlined below are several of the offices that contribute to this mission and their respective responsibilities:

Office of the Deputy Assistant Secretary of Defense (DASD) for Countering Weapons of Mass Destruction (CWMD)

My office has a unique role in focusing on the WMD linkage with various biological threats. Regarding the CWMD mission, we seek to ensure that the United States and its allies and partners are neither attacked nor coerced by actors with WMD or WMD-related capabilities. With respect to biological threats, we focus on activities to prevent, detect, and respond to high-consequence biological incidents, regardless of origin. We continually consider the tools we can bring to bear to mitigate threats from: naturally occurring infectious disease outbreaks; accidental or deliberate release of especially dangerous pathogens; biological weapon development, proliferation, and usage; and State and non-State actor interest in or deployment of biological threat agents. My office coordinates closely and regularly with our U.S. interagency colleagues and international partners, including Canada and the United Kingdom, to ensure that biological threat reduction efforts are deconflicted and leveraged to maximize U.S. investments while achieving the greatest threat reduction impact possible.

Cooperative Threat Reduction (CTR)

The primary mission of the DoD CTR Program, as it relates to biological threats, is to reduce the proliferation of biological weapons (BW), BW components, and BW-related technologies and expertise. It is also charged with facilitating the detection and reporting of diseases caused by especially dangerous pathogens, regardless of whether they are naturally occurring or the result of accidental or deliberate release. DoD CTR focuses exclusively on the “left of boom,” meaning to prevent and detect the full spectrum of WMD-related activities, whether nuclear, biological, or chemical WMD.

The DoD CTR Program, through the Biological Threat Reduction Program (BTRP), works with international partners to accomplish its threat reduction mission in three ways. First, we assist partner nations in developing sufficient capabilities to counter biological threats—most

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notably by working to improve biosafety and biosecurity (BS&S) and biosurveillance (BSV) capacities—with the goal of transitioning ownership and sustainment of these capabilities to the host nation. By doing so, CWMD Policy is reducing long-term reliance of partner nations on DoD assistance and is building a network of capable partners able to address emerging biological threats collectively. Prime examples of these can be seen in the cases of the Republic of Georgia and the Republic of Kazakhstan, both of which are leveraging laboratory capacities previously provided by the DoD CTR Program as part of their respective COVID-19 preparedness and response activities.

Second, we promote cross-border collaboration between partner nations to encourage regionalized, networked approaches toward biological security and actively encourage partner nations to assume regional leadership roles in this space. This includes data sharing regarding outbreaks of especially dangerous pathogens, promoting BS&S and BSV best practices within a region, fostering international scientific research engagements, and integrating national BS&S and BSV capabilities into regional efforts, thereby leveraging collective assets to advance shared threat reduction objectives. This can be seen through such engagements as our Biosurveillance Network of the Silk Road effort, which is currently promoting collaboration among health experts throughout Eastern Europe, the Middle East, and Central Asia to share outbreak data and best practices for safe and effective COVID-19 diagnosis and reporting.

Finally, CWMD Policy works with other donor nations to pool resources and share responsibilities for common biological threat reduction goals. We work through international forums like the G7 Global Partnership Against the Spread of Weapons and Materials of Mass Destruction and the Global Health Security Agenda to identify mutual threat reduction objectives, align and de-conflict activities, and pool resources. In this way, we are simultaneously reducing the financial burden on DoD while maximizing the impacts of our shared biological threat reduction investments.

In Fiscal Year 2019 (FY 2019), the Secretary of Defense carried out the first Defense-Wide Review, a line-by-line examination of defense agency and activity budgets. The Secretary recognized that, in an era of flat defense budgets, he must make tough prioritization choices, and accept that there would be resulting risks. The Secretary focused on freeing up time, money, and manpower to redirect towards NDS priorities, ultimately resulting in a Fiscal Year (FY) 2021

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savings of approximately \$5.7 billion across the Department. At the conclusion of the DoD CTR Program review, the Secretary directed an across-the-program budget reduction of 27 percent. CTR Policy is working with interagency partners and international partners, and within the Department to minimize risk in eliminating or transferring lower-priority activities to host-nation sustainment.

Transnational Threats (TNT)

The CWMD Policy office also works to prevent and deter adversaries from acquiring biological weapons or weaponizing dual-use biotechnologies. Like DoD CTR, the TNT effort focuses on “left of boom” activities. The team develops policies to address the potential risks of emerging dual-use biotechnologies and reduce the likelihood of adversaries developing or obtaining new biological weapons. TNT work also seeks to protect and promote the U.S. biotechnology sector, or “bioeconomy,” which is critical to maintaining our technological advantage, while also working to ensure that our advancements do not leave us more vulnerable.

Biodefense

Our team also focuses on incident response in order to prepare U.S. forces properly to operate in and through the consequences of an international chemical, biological, radiological, or nuclear crisis. The team works to engage international partners to develop their forces’ capacity to withstand and respond to CBRN incidents, as well as to advocate for DoD biodefense capabilities. The Office of the DASD for Homeland Defense Integration and Defense Support of Civil Authorities, within the Office of the Under Secretary of Defense (OUSD) for Policy, leads the Department in the implementation of the National Biodefense Strategy. My office supports that implementation with a focus on the capabilities to prevent bioincidents.

The three teams under CWMD Policy work across a range of DoD offices that focus on preventing, detecting, containing, and responding to biological threats worldwide, as summarized below:

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Office of the DASD for Homeland Defense Integration and Defense Support of Civil Authorities Policy (HDI&DSCA)

The DASD for Homeland Defense Integration and Defense Support of Civil Authorities Policy (HDI&DSCA), under the Assistant Secretary of Defense for Homeland Defense and Global Security (ASD(HD&GS)), is responsible for the development, coordination, and oversight of the integration and implementation of plans and policy for homeland defense, defense support of civil authorities, programs, and budgets within the DoD Components, and for homeland security-related interagency relationships. HDI&DSCA focuses on domestic efforts with regard to CWMD and CBRN defense. Partnerships for these missions include, but are not limited to, the Department of Justice, the Department of Homeland Security, and the Department of Health and Human Services.

With regard to the National Biodefense Strategy (NBS), the HDI&DSCA office is the coordinator for the Department and assists in the establishment of: risk mitigation and prevention of, preparation for, response to, and recovery from biological threats, including natural, accidental, or deliberate biological threats. Additionally, the HDI&DSCA office provides oversight for the Global Campaign Plan for Pandemic Influenza and Infectious Disease in support of the National Strategy and Implementation Plan for Pandemic Influenza.

Office of the DASD for Health Readiness Policy and Oversight (HRP&O)

Within the Office of the Under Secretary of Defense for Personnel and Readiness, the DASD for Health Readiness Policy and Oversight (HRP&O) serves as the principal advisor to the ASD for Health Affairs with responsibility for all medical readiness-related DoD policies, programs, and activities. Among HRP&O's many responsibilities are medical countermeasures, preventive medicine, medical preparedness, and the Office of Global Health Engagement (GHE). HRP&O oversees research and development of medical solutions to endemic diseases and operational health threats, and provides policy and oversight of medical countermeasure use and compliance under the Food and Drug Administration (FDA) rules and regulations. HRP&O regularly interfaces with DoD stakeholders and the FDA to ensure the DoD has the capabilities needed to protect the force, and for use of medical countermeasures through FDA pathways.

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DoD's GHE activities are primarily focused on force health protection. These activities require collaboration with partner nations to achieve mission success. This includes a global biosurveillance network, coordinated by the Global Emerging Infections Surveillance program; research to mitigate biological threats to DoD warfighters, which is conducted at Army and Navy Overseas Laboratories and elsewhere; and the Department of Defense HIV/AIDS Prevention Program, which works closely with the President's Emergency Plan for AIDS Relief (PEPFAR) program to assist militaries in addressing HIV in more than 50 nations. GHE activities help build health capabilities and capacities, increase interoperability with partner nations, and contribute to meeting the security cooperation objectives of our Combatant Commands. As has been true for requests for other DoD humanitarian assistance and foreign disaster response efforts, these capabilities are also being leveraged to support DoD's international response to COVID-19.

The Offices of the ASD(HD&GS) and ASD Health Affairs are the co-leads for DoD representation to the GHSA: a multisectoral, multilateral effort composed of 69 countries, international organizations, non-governmental organizations (NGOs), and private sector groups to improve global capacities to prevent, detect, and respond to infectious disease threats around the world. My office (under the ASD(HD&GS)) and HRP&O (under the ASD for Health Affairs) work on GHSA-related issues. Most notably, our offices are working to increase partner nation defense sector engagement in global health security, as many defense sectors worldwide have significant expertise, capabilities, relationships, and resources in health security that both complement and strengthen activities by their civilian counterparts

Through these activities and Foreign Medical Liaison Officers, HRP&O has longstanding relationships with several major partners, including, but not limited to, Australia, Canada, Germany, Ghana, Indonesia, Kenya, Nigeria, Peru, South Korea, Thailand, and the United Kingdom.

The Office of the DASD for Chemical and Biological Defense (CBD)

Within the Office of the USD for Acquisition and Sustainment, DASD CBD's mission is to anticipate future threats and deliver capabilities that enable the Joint Force to fight and win in chemical and biological (CB)-contested environments through a coordinated effort designed to neutralize CB threats.

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The Chemical and Biological Defense Program (CBDP) is a comprehensive research, development, and acquisition program providing capabilities to the Military Departments and Services to ensure the Joint Force is ready to continue operations when facing current, emerging, and future chemical and biological threats posed by NDS actors of concern. The CBDP addresses the evolving threat and changing domain space created by the convergence of multiple scientific disciplines and the rapid pace of technological advances, which present both a bright promise of new capabilities for the warfighter and a dark promise of novel and complex threats that will need to be addressed by the Department.

In addition, the CBDP focuses on medical countermeasures to combat biological threats. Currently, the CBDP is transitioning from conventional approaches for diagnostic, vaccine, and therapeutic development to an increased emphasis on dynamic response capabilities that can be more easily adapted to a rapidly changing threat environment.

The CBDP works with our closest allies and partners to leverage existing technologies and maximize investments as we collectively are constrained by the resources available to address problems in the CB WMD-space. For example, the CBDP supports programs in the Asia-Pacific region that bolster preparedness on the Korean Peninsula and works with regional partners, such as Singapore and Australia, to increase situational awareness tools for earlier detection and response to emerging biological threats at the regional level.

The Office of the USD for Research and Engineering (R&E)

The Under Secretary of Defense for R&E has eleven technology modernization priorities, each led by a Principal Director who is responsible for unifying and advancing the Department's investments and capabilities in their respective area. One of the modernization areas is biotechnology, which is classified as an engineering discipline that uses living systems to produce a wide range of technologies and products. Future advances in biotechnology will provide new operational capabilities to the Department of Defense across multiple domains spanning material and systems, military medicine, warfighter performance, and chemical-biological defense. Biotech modernization aims to accelerate the transition of science and technology towards prototyping and production at a rate faster than is currently possible, through government, academia, and industry partnerships with domestic and international scientific experts.

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COOPERATION WITH INTERAGENCY AND INTERNATIONAL PARTNERS

A critical component of the Department's strategy for countering biological threats is working in close coordination with interagency and international partners. Strong, durable alliances and partnerships are crucial for advancing long-term U.S. interests, maintaining favorable balances of power that deter aggression, and lessening the security burden placed on DoD. Pooling resources and working toward shared objectives for our common defense are paramount to ensuring U.S. security and defense interests are met.

More specific to my colleagues attending today, Phil Dolliff and I have biweekly conversations that span the CWMD spectrum. On threat reduction, my director and the CTR Policy staff coordinate on strategic matters on a weekly basis. It is Phil's team that shepherds DoD CTR Program determinations with the State Department offices that have equities—which span regional bureaus and other functional offices—to ensure there is a coordinated, informed review of DoD CTR programs. We take this process seriously, given the importance of a unified approach the U.S. Government must take in this mission space. Both of our teams work on identifying efficiencies in process and procedure, and we have made great strides.

With specific regard to biological threats, CTR Policy works closely with the State Department's Biosecurity Engagement Program (BEP) to coordinate, leverage, and deconflict activities. Although both offices share similar goals of improving BS&S and BSV capabilities in partner nations, we each bring unique relationships, experience, and expertise to bear, which complement each other's work and maximizes our threat reduction impacts.

Bottom line is that this thorough, deliberate, and informed review and coordination process ensures that our program is driving toward the right strategic outcomes that align with national security objectives.

CONCLUSION

Looking forward, the collective capabilities and expertise of biological threat reduction-related stakeholders across DoD will enable us to address the existing and emerging biological threats of 2020 and beyond. We will continue working to mitigate the likelihood of and impacts from outbreaks of especially dangerous pathogens worldwide—regardless of whether such outbreaks are naturally occurring or the result of deliberate or accidental release of a biological

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agent—while at the same time positioning the Department both to utilize emerging technologies and to counter the threats posed by them. Prioritization efforts led by DoD’s policy experts will further ensure that programs overseen by CWMD Policy are focused on areas where the Department has a core role, where the highest threat reduction value lies, and that align with our strategic political-military objectives. We will continue working closely with U.S. interagency and international partners to help reach peak return on our investments.

Thank you for your continued support of CWMD Policy and the Department’s efforts to prevent, detect, contain, and respond to biological threats worldwide.

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Mr. BERA. Thank you, Mr. Lasseter.
I will now recognize Mr. Oxford for his opening statement.

**STATEMENT OF VAYL OXFORD, DIRECTOR, DEFENSE THREAT
REDUCTION AGENCY, U.S. DEPARTMENT OF DEFENSE**

Mr. OXFORD. Chairman Langevin, Chairman Bera, Ranking Member Stefanik, Ranking Member Yoho, and Mr. Perry, standing in this morning, and distinguished members of the subcommittees, thank you for your continued support to DTRA.

I am proud to appear to you today with my colleagues from both DoD as well as the State Department to update you on our collective efforts to protect the U.S. national interests in a rapidly evolving globalized threat environment. It is an honor to represent the DTRA workforce, whose commitment to our mission and strong relationships with our partners here today makes our organization successful.

Today, we find ourselves in unprecedented times, as we respond to the global pandemic. As we reflect on the loss of over 200,000 of our fellow citizens, we must think about the future threat landscape where gene editing, DNA sequencing, and synthetic biology offer our adversaries the opportunity to capitalize on the observed lessons learned from our response. And they potentially could launch future attacks with little warning or attribution.

As we capture our lessons learned from the COVID-19 event, we have to accept the fact that others will also be learning and that the very nature of the biological threat landscape has changed forever. One of the lessons we have learned over the course of the last 6 months is that partner nations have benefited greatly by the training and equipping they receive through the DoD CTR Program, and specifically, BTRP.

BTRP facilitates the detection and reporting of diseases caused by dangerous pathogens, whether deliberately released or naturally occurring, including diseases such as COVID-19. BTRP works with over 30 foreign partners to reduce biological threats by enhancing their biosecurity, biosafety, and biosurveillance capabilities.

