ERADICATING EBOLA: LESSONS LEARNED AND MEDICAL ADVANCEMENTS

HEARING

BEFORE THE

SUBCOMMITTEE ON AFRICA, GLOBAL HEALTH, GLOBAL HUMAN RIGHTS, AND INTERNATIONAL ORGANIZATIONS

OF THE

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ERADICATING EBOLA: LESSONS LEARNED AND MEDICAL ADVANCEMENTS

Tuesday, June 4, 2019

House of Representatives,

Subcommittee on Africa, Global Health, Global Human Rights, and International Organizations,

Committee on Foreign Affairs,

Washington, DC

The subcommittee met, pursuant to notice, at 2:40 p.m., in room 2172, Rayburn House Office Building, Hon. Karen Bass [chair of the subcommittee] presiding.

Ms. BASS [presiding]. Good afternoon, everyone.

This hearing for the Subcommittee on Africa, Global Health, Global Human Rights, and International Organizations will come to order.

The subcommittee is meeting today to hear testimony on eradicating Ebola, building on lessons learned and medical advancements.

I want to thank everyone, including our witnesses, for your patience. We had a series of votes, and other members will be joining us shortly, but we are joined by our ranking member, Mr. Smith.

So, today we are here to discuss the eradication of Ebola and some of the medical advancements and lessons learned in trying to suppress this deadly disease. Ebola is one of the deadliest viral diseases in the world and has become a part of the global health landscape.

The recent discovery of an Ebola vaccine and better healthcare employee training have helped improve response times to outbreaks and decrease the ability of the virus transmitting to remote areas. However, Ebola outbreaks are often complicated by regional conflict, lack of trust between local communities and practitioners, and armed groups attacking and burning down treatment centers. This hearing will address the challenges and opportunities to combat the transmission of Ebola and the effort and collaboration needed by appropriate stakeholders.

I look forward to hearing more from our witnesses regarding the Ebola vaccines and how they are being used in this most recent outbreak.

So, without objection, all members may have 5 days to submit statements, questions, extraneous materials for the record, subject to the length limitation in the rules.

I recognize myself for the purpose of making an opening statement.

I would also like to thank our distinguished witnesses who are here with us today.

The current outbreak in the Democratic Republic of the Congo began in August of last year and is the second largest to date, and as of news reporting from today, may have reached up to over 2,000 cases and almost 1200 confirmed deaths. If we do not collaborate with all stakeholders to combat the outbreak and, ultimately, eradicate Ebola, the disease would surpass the 2014–2016 outbreak, the deadliest in history, which had 11,000 recorded deaths and 28,