The ongoing COVID pandemic has demonstrated to the global community that health security is a critical part of national security. Countries need an effective biosurveillance system to detect, diagnose, and report outbreaks of dangerous pathogens. The U.S. relies on the biosurveillance systems of other nations to provide early warning of an outbreak before it reaches the homeland.

Some recent examples of BTRP success in responding to the pandemic:

In partnership with USAID, BTRP's efforts enabled local officials in Thailand to detect the first case of a novel coronavirus outside of China on 13 January 2020, only days after its initial discovery in Wuhan, China.

Within a month of a request from the U.S. Ambassador Fischer in Morocco, BTRP transferred a supply of PPE to the National Institute of Health and Hygiene in Rabat, Morocco. The equipment went directly to protect Morocco's frontline health care workers in the fight against COVID. Ambassador Fischer stated, "The equipment transfer is part of over 7 years of close cooperation between DTRA and the government of Morocco. This partnership focuses on

saving lives and mitigating threats to ensure the national security of both countries.” I will report, to date, Morocco has reported 126,000 with 2200 deaths.

In Georgia, BTRP-trained scientists and the BTRP-constructed Richard Lugar Center developed a diagnostic testing capability for COVID. This enabled Georgia to implement extensive testing to inform outbreak control. The center was lauded by the Georgian government as being integral in controlling the COVID outbreak. Within Georgia, they have reported 7100 cases with only 46 deaths.

BTRP continues to receive foreign partner requests for support related to COVID. As of September 18th, BTRP had fulfilled 40 requests from 18 countries, plus the African Union, for disease control.

In summary, by building a partner nation’s capacities and capabilities, it builds their sense of national pride and increases their willingness to work with the U.S. in other ways. By providing partners with better self-sustaining solutions, the U.S. demonstrates that we are the partner of choice rather than our strategic competitors. These partnerships act as force multipliers in the competition for influence and reinforce the strategic messaging that the U.S. has their nations’ interests in mind.

Thank you for your time, and I look forward to your questions.
[The prepared statement of Mr. Oxford follows:]

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HOUSE ARMED SERVICES COMMITTEE
AND HOUSE FOREIGN AFFAIRS COMMITTEE

STATEMENT OF

VAYL OXFORD
DIRECTOR
DEFENSE THREAT REDUCTION AGENCY

BEFORE THE
INTELLIGENCE AND EMERGING THREATS AND CAPABILITIES
SUBCOMMITTEE OF THE
HOUSE ARMED SERVICES COMMITTEE
AND
ASIA, THE PACIFIC, AND NONPROLIFERATION SUBCOMMITTEE
OF THE HOUSE COMMITTEE ON FOREIGN AFFAIRS

OCTOBER 2, 2020

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HOUSE ARMED SERVICES COMMITTEE
AND HOUSE FOREIGN AFFAIRS COMMITTEE

Chairman Langevin, Chairman Bera, Ranking Member Stefanik, Ranking Member Yoho, and distinguished members of the Subcommittees, thank you for your continued support of the Defense Threat Reduction Agency (DTRA). I am proud to appear today alongside Deputy Assistant Secretary of State Dolliff, Acting Assistant Secretary of State Moore, and Deputy Assistant Secretary of Defense Lasseter, to update you on our collective efforts to protect U.S. national security interests in a rapidly evolving, globalized threat environment. It is an honor to represent the DTRA workforce which maintains a strong focus on strategic deterrence, weapons of mass destruction (WMD), and improvised threats and their associated networks. Their commitment to our mission and strong relationships with our partners here today is what makes our organization so successful.

Today, I plan to focus on DTRA's cooperative efforts around the globe to reduce biological threats posed by Especially Dangerous Pathogens (EDPs) and the diseases they cause, whether man-made or naturally occurring. I will also touch on how these efforts have enabled our partners worldwide to mitigate the effects of COVID-19. I will speak less today about the threats and risks deriving from advancements in biotechnology, but would welcome the opportunity to discuss this topic during a closed session in the future.

Within the DoD Cooperative Threat Reduction Program (CTR), DTRA CTR serves as the implementer. The DoD CTR Program's Biological Threat Reduction Program (BTRP) activity line reduces the proliferation of biological weapons (BW), BW components, and BW-related technologies and expertise. The program facilitates detection and reporting of diseases caused by EDPs – whether deliberately released or naturally occurring – including diseases such as COVID-19. BTRP currently works cooperatively with over 30 foreign partners to reduce biological threats by enhancing partner country and regional biosecurity, biosafety, and biosurveillance capabilities. These capabilities counter the threat of theft or diversion of dangerous materials, counter the threat of accidental and intentional pathogen release, and establish an early detection and reporting capability for biological threats to detect and contain outbreaks at their source before they can become destabilizing regional events or pose a threat to U.S. forces, the U.S. homeland, or U.S. interests, allies, and partners abroad.

Since its inception in addressing WMD threats in the Former Soviet Union, Congress and the Department have expanded the CTR program's activities to address emerging WMD threats in

additional countries or regions using the CTR “Determination” process, which requires Secretary of Defense approval and Secretary of State concurrence to authorize new partner engagements. Current Determination authorities enable BTRP to conduct activities in South and South East Asia, Africa, the Middle East, and most recently, the Balkans, Baltics, and Black Sea region, as well as with the countries of the Former Soviet Union. Chapter 48 of Title 50, United States Code, authorizes the Secretary of Defense to carry out the CTR Program, including “facilitate[ing] the detection and reporting of highly pathogenic diseases or other diseases which are associated with or that could be used as an early warning mechanism for disease outbreaks that could affect the Armed Forces of the United States or allies of the United States, regardless of whether such diseases are caused by biological weapons.”

BTRP has countered biological threats since 1997, including building holistic biosurveillance systems. Through activities including equipping, training, constructing or renovating laboratories, and facilitating cooperative biological research projects, BTRP strengthens partnership and regional biosurveillance networks and reduces biological threats. By working with partners to secure pathogen collections; enhancing biosafety and biosecurity at vulnerable sites; and strengthening the capacity for public health and veterinary health systems to rapidly and accurately detect, diagnose, and report infectious disease outbreaks, the DoD CTR Program has prepared cooperative partner countries in Africa, Europe, the Middle East, and Asia to identify and defeat biological threats. These capabilities helped bolster partner nations’ abilities to quickly detect and diagnose the current COVID-19 outbreak, and BTRP-engaged countries are currently using previously-provided CTR training and capabilities to successfully deal with COVID-19.

The ongoing COVID-19 pandemic has demonstrated to the global community that health security is a critical component of national security. Every country needs an effective biological surveillance system to detect, diagnose and report outbreaks of dangerous pathogens. Further, because outbreaks do not respect international borders, the United States relies on the biosurveillance systems of all other nations to provide early warning to mitigate an outbreak before it reaches the homeland.

As a result of the DoD CTR Program and the assistance of our U.S. Government partner the U.S. Agency for International Development (USAID), local officials in Thailand detected the first

case of a novel coronavirus outside of China on January 13, 2020, after its initial discovery in Wuhan, China. Thai officials announced that a Chinese patient had been positively identified as a carrier of the novel coronavirus thanks to the biosurveillance program at Chulalongkorn University. The advanced capabilities of Thailand's biosurveillance program are the direct result of support from BTRP, which enabled Thailand to detect COVID-19 on their own by equipping Chulalongkorn University for emerging infectious disease (EID) detection and surveillance. The current COVID-19 crisis has demonstrated that BTRP's partnerships and associated capabilities have accelerated the ability to mitigate the threat and, in many cases, reduced its severity.

The DoD CTR Program has leveraged BTRP partnerships to address partner nations' critical Personal Protective Equipment (PPE) shortages and deliver necessary training and expertise as part of the global effort against COVID-19. Within two weeks of request, BTRP transferred a supply of PPE to the National Institute of Health and Hygiene in Rabat, Morocco. The equipment went directly to safeguarding Morocco's frontline healthcare workers in the fight against COVID-19. U.S. Ambassador to Morocco, David Fischer, said of BTRP's efforts "This equipment transfer is part of over seven years of close cooperation between DTRA and the Government of Morocco. This partnership's focus is on saving lives and mitigating threats to ensure the National Security for both of our countries." BTRP's partnership with Morocco is a prime example of how the program enables a partner nation to react to and combat a biological threat like COVID-19, core aspects of the DoD CTR Program. And in the case of Morocco, it bolstered national pride.

DTRA's broader efforts in the Philippines provide an example of DTRA CWMD partner building programs (beyond the DoD CTR Program) working in harmony to develop a high level of CWMD expertise with one of the United States' most significant regional partners. In FY19 we implemented a multi-year plan of engagement to develop host-nation capability to establish and operate an Emergency Operation Center during a CBRN incident and sustain a WMD response. These efforts contributed to this partner nation becoming a CWMD regional leader in an area of great geopolitical importance, and helped reinforce the United States as the partner of choice for engagements in other domains, including maritime proliferation prevention.

The DoD CTR Program's capacity building with partners in Europe is another example of making key, enduring contributions that have saved lives during the global pandemic in an area

of great geopolitical importance. In Georgia, BTRP-trained scientists in the National Center for Disease Control and Public Health at the BTRP-constructed Richard Lugar Center developed a diagnostic testing capability for COVID-19. This diagnostic testing capability enabled Georgia to implement extensive diagnostic testing to inform outbreak control. The Richard Lugar Center was lauded by the Georgian government as being integral in controlling the COVID-19 outbreak, being able to efficiently run tests and trace the origin of the virus in country. In Ukraine, BTRP-supported subject matter experts and trained members of the Public Health Center on the best use of the BTRP-provided Electronic Integrated Disease Surveillance System during the pandemic. An official Ministry of Health mandate to subordinate organizations to utilize the disease surveillance system validates BTRP's cooperative biosurveillance efforts to improve Ukraine's ability to monitor, track, and report emerging biological threats.

While the full impact of COVID-19 on the world won't be known for years, we are already addressing emerging threats within BTRP's mission space by helping prevent the spread of pathogens like anthrax, Ebola, brucellosis, and others. For example, BTRP is investing in countries to build their capacity to address critical biological threats such as the family of Henipaviruses, which have the potential to be equally – if not more devastating – than COVID-19. The COVID-19 pandemic illustrates to adversaries how disruptive disease outbreaks can be. Countries are scaling up crisis-response capabilities without having the time to properly address vulnerabilities and exploitable security gaps. Furthermore, COVID-19 impacts are driving major disruptions in countries with fragile biosurveillance systems and weak support networks. The consequences from COVID-19 will significantly influence global health security requirements, planning, funding, resourcing, and partnerships for the foreseeable future.

While COVID-19 needs are pressing right now, we also must not lose sight of the fact that the DoD CTR Program continues to accomplish a broader mission—to enable detection of emerging threats and to prevent outbreaks where possible. Today's threat environment includes state actors, such as China, Russia, North Korea, and Iran, as well as violent extremist organizations who are interested in acquiring, developing, enhancing, proliferating, and using WMD. These efforts are facilitated through readily-available knowledge, technologies, materials, and global trafficking networks. The acquisition and use of WMD capabilities by state and non-state actors

around the world increases the threats to U.S. forces, the homeland, and our allies – and these threat actors are watching and learning the impact of a disease outbreak.

The DoD CTR Program is uniquely able to leverage its standing as a consistent annual U.S. contributor to global health security, including implementing the goals of the U.S. Global Health Security Strategy (GHSS), and working closely with our interagency colleagues to demonstrate a whole of government commitment to the Global Health Security Agenda (GHSA), and more. BTRP establishes trusted partnerships with key nations and organizations that span the military-civilian health security workforce, and has experience building sustainable biosurveillance capabilities at national, regional, and global levels. The DoD CTR Program's dedicated 3-year appropriation focuses on preventing and containing high consequence biological events by ensuring that U.S. taxpayer investment is not wasted due to an inadequate planning and engagement horizon, and its robust acquisition and program management workforce quickly issues and administers international contracts and grants to address those events.

As the DoD CTR Program implementer, DTRA continues to seek creative and innovative ways to carry out its mission within the strategic priorities and budget established by the Department of Defense and remains poised to address any urgent threats that emerge. As the world works through COVID-19 impacts, the DoD CTR Program will continue to address gaps in early warning systems for biological threats, ensure partner countries can use the capabilities BTRP has provided, and coordinate with others in the U.S. interagency and international community. Through the DoD CTR Program, the Department will continue to address WMD proliferation threats and contain outbreaks of dangerous pathogens before they threaten the U.S. or its interests, allies, and partners abroad.

On a daily basis, BTRP continues to receive foreign partner requests for preparedness and detection support related to the COVID-19 outbreak. This includes providing biosafety, biosecurity and biosurveillance support to aid in the detection, diagnosis and reporting of COVID-19 in 30 countries. As of September 18, 2020, BTRP has fulfilled 40 requests from 18 countries, plus the African Union Center for Disease Control. Support provided includes diagnostic testing reagents and supplies, decontamination devices, virtual trainings, and disinfectant solutions totaling over of \$6M in support to partner nations.

An added benefit of the DoD CTR Program is how it bolsters U.S. partnerships in parts of the world where revisionist powers are eager to exert malign influence at the expense of U.S. objectives. As the Morocco, Georgia, and Ukraine success stories show, the DoD CTR Program activities build strong relationships in addition to achieving threat reduction outcomes. The DoD CTR Program is one of many tools the Department has to advance strategic political-military objectives and contribute to establishing the U.S. as the partner of choice, rather than our strategic competitors.

In addition to the DoD CTR work we are primarily here to talk about today, I want to emphasize that my BTRP team's threat reduction activities complement DTRA's CWMD Building Partnership Capacity (BPC) programs, which, in FY19, completed 274 engagements in 24 countries across six Combatant Command regions, providing enhanced CWMD understanding and capabilities to approximately 4,100 participants. For FY20, those same programs anticipate completing 290 events in 27 countries with more than 4,300 participants. While there have been challenges during the global pandemic, the programs have been largely successful in carrying out planned events. We have worked to ensure our BPC activities align to the National Defense Strategy, enabling DTRA to work with partners to build CWMD capacity. By building a partner nation's capabilities and capacities, it builds their sense of national pride, which increases their willingness to partner with the U.S. in other ways. By providing partners with better, self-sustaining solutions, the U.S. demonstrates that we are the "partner of choice" rather than strategic competitors. These strategic partnerships can act as force multipliers in the competition for influence and reinforce the strategic messaging that the U.S. has these nation's best interests in mind. This support plays a fundamental role in bolstering U.S. partnerships in parts of the world where revisionist powers are eager to exert malign influence through regional partnerships at the expense of the U.S.

Conclusion

Building out our friendly networks and increasing U.S. influence in partner nations strategically degrades the networks and influence of our competitors. One of the most effective ways to increase the depth and breadth of our friendly networks is by increasing our partners' abilities and strengthening the bonds with our partners through the nation's suite of BPC, security cooperation, and threat reduction programs. DTRA remains an agile and responsive Defense

Agency and Combat Support Agency that has evolved as the threats our nation faces have evolved. DTRA continues to prioritize support to Combatant Commanders, expanded relationships with interagency and international partners, innovative capabilities to drive warfighting effects, and an empowered Agency leadership and staff to achieve these outcomes. Our successes reduce threats against our nation and the Joint Force and reduce risk to the warfighter. From threat reduction biosurveillance activities that detect deadly outbreaks such as Ebola during the crisis in West Africa and the early detection of the coronavirus in Thailand, to BPC activities that enable Combatant Commanders to compete with near-peer adversaries, DTRA stands alongside our partners here today safeguarding our national security.

Mr. BERA. Thank you, Mr. Oxford.
I will now recognize Mr. Moore for his opening statement.

STATEMENT OF JONATHAN MOORE, ACTING ASSISTANT SECRETARY, BUREAU OF OCEANS AND INTERNATIONAL ENVIRONMENTAL AND SCIENTIFIC AFFAIRS, U.S. DEPARTMENT OF STATE

Mr. MOORE. Good morning, Chairman Bera, Chairman Langevin, Ranking Member Stefanik, and other esteemed Members of the House.

It is an honor to be here with you today together with distinguished colleagues from the State Department and the Department of Defense, as well as DTRA. I look forward to discussing how our Bureau, the Bureau of Oceans and International Environmental and Scientific Affairs, plays a role in this process. Our normal portfolio ranges from the depths of the oceans to the vastness of space. We also host the State Department's Office of International——

Mr. BERA. Mr. Moore, could I have you have the microphone a little closer to you?

Mr. MOORE. Sorry. Thank you.

We also host the State Department's Office of International Health and Biodefense, and that is the capacity in which I am here today.

I will focus my remarks on our efforts to prevent, detect, and respond to infectious disease outbreaks. COVID-19, which, as we see, has had an impact even on the President and the First Lady, and millions of Americans, highlights the importance of U.S. leadership to advance global health security and pandemic preparedness. This is crucial to stopping outbreaks at their source and protecting U.S. health and safety, promoting economic prosperity, and defending national security interests.

Our team at OES is working through and on COVID-19, together with interagency partners, advancing U.S. Government priorities through diplomacy. Beyond COVID-19, OES combats a range of other public health threats, including Ebola, influenza, Dengue, polio, and antimicrobial resistance.

The COVID-19 pandemic is a global challenge, and the Department of State remains committed to working closely with our partners as part of a collective global response. We are using all of our means to slow and stop the pandemic. U.S. health diplomacy has two primary areas of effort: promoting transparent information-sharing and disease surveillance, and encouraging a multisectoral approach to building global health security capacity, including other nations, nongovernmental organizations, international organizations, and the private sector.

We deeply appreciate Congress' appropriations of over 1.6 billion U.S. dollars in COVID-19 supplemental funding to the State Department and to the U.S. Agency for International Development. We have used these funds to provide a broad range of assistance specifically aimed at helping governments, international organizations, and nongovernmental organizations fight the pandemic.

The assistance is saving lives by strengthening public health education, improving the quality and cleanliness of health care facilities, and increasing laboratory disease surveillance and rapid re-

sponse capacity in more than 120 countries, as well as providing humanitarian and economic support to mitigate impacts of the pandemic.

Additionally, the United States has invested more than \$10 billion to bring safe and effective vaccines to the global market faster. OES helps develop State Department messaging, including global public health encountering malign influence.

As the first to know about the coronavirus, the Chinese Communist Party had a special responsibility to inform the rest of the world about this threat. Instead, they withheld information and censored medical professionals, scientists, and journalists. The CCP has since used the pandemic to further its geopolitical agenda by highlighting its donations of masks and other supplies to reshape the narrative and distract from its role in this crisis. Both Russia and the CCP have made grandiose and irresponsible claims about the creation of vaccines, raising serious questions about quality and efficacy that we are addressing through active public diplomacy.

An ounce of prevention is worth a pound of cure is a proverb that is as familiar as it is true. If we prioritize health security investments, we can contain outbreaks before they become pandemics and mitigate and prevent second-and third-order impacts.

OES plays a key role in pandemic prevention, including through support for the Global Health Security Agenda. GHSA, which is still a work-in-progress, is a partnership of nearly 70 nations, international organizations, and nongovernmental stakeholders that uses a whole-of-government, multisectoral approach to address outbreaks.

OES annually coordinates U.S. expert implementing agencies to provide carefully targeted programming in priority countries, to make global health security improvements along specific metrics. Its approach to combating outbreaks is reflected in the United States 2017 National Security Strategy, 2018 National Biodefense Strategy, and the 2019 Global Health Security Strategy.

OES leadership has been fully engaged in coordinating inter-agency investments, helping 19 U.S. partner countries prevent, detect, and respond to a range of infectious disease threats at their source. These are just a few examples of OES's wide-ranging engagement on infectious disease risks which are crucial to countering biological threats.

We greatly appreciate your interest and look forward to your questions. Thank you very much.

[The prepared statement of Mr. Moore follows:]

**Statement of
Jonathan M. Moore, Acting Assistant Secretary
Bureau of Oceans and International Environmental and
Scientific Affairs, U.S. Department of State,
Before the House Committee on Foreign Affairs Subcommittee on
Asia, the Pacific, and Nonproliferation, and the House Committee
on Armed Services Subcommittee on Intelligence and Emerging
Threats and Capabilities**

October 2, 2020

Introduction

Good morning Chairmen Bera and Langevin, Ranking Members Yoho and Stefanik, and other esteemed Members. It is an honor to be here today with my distinguished colleagues from the Department of State and the Department of Defense; I look forward to discussing how the Bureau of Oceans and International Environmental and Scientific Affairs addresses biological threats. I intend to focus my remarks on our efforts to prevent, detect, and respond to infectious disease outbreaks.

The COVID-19 pandemic highlights the importance of U.S. leadership to advance global health security and pandemic preparedness. This is crucial to stopping outbreaks at their source and protecting U.S. health and safety, promoting economic prosperity, and defending national security interests. Our team in OES is working through the current pandemic, like all of us, while working with our interagency partners to advance U.S. government priorities through diplomacy. Beyond COVID-19, OES combats a range of other public health threats, including Ebola, influenza, dengue, polio, and antimicrobial resistance.

Pandemic Response

The COVID-19 pandemic is a global challenge, and the Department of State remains committed to working closely with our partners as part of

a collective global response. We are using all of our means to slow and stop the pandemic. U.S. health diplomacy has three primary areas of efforts: promoting transparent information sharing and disease surveillance; and encouraging a multisectoral approach to building global health security capacity that includes other nations, nongovernmental organizations, international organizations, and the private sector.

We appreciate Congress' appropriation of over \$1.6 billion in COVID-19 supplemental funding to the State Department and USAID. We have used these funds to provide a broad range of assistance specifically aimed at helping governments, international organizations and nongovernmental organizations fight the pandemic. The assistance is saving lives by strengthening public health education; improving the quality and cleanliness of healthcare facilities; and increasing laboratory, disease-surveillance, and rapid-response capacity in more than 120 countries; as well as providing humanitarian and economic support to mitigate impacts of the pandemic.

The United States has invested more than \$10 billion to bring safe and effective vaccines to the global market faster.

OES helps develop State Department messaging, including global public health, on countering malign influence. As the first to know about the coronavirus, the Chinese Communist Party (CCP) had a special responsibility to inform the rest of the world about this threat. Instead, they withheld information and censored medical professionals, scientists, and journalists. The CCP has since used the pandemic to further its geopolitical agenda by highlighting its donations of masks and other supplies to reshape the narrative and distract from its role in this crisis. Both Russia and the CCP have made grandiose and irresponsible claims about the creation of vaccines, raising serious questions about quality and efficacy, that we are addressing through active public diplomacy.

Preparing for the Next Pandemic – Global Health Security

“An ounce of prevention is worth a pound of cure” is a proverb that is as familiar as it is true. If we prioritize health security investments, we can contain outbreaks before they become pandemics and mitigate and prevent second and third order impacts. OES plays a key role in pandemic prevention, with one of our most prominent contributions being our support for the Global Health Security Agenda. The GHSA is a partnership of nearly 70 nations, international organizations, and non-governmental stakeholders that uses a whole-of-government, multisectoral approach to address outbreaks. OES annually coordinates U.S. expert implementing agencies to provide carefully targeted programming in priority countries to make global health security improvements along specific metrics. It’s approach to combatting outbreaks is reflected in the United States 2017 National Security Strategy, 2018 National Biodefense Strategy (NBS), and the 2019 Global Health Security Strategy (GHSS). OES leadership has been fully engaged in coordinating interagency GHSA investments helping 19 U.S. partner countries prevent, detect, and respond to a range of infectious disease threats at their source. In many cases, these GHSA investments have served as a strong foundation for partner countries to better prepare for and respond to COVID-19. Just this week, the White House released our most recent GHSA annual progress report that highlights the continued commitment of this impactful initiative.

Conclusion

These are just a few examples of OES’s wide-ranging engagement on infectious disease risks, which are crucial to countering biological threats. We greatly appreciate your support and interest. I thank you again for the opportunity to appear before you. I would be pleased to answer any questions you may have.

Mr. BERA. Thank you, Mr. Moore.
Let me now recognize Mr. Dolliff for his opening statement.

STATEMENT OF PHILLIP DOLLIFF, DEPUTY ASSISTANT SECRETARY FOR NONPROLIFERATION PROGRAMS, BUREAU OF INTERNATIONAL SECURITY AND NONPROLIFERATION, U.S. DEPARTMENT OF STATE

Mr. DOLLIFF. Good morning, Chairman Bera, Chairman Langevin, Ranking Members, and Honorable Representatives.

We appreciate the leadership you have shown on these important issues. Thank you for inviting me here today to share how the Department of State's Bureau of International Security and Nonproliferation, or ISN, works to address some of the most urgent and challenging biological threats to U.S. national security.

I am honored to appear before you, alongside my colleague from the Oceans and International Environmental and Scientific Affairs Bureau, and by my colleagues from the Department of Defense.

Through diplomatic efforts and foreign assistance programs, the International Security and Nonproliferation Bureau works to prevent rogue States, terrorists, and other malign actors from obtaining and using weapons of mass destruction. The International Security and Nonproliferation Bureau has been working hard for nearly 20 years to address challenges posed by the full spectrum of these threats, whether they are deliberately spread, accidentally released, or naturally occurring.

The COVID-19 pandemic is a grim reminder of how much damage a single pathogen can cause to U.S. national and international security. Through diplomacy, our International Security and Nonproliferation Bureau strengthens multilateral frameworks, including the Biological Weapons Convention and the Australia Group. And I note the chairman made remarks on this very issue.

This year, as the President of the G7, we are leading the international community in making significant progress on biological issues, including issuing G7 statements on the international COVID-19 pandemic and response. Similarly, in the global partnership, we have led efforts to launch a dedicated biosecurity capacity-building initiative.

For decades, ISN has invested significant resources into combating the full range of WMD and related delivery system threats, including over \$450 million over the past 15 years toward mitigating biological threats. We have a long and rich history of biosecurity capacity-building where we have trained thousands of foreign partners on biosecurity in over 50 countries. These WMD threat reduction investments long preceded the pandemic. Yet, they are contributing to slowing its spread.

We recognized early on the threat that the pandemic posed to our international security, and we began to quickly incorporate COVID-19 topics in our trainings, leveraging remote and distance learning platforms to deliver critically needed help in a timely manner.

We are also in the process of programming an additional \$18 million via our Nonproliferation and Disarmament Fund toward controlling this pandemic and preventing future catastrophic biological events, as well as adding additional experts to our efforts and ex-

panding the offices we have working on these issues. Representative Perry noted moments ago that there are limitations to our authorities, and I will note that we did propose broader authority to address these limitations.

Of course, we are not alone and we are deeply grateful for the decades of very close partnership we have enjoyed with our Department of Defense colleagues to coordinate our mutually reinforcing efforts.

In looking to the future, we are also working hard to keep pace with the rapidly evolving changes in biotechnology. And I note that several of the members indicated concern about this very issue. Let me assure you the full range of U.S. national security departments and agencies are focusing on and analyzing these efforts.

Our International Security and Nonproliferation Bureau is using our diplomatic and capacity-building tools to prevent the application of dual-use technologies to do harm, such as the development of biological weapons. For example, Chairman Bera noted moments ago the importance of standards and norms to address this issue. And we are, indeed, working in this area and have had multilateral dialogs on this very issue.

In conclusion, we are very proud of the work we do to combat infectious disease threats using our diplomatic and foreign assistance tools in support of U.S. national security. We deeply appreciate the support of the Congress to provide us with the necessary resources to carry out our threat reduction mission, and we recognize that our work is far from over.

Thank you, Chairman Bera, Chairman Langevin, members of the committee. I look forward to your questions.

[The prepared statement of Mr. Dolliff follows:]

**The State Department's Bureau of International Security and
Nonproliferation: Countering Biological Threats and the Evolving Biological
Threat Landscape through a Nonproliferation Lens**

Testimony by

Phillip R. Dolliff

Deputy Assistant Secretary of State for Nonproliferation Programs

House Foreign Affairs Committee
Subcommittee on Asia, the Pacific, and Nonproliferation

House Armed Services Committee
Subcommittee on Intelligence and Emerging Threats and Capabilities

Hearing of 2nd October 2020

Good morning, Chairman Bera, Ranking Member Yoho, Chairman Langevin, Ranking Member Stefanik, and Representatives. Thank you for giving me the opportunity to describe how programs in my bureau, the Department of State's Bureau of International Security and Nonproliferation (ISN), work to address some of the most urgent and challenging biological threats to U.S. national security. I would also like to applaud Chairman Bera for his leadership regarding the importance of biosecurity and related health security issues, both of which are important to ISN.

As you heard from Assistant Secretary Ford last fall, ISN works to prevent rogue states, terrorists, and other malign actors from obtaining and using the worst possible weapons, including weapons of mass destruction (WMD) that include chemical, biological, radiological, and nuclear weapons and their means of delivery, against the United States and the American people.

In support of this national security mission, ISN wields the tools of diplomacy and foreign assistance to prevent the unchecked proliferation of WMD, delivery systems, and advanced conventional weapons capabilities, as well as to help roll back such proliferation where it has already occurred. In doing so, ISN advances key U.S. national security priorities – including those emphasized in the [2017 National Security Strategy](#), the [2018 National Biodefense Strategy](#), and the [2019 Global Health Security Strategy](#), among other State Department and U.S. government nonproliferation objectives.

This morning, in response to the requests from your committees, I am honored to provide an overview of how ISN leverages its leadership in international nonproliferation regimes and its capacity-building efforts to help protect the nation from current and emerging biological threats. Of course, my bureau is not alone within the State Department in dealing with a range of biological threats to the American people, and I am glad to be joined by my colleague from our Bureau of Oceans and International Environmental and Scientific Affairs (OES) who can speak

to our Department's broader global health security efforts. I am also pleased to appear before you alongside my colleagues from the Department of Defense who have been valuable and critical partners to my bureau for many years.

For today's hearing, I will describe the diplomatic efforts ISN is leading to urge renewed attention to combating biological threats, describe some of the specific capacity-building work my bureau provides through foreign assistance programs, and highlight our close cooperation with U.S. interagency partners to achieve our shared biological threat reduction goals through mutually reinforcing efforts. In the interest of time, I will limit my oral remarks but respectfully request that the full version of my prepared comments be entered into the record.

I. *Global Biological Threats Call for Global Solutions - Advancing Biological Nonproliferation Priorities through Multilateral Frameworks*

The COVID-19 pandemic is an undeniable tragedy and has brought to stark light just how much damage a single pathogen can cause, not just to the lives of people here at home and around the world, but also to the international security environment and the global economy. Although this pandemic is the most significant biological crisis we currently face, ISN has been working hard for nearly 20 years to address challenges posed by the full spectrum of biological threats, whether they are deliberately spread, accidentally released, or naturally occurring. We also believe that the COVID-19 pandemic has sparked an overdue re-evaluation of the dangers that infectious disease outbreaks pose to U.S. national security.

Biological threats – including emerging infectious disease threats – are among the most serious threats facing the United States and the international community. Countering such threats is an imperative element of the State Department's national security mission as biological threats can originate in one country and spread to others with potentially far-reaching international consequences. There are also important linkages between natural and man-made events. For example, we may not know at the outset which type of event is underway, and indeed for some cases we may never know. Naturally-occurring or accidental infectious disease outbreaks that arise by happenstance or in the absence of robust biosafety and biosecurity protocols can also create disquieting opportunities for malign actors. The recognition that a robust national defense against biological threats must integrate defense against both naturally occurring disease and biological weapons is embodied in the *2018 National Biodefense Strategy*, which is comprehensive in its whole-of-government approach. This *Strategy* integrates defense against biological threats targeting humans, animals, and plants, whether natural or man-made, and addresses the problem at the international and domestic levels.

While my bureau's focus within this broad biological threat landscape is on preventing the intentional use of biological agents as a weapon, much of our work has the added benefit of addressing infectious disease outbreaks caused naturally or accidentally. The State Department is also focused on preventing, detecting, and responding to naturally occurring outbreaks, and demonstrates leadership in this area within several international and multilateral initiatives, including the Global Health Security Agenda (GHSA).

I would like to highlight the importance of GHSA for my own bureau's biosecurity work. This global initiative is one of few that offers the opportunity to bring together security and health sectors, which often work separately, under one shared vision of a world safe and secure from infectious disease threats. We are grateful for the leadership OES has long demonstrated in GHSA, and I am proud of ISN's contributions to advancing the GHSA's biosecurity goals since its inception through our capacity-building programs and through our close coordination with U.S. interagency partners such as the Department of Defense, the U.S. Agency for International Development (USAID), the Department of Health and Human Services, and other partners in the global health security community.

Now I will address the key ways in which ISN has taken a leading diplomatic role to set the foundation to address emerging biological security threats. ISN works to help build, maintain, and strengthen the various multilateral frameworks and international institutions upon which the global nonproliferation regime depends. One example is our work within the Biological Weapons Convention (BWC). The BWC not only prohibits States Party from developing or possessing biological weapons, but also requires countries to implement the Convention by adopting national measures to prevent biological weapons from falling into the hands of non-state actors. The Convention is a key component of a broader international system that includes the Australia Group and UN Security Council Resolution 1540, and is designed to prevent the development, acquisition, and use of biological weapons and other WMD. These regimes, along with national measures that are coordinated internationally, such as sanctions and interdiction, are a critical foundation of our efforts to keep biological weapons threats in check.

But our work does not stop there. We use every international diplomatic tool at our disposal – including the G7-led Global Partnership Against the Spread of Weapons and Materials of Mass Destruction (GP) – to advance our biosecurity and other international security priorities. This year, under our government's Presidency of the G7 and GP, ISN is challenging GP partners to proactively tackle urgent and emerging biological threats. Our efforts are paying real dividends – the G7 Foreign Ministers dialogue has made COVID-19 and combatting biological threats the central theme of its action-oriented efforts. We do not rely on words alone to effect change, and through our leadership of the GP's Biosecurity Sub-Working Group, we have convinced our allies and international partners to launch a dedicated biosecurity initiative that will seek to leverage each member's capabilities and valuable lessons learned from years of biological threat reduction work to help solve enduring challenges. In this way, we are harnessing resurgent international enthusiasm to counter biological threats to focus attention and resources on sustainably strengthening the most serious biosecurity and biosafety weaknesses exposed by this pandemic in a coordinated and collaborative manner. After all, no one country can tackle these challenges on its own and global problems require global solutions.

II. *Partnerships to Achieve Biosecurity Objectives – Leveraging Foreign Assistance to Build Partner Capacity through Interagency and International Cooperation*

In addition to our diplomatic work through nonproliferation regimes and other multilateral frameworks, ISN has a long and rich history of programming against biological threats through capacity-building in partner countries. Since the mid-2000s, combatting biological threats around the world has been one of the main focus areas of our WMD threat reduction programs. We started primarily in Former Soviet Union states and over the years have expanded our work to engage partners in over 50 countries. For us biological threat reduction activities include enhancing physical security measures to protect dangerous pathogen collections from acquisition by nefarious actors, providing technical trainings on how to identify the pathogen causing an outbreak and what protective measures people should adopt to prevent them from contracting the disease, developing comprehensive standard operating procedures to make scientific institutions safe and secure for the people who work there and their communities, among other activities. In addition, we address the risk of cross-border transfers of dual-use materials and equipment that may contribute to development of biological weapons by helping partners build regulatory frameworks, institutional capabilities, and appropriate enforcement measures, including the capacity to detect, interdict, and prosecute illicit trade in sensitive biological agents and equipment.

In doing this work, we have built longstanding relationships with foreign partners in some of the most austere and challenging places in the world, and have trained thousands of partners in a whole-of-government and whole-of-society approach on biosecurity, biosafety, biosurveillance, and border security. These WMD threat reduction investments long preceded the pandemic yet are contributing in important ways to slowing its spread. Many of our partners have told us over the past several months how they are using the biosecurity, biosafety, and border security training and assistance we have provided to help mitigate COVID-19 in their countries.

These success stories were a reminder that although ISN's national security mission does not cover the entire array of infectious disease threats that fall under the purview of global health programs, we do have an important role to play in countering those emerging biological threats that pose a significant concern to the international security environment. Therefore, even as the coronavirus lockdowns were starting this spring, we did not wait for a top down directive to start programming against the growing pandemic threat. In a matter of weeks, we found ways to ensure that ongoing projects also incorporated COVID-19-related topics in our bureau's Cooperative Threat Reduction biosecurity, Nonproliferation and Disarmament Fund, and export control and border security activities. We also did not allow massive disruptions to international travel or the rapid dispersal of our staff to a telework posture impede our efforts. Since mid-March, our bureau has continued to conduct remote capacity-building events across a range of nonproliferation issues with our partner countries.

Separate from the COVID-19-related global health and humanitarian efforts of the State Department and USAID, we in ISN have also exercised special authorities to

hire experts to staff our offices working on biological security issues, secured nearly \$1.86 million from our foreign assistance colleagues to address pandemic related nonproliferation objectives in Yemen, and accelerated ongoing efforts to reorganize our bureau to increase the level of attention and effort dedicated to biological threats. As we continue to strive to implement priorities with actions, we are presently in the process of programming an additional \$18 million toward controlling not just this pandemic, but preventing future catastrophic biological events via a Nonproliferation and Disarmament Fund. This proposal has already been sent to the Congress for concurrence. We are deeply appreciative of the many years of robust support the Congress has given to ISN's threat reduction programs, and we eagerly await your approval of this urgently needed biosecurity and border security work.

Of course, we in ISN and the State Department are not alone in tackling the pandemic or other biological threats in a foreign assistance capacity. Indeed, we constantly coordinate with counterparts in the U.S. government, both on our own and through National Security Council-chaired interagency processes, to implement our biological threat reduction work in an effective and complementary manner. We are thankful to our colleagues in the U.S. interagency and international community for their partnership and parallel efforts.

In particular, we are grateful for the decades-long partnership our bureau has enjoyed with the Department of Defense, especially its Cooperative Threat Reduction (DoD CTR) Program and other WMD threat reduction programs implemented by the Defense Threat Reduction Agency. At every step, from project concept to partner graduation, and at every level, from Under Secretaries to action officers, we communicate and collaborate with each other to ensure that U.S. taxpayer dollars are committed to countering the most urgent threats to U.S. national security and that we amplify and augment each other's efforts, rather than duplicate or complicate them.

We also strive to extend the reach of the DoD CTR Program's efforts through our diplomatic missions and through expansion of their relevant authorities, as OSD Policy deems necessary, to address emergent and urgent WMD threats. In this latter regard, I would like to thank Chairman Bera for his recognition of how streamlining the determination process by which the DoD CTR Program gains new geographic or functional authorities is key to ensuring they can tackle WMD threats wherever they arise.

III. *Looking to the Horizon – The Future of the Biological Threat Landscape*

In looking to the future, we are also working hard to keep pace with the rapidly evolving biological threat landscape. The nature of this threat landscape is changing in part due to significant advances in various biotechnologies. The full range of U.S. national security departments and agencies are carefully assessing and addressing these issues but we unfortunately cannot talk about the specifics in this open setting.

As for what we are doing at the unclassified level, ISN's key mission related to emerging technologies, such as genome editing technologies and synthetic biology, among others, is to mitigate their potential security-related perils while preserving their benefits. We focus on preventing the application of dual-use technologies to do harm, such as development of biological weapons, and are exploring ways in which we can leverage all of our available tools – from global norm-building to international capacity building – toward this end. For instance, the Biological Weapons Convention provides an important vehicle to press countries to assess and manage risks posed by advances in the life sciences – and to apply such advances for peaceful purposes, such as disease prevention. We also leverage other key multilateral fora and our international partnerships to promote updated laboratory biosafety and biosecurity practices and industry best practices in biosecurity. In addition, we are strengthening international preparedness for investigating and responding to biological terrorism and pushing for the modernization of a 20th century regime to grapple with 21st century biological threats.

Our bureau will continue to lead the charge in key biological nonproliferation systems and our international partnerships to help mitigate the proliferation and potential security risks of dual-use emerging biotechnologies.

IV. *Conclusion*

We are proud of all we are doing to combat infectious disease threats using our diplomatic and foreign assistance tools in support of U.S. national security and foreign policy priorities, Mr. Chairman.

As demonstrated by COVID-19 pandemic, the emergence of new biological threats – especially emerging infectious disease outbreaks – have the potential to make significant impact on national security and biological nonproliferation, and we appreciate the continued support of the Congress to provide us with the necessary resources to carry out our threat reduction mission.

As I have attempted to articulate today, we strongly believe that biological weapons nonproliferation and biosecurity are critical components of national security and the work of the State Department, but we also recognize that our work is far from over.

Thank you, Mr. Chairman, Members of the Committees. I look forward to your questions.

* * *

Mr. BERA. Thank you for your testimony, Mr. Dolliff.

I will now recognize members for 5 minutes each. And pursuant to House rules, all time yielded is for the purposes of questioning our witnesses.

Because of the hybrid format of this hearing, I will recognize members by committee seniority, alternating between Democrats and Republicans, and between both subcommittees. If you miss your turn, please let our staff know and we will circle back to you. If you seek recognition, you must unmute your microphone and address the chair verbally.

I will start by recognizing myself for 5 minutes.

Both Mr. Oxford and Mr. Dolliff talked about the advances in technology. And as a doctor, I look at what we have been able to do with biologics. Conditions, cancers that we would have to treat palliatively, we now actually have therapies and precision medicine to often cure some of these cancers and other ailments. And I think the vast majority of scientists are pursuing and using this technology for the advancement of common good.

But I also know those same gene-editing techniques, and so forth, can certainly be used to cause us harm as well as, inadvertently, a scientist that may be looking for a cure may inadvertently create something that unintentionally causes harm.

Mr. Dolliff, you touched on, as I said in my opening statement, how do we create these norms and standards for ethical use of this technology in a multilateral way? And then, also, working with our corporate sector as well because, obviously, our pharmaceutical sector and others are looking for novel therapies. Right now, I get the sense that there really isn't the standard and norm. Maybe you could start off, Mr. Dolliff, and then, from the DoD perspective, how we do this in a multilateral way.

Mr. DOLLIFF. So, thank you, Chairman Bera, for raising this important set of questions.

First, I take your point. Medical technology is, indeed, advancing very quickly, especially in some parts of biosector. And we face this challenge across the board with technologies. Almost all technologies have applications, as you point out, for enormous good and can cause substantial harm.

We have been working on the issue of norms and standards for over a decade. And what we have done is tried to work through amongst other instrumentalities—the National Academies in cooperation with national academies in other countries. We have engaged other international organizations to try to address this subject, and we have also worked in partnership with other governments.

We have included working with the corporate sector. For example, we work closely with partners in India. And in those outreach and trainings that we do in India, we include both the government sector and the corporate sector, as well as NGO's, as we try to build biosecurity, including through building norms.

I will note I think building norms is always challenging, and it is probably at least as challenging at the moment in the midst of the pandemic. But I take the chairman's point that this is a particularly important area, and we will continue to increase our efforts in this area.

Mr. BERA. Great.

And Mr. Moore touched on the billions that we have already provided in global health security funding in some of the COVID-19 supplementals. And no doubt as we look to defeat this virus, both here domestically through vaccine distribution and development, but also globally—maybe I will look at some of the DoD colleagues or, Mr. Moore, if you want to answer this. As we are spending that, how can we do that in a very strategic way that allows us to start building the surveillance tools, and what should those tools look like? And what is the best practice? Maybe, Mr. Lasseter, if you want to.

Mr. LASSETER. Yes. Thank you, Mr. Chairman. Very important.

And I would just add on the biotechnology front that we view it as a promise-in-peril scenario. So, there is a whole lot of promise and the U.S. bio economy is strong. We must keep it No. 1. And there is a lot of peril, which you have described.

From a vaccine standpoint, as you asked, it is vitally important that we continue to work as an interagency together. We have also got to provide information, flow information, across international organizations, those that have been mentioned previously. But it is incumbent upon us to share the information. So, we work with our partners and allies and we expect dependable, clear information to come back. And that is vital. If we are not sharing the information, and if we are not doing it effectively and clearly, then we run the risk of having more severe outbreaks as the technology advances and as a globalized economy increases.

Mr. BERA. Mr. Oxford, do you want to add anything?

Mr. OXFORD. Thank you, Mr. Chairman.

As an implementing organization, we are in a position to help train, educate, and enforce some of the norms that would be created. But I would point out that, in today's biological threat world, it is really hard to distinguish between nation-State, non-nation-States, and their proxies in terms of who is responsible for these actions. So, getting to norms is a much more complicated issue. In the past where we had mostly nation-States where we would worry about this, now we have a much bigger playing field to try to figure out. And that complicates not only norms and standards, it complicates attribution and accountability for these kinds of things. So, I think it is a noble goal, but it is much more complicated in the kind of diverse world we are facing.

Mr. BERA. Great. Thank you.

I see my time is up. Let me recognize the ranking member, acting ranking member, Mr. Perry.

Mr. PERRY. Thanks. Thanks again, Mr. Chairman.

And to our panel, thank you.

Mr. Oxford just mentioned some of the non-State actors, and I am going to talk about some of the non-State and the State actors. So, as you know, in 2018, Russian agents used the Soviet-developed Novichok class nerve agent in an attempt at assassination of former Russian spy Sergei Skripal in the United Kingdom. And early this year, it was used again against opposition figure Alexei Navalny.

I wonder what we could—you know, it is hard to prove, right? We are pretty sure, but it is hard to prove. It is kind of like the

coronavirus and the Wuhan Institute of Virology. We have got some pretty strong opinions about it, but it is hard to prove them. How can we, or how can the international community, enforce accountability for State actors who do such things?

Mr. OXFORD. So, Mr. Perry, that is a really tough question, as you know. I mean, just getting to the accountability on this case, and that is why I mentioned accountability in my previous comment. A lot of this can be denied. The actual scientific evidence wasn't necessarily shared immediately with us. We do now have people in this country that have been provided some of the samples. So, we are able to get in there and actually do some of the assessments.

So, as Mr. Lasseter said, a lot of this is about agreements on information-sharing, so we rapidly come together as allies to be able to actually put the blame where it is necessary. But it is a very hard problem, given that we have not spent enough time and effort in this country on bioattribution. We have spent years on nuclear attribution, but we have not spent any time on bioattribution.

Mr. PERRY. Yes, watching what happened to Skripal, and now Navalny, and others, quite honestly, we tend to think that that happens over there, so to speak, but the U.K. is obviously a close friend and an ally, and I find that exceptionally concerning. And I understand. I am sure you are thinking about it. I just do not know if you had any answers to impart. And maybe if you have some, you do not want to have them in an open session.

Did you have something to add there, Mr. La?

Mr. LASSETER. Sir, I would just say that, yes, the further use—obviously, a chemical weapon—but the further use and seemingly acceptability across the world has to be confronted. As Director Oxford said, there is significant effort being put into this particular incident across the U.S. Government and across the international community. So, efforts are underway to at least work on the international norm piece of response.

I would say that, you know, you mentioned threats, and from the biological threat perspective, although much information would be required at a higher level, we can say at an unclassified level that Russia, at least the State Department has said that there is no way to confirm their adherence to the Biological Weapons Convention. Pretty certain that China is not adhering to it, both from an Article I and Article II perspective. So, it grows and grows in concern, and the help of Congress and across the interagency is vital to get after these threats.

Mr. PERRY. Okay. And I appreciate—you know, look, I know it is difficult, and that is why we are here—so, we appreciate your efforts in this regard and any help that we can offer.

On the non-State actor side, you have got anything from a recently arrested Canadian woman crossing into the United States and mailing the President of the United States and a sheriff in Texas a letter containing ricin. We have seen similar things in the past.

But we have also seen the Islamic State procure—I think there was a mustard gas attack in northern Iraq in 2015 and 2016. Now, when I was in Iraq, the stuff was, quite honestly, fairly prevalent. So, it should be no surprise how they found that.

But, in those two instances, I am just wondering what is the status of the illicit chemical weapons trade or bio weapons trade, or availability of things like ricin, and how you guys are working with either overseas counterparts or among each other. I mean, maybe not even overseas, right? Canada is right across the border. So, what are you guys doing with those type of things and what is the status of that, the trade?

Mr. OXFORD. So, Mr. Perry, I can tell you in the Middle East scenario what we have seen. Through the counterterrorism activities, we have been able to take most of the chemical expertise off the battlefield, so to speak. They have tried to resurrect periodically, but they have not been successful. So, it is a matter of the expertise.

Ricin has been attempted multiple times. Usually, it has never gotten to weapons grade. So, maybe we have dodged a bullet. But there is the need to look across that spectrum, and the terrorist groups have had this intention. They just have not had the expertise, and we need to make sure that they do not gain that expertise.

Mr. PERRY. Mr. Dolliff.

Mr. DOLLIFF. If I could add to that a little bit, on the diplomatic side, we have worked very closely with international partners against this particular threat. We also have programmatic elements working in key States to address the specific State and the specific set of non-State threats. We have diplomatic efforts. We have integrated our concerns about WMD into broader international diplomatic discussions about counterterrorism.

With regard to your question about trade, we do strengthen international controls on chemical and biological precursors. But I will say that, in general, I believe the evidence is that much of these efforts use chemicals and precursors that are procured within a State. So, we will continue to tighten up in that area. But most of it appears home-grown.

Mr. PERRY. Thank you. My time has expired. I yield.

Mr. BERA. Let me go ahead and now recognize Chairman Langevin.

Mr. LANGEVIN. Thank you, Mr. Chairman. Can you hear me okay?

Mr. BERA. Yes, we can.

Mr. LANGEVIN. Very good.

Well, thank you, Mr. Chairman.

I want to thank our witnesses again for their testimony and the important work that you are doing in this area on behalf of the country.

I want to go back. In my opening statement, I talked about the concerns I had about the significant cut to the Cooperative Threat Reduction Program. So, compared to the 2020 levels, the Cooperative Threat Reduction Program was cut by \$135 million in the President's budget request this year. And within that program, the cooperative biological engagement effort was cut the most, by over \$55 million. So, given the pandemic in which we find ourselves, we are alarmed by the Department of Defense's significant cut to this mission of detecting and confronting biological threats in the United States.

So, I want to begin, Director Oxford, this is a program that Congress clearly supports. What additional work would DTRA be able to perform if Congress is, in fact, able to restore the funding to the fiscal year enacted level, and especially, what other work would you be able to do under the Bio Threat Reduction Program, which was cut the most?

And to Mr. Lasseter, I want to know how the Department's perspective on the importance of the Biological Threat Reduction Program evolved over the past 6 months of the pandemic, and how is the Department served to support the COVID-19 fight?

But let's start with Director Oxford.

Mr. OXFORD. Thank you, Mr. Chairman.

Again, based on the House mark, we have looked at the programs. We would be able to restore activities in 22 countries with the entire House mark. In addition, 15 of those would be within the BTRP program. We can provide the committees with the specific examples of what countries would be restored. Plus, we would be able to restore activities on a regional basis with EUCOM, CENTCOM, as well as AFRICOM and INDOPACOM. So, we would be able to restore some of the original emphasis in this area, which gives us broader coverage across those regions in question. But we would be able to restore activities for BTRP in 15 countries as well as those regions I mentioned.

Mr. LANGEVIN. Very good. We are going through, obviously, the conference process with the Senate, and also, we are dealing still with Appropriations. But it is our intent to restore that funding.

Mr. Lasseter, on the question of the 6 months of the pandemic and how your work has evolved.

Mr. LASSETER. Yes, sir, Mr. Chairman, if I could add that we do want to give appreciation—I know the witnesses have—for the longstanding support that this committee, these committees—pardon me—and both sides of the Hill, both sides of the aisle have given toward the Cooperative Threat Reduction Program.

And I would say that the Biological Threat Reduction Program, as you know, has been operating for over 16 years in over 30 countries doing great work. As far as the last 16 months, the DoD effort—obviously, the international effort is led by our colleagues in the State Department—

Mr. LANGEVIN. No, in the last 6 months of it.

Mr. LASSETER [continuing]. And USAID. Yes, sir. And from a DoD perspective, managed through the Stability and Humanitarian Affairs Office. And so, they managed it over the course of the last 6 months and nearly about \$100 million in DoD support to over 100 countries.

As it relates specifically to BTRP, as you know, most of the support is historical in nature. So, a lot of the training, a lot of the lab support, has been over the course of this 16 years to these willing partners. And so, that work, that information flow is what is most vital.

I can say, specifically, for BTRP direct funding in response to COVID, it is around \$7 million. Much of it is PPE, but a lot of it is training. And it goes back to the historical relationships with these countries where we provide robust training and information flow. And so, that has been the focus, is making sure that these

partner countries know they have a reach back resource and that we can, and Director Oxford's team can, provide that information to those partner nations.

Mr. LANGEVIN. Director Oxford, let me go back to you, because we appreciate all DTRA's efforts to lean forward out of this COVID fight. Can you tell us about the work DTRA has been doing to help with the COVID R&D effort through Chem-Bio Defense Program funding? You know, DARPA early on was using its R&D funding early on to meet the challenge, the crisis. Describe what you have been able to do. Or have you been hamstrung because of lack of support of authorities?

Mr. OXFORD. So, Mr. Chairman, I think a lot of people have made comparisons between our response to Ebola versus the COVID threat. The Ebola pathogen was declared as a threat pathogen by CDC, which allowed DoD to expend its resources against a threat. COVID-19, considered a pandemic and a disease, prevented us from using Chem-Bio Defense Program money, but we have used our expertise in several ways. Using CARES Act money, we have been able to actually benefit from that.

We have a program underway that is looking at the rapid assessment of environments. We call it the RATE program. In this case, using wearable technologies, we are looking at identifying the onset of symptoms and illnesses, not specifically COVID, but it would give us some advance notice that an illness may be on the way 48 hours earlier than projected, so the appropriate testing could take place. So, our expertise has been applied, but not specifically the Chem-Bio Defense Funding.

Mr. LANGEVIN. I know my time has expired, but thank you. We obviously have some work to do in these areas to strengthen the authorities. You should be able to use those R&D funds at a time like this, and we will work with you to make sure that that happens.

Thank you, Mr. Chairman. I yield back.

Mr. BERA. Thank you, Mr. Chairman.

Let me now recognize my good friend, the gentleman from Washington, Mr. Larsen.

Mr. LARSEN. Thank you. Thank you, Mr. Chairman.

So, the first question, I think it is probably for Mr. Oxford. I was just wondering if you can help us understand with regards to the biological threat kind of what that role is for DTRA for a response, and then, what that role is for DTRA in terms of contributing to the future thinking about what to do. Are you strictly responding to requests or do you have a role in planning ahead and proliferating that information about what to do when you plan ahead?

Mr. OXFORD. Thank you, Mr. Larsen.

We actually play two roles in the CTR Program. We are actually not really in a response role, but in the COVID environment, as Mr. Lasseter said, the years' worth of work that we had done to prepare some of those nations, they were able to rapidly respond. They need an infusion of some capabilities, for example, PPE, test kits, and those kind of things. Morocco specifically, there were 199 trained laboratory technicians that we had trained through the CTR Program. So, with \$100,000 worth of PPE, we were able to get them in a situation where they could start doing the response. So,

we are not really a response program in that regard, but we are able to benefit from what we have done over the decades or so of working with them.

In the Chem-Bio Defense Program, we are actually on the cutting edge of all the research and development. So, we are looking forward, as we have made reference, to things like synthetic bio. We fully understand, based on the technical expertise, what the nefarious ways that synthetic bio can be used. So, on the flip side, we are also looking for the offensive advantage we might gain by understanding synthetic bio, by making detectors better able to resolve things faster. So, we do have that forward look through the Science and Technology Program that we operate.

Mr. LARSEN. Yes. And, Mr. Lasseter, kind of on that point, this is two approaches. One is, I noted in your testimony, your written testimony, you talk about how you are organized in your role in cooperation with the Department of Defense R&E, Research and Engineering. Can you discuss that a little bit?

And second—and I do not know if this would be for Mr. Lasseter or Mr. Oxford—the combination of where emerging technologies meet, I think that is in Mr. Lasseter’s written testimony, a discussion about drone technology and dissemination of biological agents. Maybe you could touch on that, what we ought to be thinking about in the future.

Mr. LASSETER. Thank you, Congressman Larsen. Appreciate the questions very much. Very important.

We are spending, you know, quite a bit of time and resources across the Department. So, I had mentioned research and engineering, they are vital to the efforts to ensure we have going forward what we need, what our war fighters need to fight and win in a contaminated environment.

As Director Oxford noted, the Chem Bio Defense Program is vital in that. With respect to some of these technologies, they are concerning. The Department, though, is right-sized and fitted to respond to them.

So, the way we are organized, at least across the CWMD enterprise, quite robust. A number of organizations, as you can imagine, from the Joint Staff, from our policy perspective, the Combatant Commands for the services.

So, we, we come together fairly regularly in an effort I think would be highlighted, and it is important for you to know about, is the CWMD Unity of Effort Council, 3-star level council. Director Oxford and I, obviously, participate in that.

And in that forum we are able to flow these issues up for discussion and decision. It is an area that we can get full information across the Department and make decisions at the highest level. And so we think that is vital to some of these issues that you highlight.

Now, obviously, you know, in this setting a little harder to get into some of those issues. I know you recognize that. But we are, we are resourced properly and we are right-sized to go after those threats, sir.

Mr. LARSEN. If I could just follow up on part of that. You, obviously, you do not run DoD’s research and engineering, that is under a division that is pretty high up, obviously, on the org chart

at the Pentagon. Do you have that—not the opportunity, has R&E come to recognize this as a higher priority now, or is that something you are having to battle out with research and engineering in their list of priorities that they have already had?

Mr. LASSETER. Well, you know, I speak fairly regularly with Dr. Michelle Rosa who covers down on this issue set. As you have recognized, a lot of tremendous talent at the Department across the intelligence community that flows us information on a daily basis, if not hourly basis.

So, if we need to flex—and that is one thing that Mr. Oxford, Director Oxford's organization DTRA they are very agile. So if we need to adjust to go after a threat, we can do it. But we, we do welcome the interest and support of Congress in doing so.

Mr. LARSEN. Well, we welcome giving you the support and, more importantly, the interest in doing so. Thanks so much.

Mr. BERA. Thank you.

Let me recognize the gentleman from the Commonwealth of Massachusetts, Mr. Keating.

Mr. KEATING. Thank you, Mr. Chair, and thank our witnesses.

I was, as a member of both Armed Services and Foreign Affairs I want to thank you both for having this joint hearing. But I want to address, you know, how the sharing that was mentioned by the witnesses before of information is critical.

And so, I want to ask, as the COVID-19 pandemic progressed and military intelligence followed it and saw that escalation, just from a timeframe what, what kinds of levels of alert occurred in January and February during that period? Was there a change in the level of alert based on military intelligence during that period? And did it occur in January and February, or February?

Mr. MOORE. Thank you, sir, for that question.

What I can tell you is that in February Secretary Esper identified three priorities to combat COVID:

First, being to protect our people;

Second, to maintain mission readiness;

And, three, to ensure that we were supporting the whole of government effort.

With that came, you know, at least internally within DoD, different health protection levels. And so pretty early, as you will probably recall, in March at least as it relates to the Department of Defense we were put in HRECON situation that reduced the number of folks present at their jobs. So, with that information flow did happen, and does happen.

I think we have pointed out to all of us here today that information flow is vital. While the intelligence community can collect and does collect information, analyzes it and gets it out to policy-makers, and to include Congress, there must be flow of information across the entire globe. And it must happen from all parties and all countries. We cannot expect just the United States and our allies—

Mr. KEATING. To get to the point.

Mr. LASSETER. Yes, sir. Go ahead, please.

Mr. KEATING. Was there a level of alert change that corresponded with that in as early as February?

Mr. LASSETER. Well, sir, as early as February, in March was when, I believe—and I would have to go back for the exact date—but that’s when the HRECON changed. Obviously over the course of those months before information was continuing to flow and the proper, you know, resources applied to analyzing that information.

Mr. KEATING. Was there a change to a Level 1 alert in February?

Mr. LASSETER. Sir, I—

Mr. KEATING. That would have been the first time in our history that a pandemic raised itself to that level. Did that occur?

Mr. LASSETER. Sir, I cannot tell you the exact date. I would need to go back and get that and provide that information to you and the committee, please.

Mr. KEATING. Let’s assume that it might have. Would you transfer that information immediately to our State agencies and our agencies of State, State Department and Congress?

Mr. LASSETER. Sir, as you know, the intelligence community is quite large. And so, you know, all the organizations today have an intelligence portion to them. And so that information is shared across the intelligence community. I say “that,” but information generally is shared across the intelligence community.

And so, we do that on a daily basis and we flow information back and forth.

Mr. KEATING. I see. Well, my concern is that Congress was not notified in as timely a fashion to those changes. So, if you can get back to the respective committees, tie down that date, and what the significance was. Because it is my understanding in terms of what is publicly accessible that there was a change. It is my understanding that it was historic in terms of the first time a pandemic was addressed with that level of change.

And I am concerned about the sharing of information, which was slow to Congress, whether it was also slow to our other State Department agencies, and relevant agencies, and the agencies appearing before the committee here today. Because, indeed, if we are going to do this, what you have said as witnesses, placing the importance on sharing that information, it is critical. And it is my concern that that was not being done in a timely fashion.

So, if you could get back to us, I would appreciate that.

And with that, Mr. Chairman, I yield back.

Mr. BERA. Thank you, Mr. Keating.

Let me recognize my good friend from the state of California, Mr. Sherman.

Mr. SHERMAN. Thank you. There has been discussion, I believe by the first ranking member to the “complicity” of the WHO. The WHO is a coordinating organization, it is not an intel organization. It has no way to know whether what China is saying is complete, and true, and transparent or not.

You know who does have an intel organization? The U.S. Government. And our intelligence is designed to know when China is not telling the truth.

In fact, the President was informed that this was breaking out in Wuhan far more than the Chinese Government indicated. He chose to ignore that, that intelligence, just as he seems to have ignored, much to the unfortunate harm to himself and his wife, ignored the best advice on how to avoid getting this disease and, un-

fortunately, misled millions of Americans as well into not wearing masks.

We spend many hundreds of billions of dollars defending ourselves from kinetic threats, and very little on defending ourselves from anything else. We have—did not have civil defense designed for either a deliberate or naturally occurring plague. We did not have stockpiles of PPE. We did not have the education. We did not have the ventilators, although we quickly made some. And we did not have the capacity to do tracing.

This all, in spite of the fact that the national security strategy recognized that biological incidents have the—this was in 2017—the potential to cause catastrophic loss of life, and the threats are growing, whether as a result of deliberate attack, accident, or natural outbreak.

Which raises the question—and I know we are not in a classified setting—what is the Administration’s operating assumptions or likelihood, or how would we assign percentage likelihoods to the four possibilities as to how this plague began?

We are told perhaps it came from the wet market. And it may have come from the Wuhan lab which might have been engaged in entirely peaceful activities and had a tragic release. It could have come from a Wuhan lab that was engaged in military activities but had an unintentional release. And I think least likely at all, it could have come deliberately from a Wuhan lab.

Do we have any operating assumptions? Are all of those possible? Although I think the deliberate release is highly, highly unlikely.

What does the Administration, what does the Administration think is the cause of this?

Mr. LASSETER. Thank you, Congressman Sherman. It is an important question.

I think we are, we as an international community but, obviously, the U.S. Government are still, one, we are working right now, presently, to respond to this crisis. As you are—

Mr. SHERMAN. So, you are saying any one of those possibilities is possible and the U.S. Government does not have much of an opinion on which is the cause?

Do the other witnesses agree with that? Mr. Moore?

Mr. MOORE. Congressman Sherman, thank you for the question.

You have mentioned four possible scenarios. And certainly in discussions in an open forum there is a—there are varying levels of possibility. What we do know is that the virus described as COVID-19 was described in academic research that was published several years ago, including in the People’s Republic of China, identified as existing in animals. It is a disease that is a virus of zoonotic origin. But exactly as you say, sir, there are multiple possible—

Mr. SHERMAN. So, the idea that it was engineered is probably dismissed by that.

And I will quickly ask, normally when there is a catastrophe, the first thing anybody does is you close the barn door. China has said that this has come from a wet market. There are wet markets all over China. Has there been a massive change in how exotic animals are sold for human consumption throughout China?

Mr. MOORE. That is an extremely important point, and also something under the purview of the OES Bureau at State. Wildlife trafficking in a huge problem. The People's Republic of China continues to be the largest market for illegal wildlife—

Mr. SHERMAN. Has there been a big change from early 2019 to now, late 2020, in how these markets operate in China?

Mr. MOORE. There has not been a fundamental permanent change in blocking illegal wildlife trade, including its sale at wet markets in the People Republic of China. It is a practice which does exist in other countries as well. And we are working to end it.

Mr. SHERMAN. Thank you.

Mr. BERA. Let me now recognize the gentleman from Michigan, Mr. Levin.

Mr. LEVIN. Thank you so much, Mr. Chairman, for convening this super-important hearing.

It is no secret to the rest of the world that the COVID-19 pandemic was allowed to spiral out of control when it reached the United States. Over 200,000 Americans died. Case counts were falling months ago, but the New York Times reports cases are climbing at around the same pace as when New York City cases were skyrocketing way back in March.

The whole world can see this happening, including those who wish to do harm to our country.

So, let me pose this question to Mr. Oxford and Mr. Moore. Do you believe that there would be a heightened interest on the part of State and non-State actors in developing an important biological weapon against Americans? And if yes, how would the Department of State and Defense respectively prepare for that possibility?

Either of you can go first.

Mr. MOORE. I apologize, sir. The transmission was a little imprecise. What exact question would you like me to respond to, sir?

Mr. LEVIN. Sorry about that.

My question is do you think there will be a heightened interest on the part of State and non-State actors in developing an important biological weapon against Americans? And if yes, how will the Departments of State and Defense prepare for that possibility?

Mr. MOORE. With regard to the development of biological weapons, I think that would be better addressed to my colleague Mr. Doliff from the ISN Bureau.

Mr. LEVIN. Okay.

Mr. DOLIFF. This is a difficult question to address in an unclassified context. I guess what I can say is that we continually review these issues.

We had a discussion 2 days ago with our colleagues who are experts on these issues. I think I take your point that the pandemic, as I testified to, poses a substantial, enormous challenge to international security. And it must inherently be the case that our adversaries, whether they are terrorists or States, will take that into account in considering how to evolve their weapons systems.

Mr. LEVIN. All right. Let me put another question.

Since January 2017 the CDC's presence, presence in China has decreased from about 47 personnel to 14, with epidemiologist professionals getting cut. The National Science Foundation and

USAID also closed their Beijing offices during this time. And on top of that, the Department of Agriculture transferred the manager of animal disease monitoring programs out of China in 2018.

So, over the past 4 years we have gotten rid of a bunch of people who, it seems to me, would have been helpful to have in place as COVID-19 was emerging. At the very least, I think it would be helpful to have reliable sources of information about what was really happening on the ground.

Mr. Oxford and Mr. Moore, in general, why does the U.S. have experts like epidemiologists stationed in other countries? And how does this help defend us against biological threats?

Mr. OXFORD. So, again, from a Defense Department perspective, especially the implementing organization, you know, we are not responsible for where CDC and others operate overseas. So, I would have to yield to the State Department or go back to those other departments that do those kind of things.

Mr. LEVIN. All right, let's hear the State perspective.

Mr. MOORE. Thank you, sir. We would be pleased to offer a more detailed time line of who was assigned under the authority of the Chief of Mission in Beijing. At what time, I think the context for individual agencies sending staff there or reducing their staff there has a lot to do with both their needs, their budgets, and, of course, the viability of the work that they can actually do.

One of the constraints we face with regard to the People's Republic of China is that we still have not received all of the data. We would need to receive initial samples of the virus that have been sought since the beginning of the pandemic, even at the end of last year. That is extremely problematic, as is the work of the People's Republic of China to prevent the World Health Organization from declaring COVID-19 a public health emergency of international concern when that topic initially came up for discussion at the WHO in Geneva.

With regard to the specific agencies, with apologies, I would have to take that question.

Mr. LEVIN. All right. Well, Mr. Chairman, let me close by saying that I think it is extremely problematic for us to talk about what the WHO should do when we withdraw from it. I think it is extremely problematic for us to reduce our capability of scientific, and diplomatic, and public health experts to the units in China and around the world during a global pandemic.

And with that, with great thanks I yield back, Mr. Chairman.

Mr. LANGEVIN. Very good. Thank you, Mr. Levin.

Since there are no Republicans in the room right now, the chair recognizes Ms. Spanberger for 5 minutes.

Well, I think Ms. Spanberger is having some technical issues.

Well, I am told that there are no other members in the room right now. So, I would suggest is there, is Mr. Chairman Bera going to come back after voting and should we recess right now?

I am waiting to hear back from our committee staff.

Mr. LARSEN. Well, Mr. Chairman.

Mr. LANGEVIN. Yes?

Mr. LARSEN. This is Representative Larsen. I am the only member in the room right now, and Representative Bera is voting. And we are trying to get staff to answer your question about his return.

So, folks, if you just want to——

Mr. LANGEVIN. Okay.

Mr. LARSEN [continuing]. We will not recess right now. Perhaps just give us a few minutes.

Mr. LANGEVIN. Well, I am going to, what I will do then is I will ask another question that I have. I do not know if we are going to get to a second round now. But, until we get that clarified or Ms. Spanberger comes back on, then I will certainly yield to her.

But in the meantime let me go to Mr. Lasseter.

So, we have heard that there might have been direction to not spend Chem Bio Defense Program funding on the COVID-19 fight, which troubles me if true, even though the program specializes in developing countermeasures and vaccines, therapeutics, and pre-treatments. What do you need from us to ensure that you have the authority and the resources needed so that the Department is in fact prepared to rise to the challenge of emerging threats both today and tomorrow?

And is there work that you could be doing now to help the country in the COVID-19 fight that you do not currently have the authority or permission to do?

Mr. LASSETER. Thank you, Mr. Chairman.

For your first question or your statement that there is no Department prohibition or preclusion, I will say that the Chem Bio Defense Program primary focus is on the statutory requirements to develop and deliver capabilities that ensure the war fighter's ability to fight and win in a chemical or biological contaminated environment.

The COVID-19 support provided to the services and inter-agency is a combination of subject matter expertise, leveraging existing contracts to expedite delivery of capabilities, as an example, assisting with testing and evaluation. From helping to create detection, diagnostic, and treatment methods to investigating vaccines, the Chem Bio Defense Program continues to collaborate with the whole of government partners, and industry, and academia.

It is important to note that the Chem Bio Defense Program is a research, development, and acquisition program, and not necessarily a response capability.

But, I will say to your follow-on question, sir, that the Congress has been exceptionally helpful to the Cooperative Threat Reduction Program historically, as I referenced earlier, and over the last number of years. And so, support that we had asked for is really continued support for the program. We appreciate the information flow between, you know, our department, and I think I can say the same for the State Department. In between our staffs it is exceptional. And we look forward to continuing that communication flow.

Thank you, sir.

Mr. LANGEVIN. And no additional authorities that you are asking for right now that would enhance your work?

Mr. LASSETER. Sir, I think at the moment we are good. I know that our staffs have communicated historically. And I hope that they can, can continue to do that—pardon me—and if we do identify an issue or an authority that is necessary, we will be absolutely certain to bring that to you and your team.

Mr. LANGEVIN. Okay, thank you. That concludes my questions for right now.

Has anyone from the minority returned yet, or Ms. Spanberger, has she returned? Okay.

Mr. LARSEN. Yes, Mr. Chairman, this is Rick Larsen again. I am still the only member in the room.

Mr. LANGEVIN. Okay. Thank you, Mr. Larsen.

I will yield now to Ms. Spanberger if she has returned.

Okay, I understand that she is not on.

Ms. SPANBERGER. Can you hear me? Can you hear me, Mr. Langevin?

Mr. LANGEVIN. Yes. I have you now. Go ahead, Ms. Spanberger, you are recognized for 5 minutes.

Ms. SPANBERGER. Excellent.

So, thank you very much to the witnesses for being here. I appreciate your time and your presence. I have a question about staffing-related issues.

As a former CIA case officer I am aware of the importance of detecting threats before they actually harm Americans. And that must be our approach when it comes to biological security as well. We have to get in front of biological and health security risks before they can do significant damage like what we have seen with COVID-19.

And we have to work with our partners so that no matter where a threat arrives, arises, we can contain it.

And if the offices in charge of preventing and responding to these threats are understaffed, it is hard for us to get ahead of that problem. So, I open this up to all members of the panel.

U.S. national security agencies have long suffered from high rates of vacancies in the past few years. And given how long Federal hiring can take, we are likely to receive ripple effects of this for years. Are vacancies or limited staffing affecting your work currently? And, in your view, how can State and DoD reform hiring practices to ramp up to the needed capacity more quickly?

And a specific call-out on there, do your offices have trouble finding and recruiting staff with the specialized skills needed to focus on reducing biological security threats? And I open it up to the panelists.

Mr. LASSETER. Thank you, Congresswoman Spanberger. It is a great question. It is an age-old issue employing the right staff.

I can say from a CWMD perspective, we have an immensely talented team, full of professionals, from career civilians, to uniformed personnel, to government contractors. So, it would be hard to speak across the entire department, me personally doing that. But I can tell you that we are right-sized. We obviously always are looking or on the lookout for talent, and so we will continue to do that and continue to, if we can find talent, to bring them in the doors.

I will defer to my other colleagues.

Mr. OXFORD. Ms. Spanberger, from a different point of view, we operate a highly technical organization similar to some of the career fields you are referring to. Our recruitment strategy is healthy. Our retention rates are healthy. But we continue to look for additional talent as necessary. But so far our attrition rates, our rates are going steady.

So, I think in the chem-bio defense area that we operate, as well as the rest of our R&D organization, our health and welfare of the R&D community is very sound.

Ms. SPANBERGER. Thank you.

Mr. MOORE. Ms. Spanberger, on behalf of the OES Bureau at the State Department I am very pleased to report we have an outstanding, very active, and extremely expert team of both civil service, long-term colleagues, and Foreign Service colleagues on usually 2-year assignments.

I am pleased to say that in recent months we have been able to add to our staffing and bring on permanently a number of colleagues, including fellows from the American Association for the Advancement of Science. The State Department has a longstanding cooperation with AAAS so that we benefit from their technical and professional expertise.

The team is doing an outstanding job of dealing with COVID on the home front and, of course, working on it professionally.

Thank you.

Ms. SPANBERGER. Thank you.

Mr. DOLIFF. This is Phil Doliff from State.

So, I think I would echo the remarks of my colleagues. I think that vacancies have not been a substantial challenge in our part of the Department on this issue. As I testified, we have also been increasing our staff. We have added experts, using the special authority that the Department has provided in this regard. And we have added to the staffing of the offices that deal with biological issues.

So, I think in general we do not have staffing challenges.

We, too, have a great partnership and fellowship to bring us technical expertise. But I think recruiting technical specialists is sometimes a challenge. And we, that is probably the one area where at times it has been a bit of a challenge for us.

Ms. SPANBERGER. Thank you very much for sharing that. And I hope the committee can be involved to whatever end is appropriate in ensuring that you all can into the future recruit to the staffing levels that are necessary.

I am going to ask for the next question, if you will indulge me, because it will direct what my follow-up question is.

By a show of hands, do your teams participate in a war game exercise to train and prepare potential biological security risks for even this awkward circumstance with virtual and present? If you could just raise your hand if you do, because my follow-up question depends very much on if it is divided or.

[Show of hands.]

Ms. SPANBERGER. So, I see two and two from here. Three? Okay.

So, I am curious then with the majority of you participating in war games, do you and your colleagues draw upon the modeling and the simulation analysis to think through what quickly changing threats could look like and how to respond or be using this for biological threats?

And what have you learned from these tabletop exercises recently as it relates to COVID-19?

And my time is limited, so if one of you wants to take this one, I welcome you all to choose who goes next.

Mr. OXFORD. So, Congresswoman, this is Mr. Oxford from DTRA. One of the things we do to sustain capability overseas with the people who we have trained over the course of time in bio responses, we do exercises periodically just to make sure they are maintaining readiness and the standards that they have been trained to.

It is one of the ways that we start to transfer the responsibility of the CPR program to the host nations, but exercises and training are one of the key aspects of us understanding that their retention is there.

Ms. SPANBERGER. Thank you very much.

And, Mr. Chairman, thanks for the extra time. I yield back.

Mr. BERA. Thank you, Ms. Spanberger.

Seeing that there are no additional members who have questions, and it is always difficult in this virtual hybrid in-person format. And then toss on top of that the voting call.

So, I am going to use the chair's prerogative and just make a closing statement and then see if Chairman Langevin would like to make a statement as well. But, actually maybe a closing question.

The issue of bio-surveillance is something that I thought a lot about in terms of pandemic preparedness, et cetera, thinking about how we use some of the naturally occurring technologies that are out there: social media, search words, Google, et cetera. Yet, all of a sudden you see a jump in people searching incidents of fever or flu-like symptoms, et cetera. Some of that can be early warning systems for us to pay close attention.

I know wireless thermometers, et cetera, or thinking about how both in the midst of the pandemic, but then also, you know, what are early warning systems for naturally occurring threats and that are likely in use.

I do not know if folks from DoD or State could perhaps comment on how we should be thinking about that?

Mr. LASSETER. Chairman Bera, it is an exceptional question. And it is an all-of-above approach. You know, we have all talked today about the information sharing. That is absolutely vital. It is fundamental if we are going to ensure that we are detecting, interdicting, but specifically on this issue detecting threats and flowing that information really at this point globally.

And so, you know, it is working with our interagency colleagues, like we do on a daily basis here. It is also working with our international friends and partners.

I know Phil Doliff, Dash Doliff had mentioned the Global Partnership for Spread Against Weapons of Mass Destruction and Materials. That is a perfect organization. The Global Health Care Security Agenda is another effort that can provide information flow to dozens of countries around the world.

So, the all-of-above approach is necessary, and it has to, it has to apply information flow.

Mr. OXFORD. Mr. Chairman, as you recall, in one of my earlier answers I talked about regional approaches. When we started the CPR Program it was mostly, you know, nation State-specific, one program/one country. The regional approach allows for this kind of information sharing across regional boundaries. So, it enhances the

overall protection within regions as opposed to just looking at this solely by country. So, it really does help in the broader understanding.

Mr. DOLIFF. I think the chairman raises a very good point that we have a whole set of emerging tools that can greatly add to information sharing and biosurveillance. We wondered in the pandemic how to expand the toolset that we have to additional tools.

For example, in Uganda and in Africa there are a whole set of cell phone-based tools that we had not previously used to the degree we use now. And so, we are trying to take advantage of the whole new toolset that is out there.

And I think the global pandemic, I think the chairman noted that there is great infrastructure being built to deal with this pandemic, and there are new technologies that are being integrated in the biosurveillance. And this is a good example of how we need to build out our capabilities and our data flows to capture all the information that is available.

Mr. BERA. Well, great. I certainly want to thank all four of our witnesses for their service to our country. And, again, you know, make sure everyone is safe. And we will get through this. But let's get through this in a more resilient way and a stronger way, and a way that we can protect against the next pandemic or future bio threats.

I do not know if Chairman Langevin is still on and if he wants to make any closing statement?

Mr. LANGEVIN. I am here, Mr. Chairman. And thank you for your joint collaboration in putting this hearing together. And I have enjoyed working with you on this. And certainly it is an important hearing and very timely right now.

I, too, want to thank our witnesses. And, obviously, the work in your portfolios, whether it is countering weapons of mass destruction, or the work of DTRA, and our other witnesses, your portfolios, these are, obviously, essential capabilities that you bring to the table that are important to the Nation and, indeed, the world.

So, we have continued work that we are going to continue to do together. We want to make sure you get properly resources and that we have the plans and the procedures in place to respond effectively. And we can rest assured there will be some future event that we are going to have to confront, and we want to make sure that we are as prepared as possible and can respond with the speed and agility that is necessary in order to save lives, keep people healthy, and protect the country.

So, with that, I deeply thank you for the work you are doing. I know that members may have additional questions, and I ask that you respond in writing expeditiously.

With that, I have no further question. And I yield back, Mr. Chairman.

Mr. BERA. Thank you, Chairman Langevin.

And, again, our thoughts and prayers are with everybody around the world who is impacted by COVID-19, and certainly with our President and First Lady, and the First Family.

And with that, again I want to thank the witnesses for being here this morning, and the hearing is adjourned.

[Whereupon, at 11:40 a.m., the subcommittees were adjourned.]

APPENDIX

JOINT SUBCOMMITTEE HEARING NOTICE
COMMITTEE ON FOREIGN AFFAIRS
U.S. HOUSE OF REPRESENTATIVES
WASHINGTON, DC 20515-6128

Subcommittee on Asia, the Pacific, and Nonproliferation

Ami Bera (D-CA), Chairman

COMMITTEE ON ARMED SERVICES

Subcommittee on Intelligence and Emerging Threats and Capabilities

James R. Langevin (D-RI), Chairman

October 2, 2020

TO: MEMBERS OF THE COMMITTEE ON FOREIGN AFFAIRS

You are respectfully requested to attend an OPEN joint hearing of the Committee on Foreign Affairs Subcommittee on Asia, the Pacific, and Nonproliferation and the Committee on Armed Services Subcommittee on Intelligence and Emerging Threats and Capabilities to be held in Room 2172 of the Rayburn House Office Building. Pursuant to H.Res. 965, Members who wish to participate remotely may do so via Cisco WebEx. The hearing is available by live webcast on the Committee website at <https://foreignaffairs.house.gov/>.

DATE: Friday, October 2, 2020

TIME: 10:00 a.m., EDT

SUBJECT: Strengthening Biological Security: Traditional Threats and Emerging Challenges

WITNESSES:

Mr. Phillip Dolliff
Deputy Assistant Secretary for Nonproliferation Programs
Bureau of International Security and Nonproliferation
U.S. Department of State

Mr. James Moore
Senior Bureau Official
Bureau of Oceans and International Environmental and Scientific
Affairs
U.S. Department of State

Mr. David Lasseter
Deputy Assistant Secretary of Defense for Countering Weapons of
Mass Destruction
U.S. Department of Defense

Mr. Vayl Oxford
Director
Defense Threat Reduction Agency
U.S. Department of Defense

By Direction of the Chairman

The Committee on Foreign Affairs seeks to make its facilities accessible to persons with disabilities. If you are in need of special accommodations, please call 202/225-5021 at least four business days in advance of the event, whenever practicable. Questions with regard to special accommodations in general (including availability of Committee materials in alternative formats and assistive listening devices) may be directed to the Committee.

To fill out this form online, either use the tab key to travel through each field or mouse click each line or within blue box. Type in information.

COMMITTEE ON FOREIGN AFFAIRS

Note: Red boxes with red type will NOT print.

MINUTES OF SUBCOMMITTEE ON HFAC, Asia, the Pacific, and Nonproliferation and HASC Intelligence and Emerging Threats and Capabilities HEARING

Day Friday Date October 2, 2020 Room 2172 & via WebEx

Starting Time 10:02am Ending Time 11:40am

Recesses (____ to ____) (____ to ____)

Presiding Member(s)
Chairman Ami Bera

Check all of the following that apply:

Open Session Electronically Recorded (taped)
Executive (closed) Session Stenographic Record
Televised

To select a box, mouse click it, or tab to it and use the enter key to select. Another click on the same box will deselect it.

TITLE OF HEARING:
"Strengthening Biological Security: Traditional Threats and Emerging Challenges"

SUBCOMMITTEE MEMBERS PRESENT:
See attached

NON-SUBCOMMITTEE MEMBERS PRESENT: *(Mark with an * if they are not members of full committee.)*
Rep. Chabot

HEARING WITNESSES: Same as meeting notice attached? Yes No
(If "no", please list below and include title, agency, department, or organization.)

STATEMENTS FOR THE RECORD: *(List any statements submitted for the record.)*

TIME SCHEDULED TO RECONVENE _____
or
TIME ADJOURNED 11:40am

Clear Form

Note: If listing additional witnesses not included on hearing notice, be sure to include title, agency, etc.

Subcommittee Staff Associate

WHEN COMPLETED: Please print for subcommittee staff director's signature and make at least one copy of the signed form. A signed copy is to be included with the hearing/markup transcript when ready for printing along with a copy of the final meeting notice (both will go into the appendix). The signed original, with a copy of the final meeting notice attached, goes to full committee. An electronic copy of this PDF file may be saved to your hearing folder, if desired.

(RSVP)

Attendance Sheet for Joint HFAC APNP - HASC IETC Hearing: "Strengthening Biological Security: Traditional Threats and Emerging Challenges" Friday, October 2, 2020 10:00 AM EDT

Democrats	Attendance	Republicans	Attendance
MR. BERA (CA) - APNP Chairman ✓	✓	MR. YOHO (FL) - APNP Ranking Member	✓
MR. LANGEVIN (RI) - IETC Chair		MS. STEFANIK (ND) - IETC Ranking Member	
MR. SHERMAN (CA) ✓	✓	MR. FERRY (PA)	✓
MR. LARSEN (WA)		MR. GRAVES (MO)	
MS. TITUS (NV)		MS. WAGNER (MO)	
MR. COOPER (TN)		MR. ABRAHAM (LA)	
MS. HOULAHAN (PA)		MR. MAST (IL)	✓
MS. GABBARD (HI)		MR. CONWAY (TX)	✓
MR. CONNOLLY (VA)		MR. CURTIS (UT)	
MR. BROWN (AL)		MR. SCOTT (GA)	
MR. LEVIN (MI)		MR. DESJARDINS (TN)	
MR. KHANNA (CA)		MR. GALLAGHER (WI)	✓
MS. SPANBERGER (VA) ✓	✓	MR. WALZ (VT)	✓
MR. KEATING (MA)		MR. BACON (NH)	✓
MR. KIM (NJ)		MR. BANKS (OH)	✓
MR. CROW (CO)			
MS. SLOTKIN (MD)	✓		
MS. TRAHAN (MA)	✓		

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OPENING STATEMENT OF CHAIRMAN BERA

**Opening Statement
The Honorable Ami Bera
Chairman, Subcommittee on Asia, the Pacific, and Nonproliferation**

**Joint Hearing of the
Subcommittee on Asia, the Pacific, and Nonproliferation
Committee on Foreign Affairs
and
Subcommittee on Intelligence and Emerging Threats and Capabilities
Committee on Armed Services**

Strengthening Biological Security: Traditional Threats and Emerging Challenges
Friday, October 2, 2020
10:00 am EDT

I want to thank Ranking Member Yoho, House Armed Services Subcommittee on Intelligence and Emerging Threats and Capabilities Chairman Langevin and Ranking Member Stefanik, members of both subcommittees, our witnesses from the Departments of State and Defense, and members of the public for joining us at today's hearing.

Many years before the COVID-19 pandemic spread across the globe, I became concerned by our nation's ability to respond to biological security threats. That is why I was a member of the CSIS Commission on Strengthening America's Health Security and have championed global health security priorities throughout my time in Congress. Our system is currently structured to rely upon a mixed set of capabilities – some lying at the Department of State, some at the Department of Defense, others spread across other agencies. I have found them to be woefully under-resourced and under-staffed considering the current and emerging risks our nation faces, and have consistently tried to support increases in the budget for these activities. I am especially grateful that Chairman Langevin was willing to bring together at least two pieces of the puzzle here today so we can consolidate our stove-piped architecture for a few hours to get a view of the bulk of our international security programs and activities.

Many of the risks we will discuss today are frightening. A year ago we may have assumed it was alright to scrimp on personnel and activities that were low risk, things we assume will never happen in our lifetimes. Unfortunately, the COVID-19 pandemic has highlighted the immense consequences that can result from a low-probability, high-impact biological event. It has impacted our daily lives, our economy, and our traditional security assumptions. COVID-19 is an example of the consequences that could ensue if a biological weapon was used. I am now convinced more than ever that our nation needs a proactive biological defense strategy that puts the United States at the forefront of international leadership to address the range of biological threats, including naturally occurring incidents, medical or research center accidents, or deliberate bioweapon attacks.

As Chairman for the Foreign Affairs Subcommittee with jurisdiction over nonproliferation, I am particularly concerned with two main issues. First, how are we working with our international

partners outside U.S. borders to mitigate these threats, programmatically and diplomatically. Second, is the United States well-resourced and well-positioned to be considering not just traditional natural, accidental, and deliberate biological threats, but also the new emerging threats and challenges that will accompany the continuing rapid advancements in the bio-technology field.

The nonproliferation field suffers from the same problem that faces most high-risk, low-probability events: success means nothing bad has happened. In the absence of bad events, it is easy for some to think that there is no point in spending a lot of resources on these problems. But allowing attention to fade away on what is, essentially, an evergreen problem is the wrong course of action.

COVID-19 has our nation's full attention, which has created a spillover opportunity to secure our nation from *all* forms of biological threats. This cannot be done without international cooperation. In 2014 the U.S. provided assistance to partner countries to address Ebola, which quickly helped to stop the outbreak from becoming far worse than it could have been. We realized that global health security is in our national security interest. We should be applying the same principles of international cooperation today.

Our Subcommittee continues to prioritize the work we do with our international partners in the biosecurity, threat reduction, and nonproliferation space. If nothing else, this pandemic has taught us that we have much work to do internationally to protect Americans from future biological events in all of its forms.

I have spent the past year giving special attention to this matter as a Member of the Foreign Affairs Committee.

In May, I sent a letter to Speaker Nancy Pelosi asking her to prioritize the international bio-engagement programs at the Departments of State and Defense as we continue to combat COVID-19. In March, before the full gravity of the pandemic had even set in, I highlighted the need for increased biosecurity programmatic and staffing resources for the State Department's International Security and Nonproliferation Bureau in a letter I sent to Appropriations Committee Chairwoman Nita Lowey as one of my priority funding requests.

Over these past several months, I have held several meetings with senior administration officials to discuss biosecurity matters. I have met the then Acting-head of the State Department's Nonproliferation Bureau multiple times to discuss their Biosecurity Engagement Program and talk about the work done by their Biological Policy Planning staff, before and during the COVID-19 pandemic. I have spoken with our Geneva-based Ambassador to the Biological Weapons Convention about the diplomatic work ahead of next year's anticipated BWC Review Conference. I had the pleasure of meeting one of our witnesses, DTRA Director Vayl Oxford, to discuss the Department of Defense's work with partner countries with the Biological Threat Reduction Program. A few months prior to this hearing, my subcommittee held a biosecurity briefing for Members of the Subcommittee with Dr. Beth Cameron, Vice President for Biological Policy and Programs at the Nuclear Threat Initiative and former NSC Senior Director for Global Health Security and Biodefense and Dr. Alexander Titus, Chief Strategy Officer, Advanced Regenerative Manufacturing Institute (ARMI) and former Assistant Director for Biotechnology at the Department of Defense.

These conversations have ultimately made me more concerned about our biosecurity posture, far beyond our COVID-19 response.

For decades the United States has played a leading role in working with international partners to strengthen their biosecurity standards through our cooperative threat reduction programs, both at the Department of Defense and the Department of State. But now, new challenges compel us to think outside of the box and beyond our previous programmatic work to keep Americans safer. Today, advancements in the field of biotech are producing technologies such as gene editing and DNA synthesis which are capable of causing great good -- or great harm.

Imagine a virus such as COVID-19. With advanced biotech, we can either quickly race to find a cure and develop a vaccine in a shortened time frame, or a bad actor could take the virus and edit it to become even more fatal or disruptive. The beneficial opportunities which will accompany many of these advancements should be encouraged, but need to be balanced against the risks of potential misuse. As a doctor, I firmly believe that guidelines for ethical and responsible use of biotech should be developed. Our government must work with non-governmental entities, such as academic research centers, laboratories, and private industry to develop these guidelines before chaotic development leads to dangerous technologies and methods falling into the wrong hands. This especially applies as such technology is democratized and accessible not only to Americans, but to actors around the entire globe.

I'm also concerned about the state of our international institutions that the United States has played a strong role in for so long that seem to be falling apart. To handle biological events and threats from a nonproliferation perspective, the United States has traditionally participated in multilateral meetings at the Biological Weapons Convention. Whereas international organizations like the International Atomic Energy Agency or the Organisation for the Prohibition of Chemical Weapons have hundreds of staff, the entire BWC's implementing organization is only supported through a three-person implementation unit. Do we really think that only three people can ensure the world is adhering to the global norm and international law against biological weapons? Beyond that, there appear to be issues with the decision making process at the BWC, a consensus-based organization. The BWC fills an important space in the international sphere that must used to develop stronger norms and guidelines for responsible use of dual-use capabilities, and we need to ensure the U.S. is giving it the attention it deserves.

Given the difficulties at the BWC, for better or for worse, many nations had turned to the World Health Organization for biodefense. As we all know, the Trump administration has withdrawn the United States from the WHO. However, even if the United States was still a part of the WHO, and even if the BWC's Implementation Support Unit had the staff it needed, the question still remains whether these two organizations are enough to address the emerging biotechnology and guide its international standard for ethical and responsible use—or whether such a duty belongs to a different entity.

Finally, I am worried that we're not doing enough to think about how our response to COVID-19, and our shoring up of our public health systems and capabilities abroad, is also being utilized to counter non-naturally occurring threats. This is particularly what I look forward to learning about

today from our witnesses. For example, how are we working with our international partners to establish shared tactics, tools, or methodologies to keep ahead of any biological incident? How are we working around the world to set up either early warning systems or bio-surveillance or detection capabilities? What can we discuss in an open setting to reassure Americans that as we are pouring in their tax dollars into defeating COVID-19, that we are also looking for the opportunities that we can use right now, right here to walk the public health walk and talk the national security talk?

Moving forward, we need to ensure that not only our current work through cooperative threat reduction is continuing with the investment it needs, but we are also looking ahead to establishing stronger international standards for laboratories, attribution, and a set of guidelines for the responsible and ethical use of emerging bio-technologies such as gene-editing and synthetic biology. The United States needs to continue to lead on the international stage because only the United States and our allies will ensure that any such development is done transparently and democratically, which is what we need for our own security. With that, I look forward to hearing the testimony of our witnesses. Thank you for your time.

STATEMENT OF LANGEVIN

Opening Statement

Chairman James R. Langevin

Intelligence, Emerging Threats and Capabilities Subcommittee

Joint Hearing with HFAC on Strengthening Biological Security:

Traditional Threats and Emerging Challenges

October 2, 2020

Thank you to my colleagues on the House Foreign Affairs Subcommittee on Asia, the Pacific, and Nonproliferation, and particularly Chairman Bera and Ranking Member Yoho, for hosting this timely joint hearing on biosecurity, which as we have seen of late is vital to our nation's security.

Emerging biotechnologies, such as synthetic biology, neuroscience, and gene editing are rapidly changing the scope and scale of biological threats and could lead to an increase in biological weapons. The current global pandemic underscores just how important scientific research and preparedness across the interagency is for our national and economic security. In a time when the United States is struggling to respond to the spread of a highly infectious pandemic, we must ensure the interagency is working together to respond to the current pandemic and advance the collective effort to strengthen biological security across the range of threats.

DTRA, through its execution of the Department's Cooperative Threat Reduction (CTR) Biological Threat Reduction Program (BTRP) and its Technical Reachback Analysis Cell, has been receiving foreign partner requests for preparedness and detection support including providing biosafety, biosecurity,

and bio-surveillance support to aid in the detection, diagnosis, reporting, and modeling related to the COVID-19 outbreak. There are many good examples of successful use of the BTRP program for training to diagnose and confirm the first cases of COVID-19 in BTRP countries like Guinea, Liberia, Cape Verde, Jordan, and Thailand.

Yet in the face of these threats and a global biological pandemic that could arguably present the single biggest threat to our country, this year's President's Budget Request reduced the Cooperative Threat Reduction Program's funding by 36% percent from the last year's enacted level. At a time when the United States is struggling to respond to the spread of a highly infectious new virus, we are alarmed by the Department's significant reduction in the budget request for a mission of detecting and confronting biological threats to the United States, and are pleased to say that our Fiscal Year 2021 National Defense Authorization Act, H.R. 6395, added back \$135 million to the CTR program, and \$89 million of that was additional funding for the cooperative biological engagement program.

Additionally, the Department of Defense's Chemical and Biological Defense Program (CBDP) was primed to be a key partner in the fight against COVID-19. Its Medical Program funds and manages efforts to develop medical countermeasures, vaccines, therapeutics, and pre-treatments. Its Physical Program funds and manages efforts to develop surveillance and detection technologies, diagnostics, personal protective equipment, and decontamination systems. To prepare against potential unknown threats, CBDP built expertise and capabilities to address novel pathogens, making it an ideal program to deal with

the emergence of novel coronavirus. We are interested in hearing today whether the program was quickly and efficiently directed to participate in the national response to COVID-19 pandemic.

We look forward to hearing more about the many efforts of both Departments today, and what we can do to help ensure your organizations have the authorities and resources needed to prepare the Department for the emerging threats of both today and tomorrow.

I join our hosts in thanking you all for joining us. I will now yield back to Chairman Bera.

RESPONSES TO QUESTIONS SUBMITTED FOR THE RECORD

**House Foreign Affairs Subcommittee on Asia, the Pacific, and Nonproliferation
and
House Armed Services Subcommittee on Intelligence and Emerging Threats and Capabilities
Joint Hearing:
Strengthening Biological Security: Traditional Threats and Emerging Challenges
Friday, October 2, 2020**

Rep. Chrissy Houlahan for David Lasseter

Question: Global partnerships and intelligence are required to effectively survey for biological threats and counter terrorism. However, the current administration has broken ties and agreements in the foreign policy space; particularly with the foreign withdraw to the World Health Organization in the midst of a global pandemic. As representatives of the State Department and Department of Defense, what type of relationship should the United States have with international bodies like the UN and the World Health Organization?

Answer: I will defer to my State Department colleagues on the specific question of what type of relationship the United States should have with the World Health Organization. Broadly speaking, the Department of Defense (DoD) believes global partnerships and information sharing are vital components for all activities the Department conducts, including countering biological threats. In a rapidly changing world, the United States must defend its interests and values against new threats and new competitors, and we do not want to, nor can we, do it alone. In this vein, the United States supports strengthening relationships with existing partners and allies while also building new partnerships. This concept is a central component of the 2018 National Defense Strategy as well as a priority focus of Defense Secretary Esper. DoD seeks to accomplish this goal by working with allied and partner nations to deepen interoperability, expand deterrent networks, and conduct exercises and operations. The Department also works closely with international organizations like the North Atlantic Treaty Organization (NATO) to enhance Allied readiness and increase defense contributions toward achieving shared defense-related goals. With regard to global biological threats, DoD works closely with the international community to improve partner nations' abilities to prevent, detect, report, diagnose, and respond to biological threats. Through programs such as the DoD Cooperative Threat Reduction (CTR) Program, the Department reduces threats against U.S. interests by working with partner nations to improve their biosafety, biosecurity, and biosurveillance capabilities. At the heart of these partnerships is open and accurate information sharing. This information exchange, and the trust it reflects, helps ensure the United States is quickly apprised of unique biological incidents to be more effective in protecting the health and readiness of U.S. forces, the U.S. homeland, and U.S. allies and partners.

Question: This pandemic we find ourselves in has made it clear, we need a whole of government approach to dealing with biological threats and identifying solutions. How is information shared across DOD and other federal departments/agencies, and what policies and processes exist regarding interagency coordination between the Department and other federal departments/agencies on research, development, acquisition, fielding and life-cycle support of biological defense equipment and medical countermeasures?

Answer: A critical component of the Department's strategy for countering biological threats is working in close coordination throughout DoD and with interagency partners. We pool resources and work

toward shared objectives to protect personnel and U.S. defense interests. Specific to my role as the Deputy Assistant Secretary of Defense (DASD) for Countering Weapons of Mass Destruction (CWMD), my office works in close coordination with various DoD and U.S. interagency colleagues, at both the expert and leadership levels. This multi-tiered approach ensures that biological threat reduction efforts are strategic, deconflicted, and leveraged to maximize the impact of U.S. investments to achieve biological safety and security, to the greatest extent possible. Internally, DoD has several mechanisms in place to ensure biological threat reduction efforts are properly coordinated. For my office, this includes participation in such forums as the DoD COVID-19 Task Force, the DoD CWMD Unity of Effort Council, the DoD Global Health Engagement Council, and the Global Health Security Agenda coordination cell. Externally, my office works closely with various U.S. interagency partners. With some of those partners, such as State Department's Bureau of International Security and Nonproliferation, my team has regular meetings spanning the CWMD spectrum. We also bring in interagency colleagues to CWMD annual discussions that inform our office priorities to address DoD needs and requirements for the coming years. Having these relationships ensures DoD engagements are coordinated and, if an issue arises, we know the organizations to contact for information sharing and to develop informed recommendations for timely resolution. Other parts of DoD coordinate regularly with U.S. interagency partners on other aspects of biological defense, including research and development and medical countermeasures. For example, the Under Secretary of Defense for Personnel and Readiness, through the DASD for Health Readiness Policy and Oversight (HRP&O), regularly interfaces with the Food and Drug Administration (FDA) to ensure DoD has the capabilities needed to protect the force, and for the use of medical countermeasures with FDA authorization. These coordination mechanisms are vital to ensuring information is accurately shared across DoD and with U.S. interagency partners.

Rep. Chrissy Houlahan for Vayl Oxford

Question: As biology becomes easier and easier to manipulate, there is a possibility that deployed troops could eventually be subjected to an adversary's biological weapons that could be very difficult to detect, including those that could potentially affect Americans once troops are sent back stateside. How prepared is the U.S. military for dealing with biological threats, and how active is its bio surveillance?

Answer: On military preparedness in facing biological threats, I believe that question is more appropriately answered by the Deputy Assistant Secretary of Defense for Chemical and Biological Defense (DASD-CBD), the Military Services, and/or the office of the Chairman of the Joint Chiefs of Staff (CJCS). DTRA has a limited role in the Department of Defense Biosurveillance program, which includes efforts to incorporate relevant health surveillance information from the Defense Health Agency (DHA) and medical intelligence agencies to develop CWMD situational awareness capabilities. These capabilities, in turn, support analysts, planners, war fighting centers, and decision makers. For additional details, I would defer biosurveillance questions to the Assistant Secretary of Defense for Health Affairs (ASD/HA) and the DHA in coordination with the Military Services. DTRA is directed to manage the Chemical and Biological Defense Program (CBDP) science and technology (S&T) program, which has in the past—and may in the future—include science and technology that can develop biosurveillance tools for use by other organizations, such as DHA. However, DTRA does not manage the operational use and monitoring of biosurveillance tools and capabilities.

Rep. Lori Trahan for Vayl Oxford

Question: As Biological Threat Reduction Program partner countries move towards the sustainment phase, how is DTRA engaging with U.S. universities and the associated scientific community to collaborate with in-country researchers to provide long-term sustainment for DOD investments?

Answer: BTRP leverages relationships with U.S. universities, the U.S. interagency, and the international scientific community to provide trainings, engage in biothreat surveillance research collaborations, and strengthen multilateral and multi-sectoral threat reduction networks with partner-country scientists. BTRP routinely works with U.S. universities and members of the international scientific community to build technical capacity and support collaborative research projects focused on biosurveillance of Especially Dangerous Pathogens (EDPs) and fostering a culture of biosafety and biosecurity best practices. These projects are carefully designed with input from in-country stakeholders to leverage previous DoD investments in infrastructure, equipment, and trained personnel. As bilateral partnerships mature, BTRP uses research projects as a means to facilitate greater partner nation responsibility for their research endeavors and transition the role of U.S. institutions from project-leading to technical support and training. These efforts focus on technology, education, and training to enable long-term sustainment and adoption of best practices in the laboratory.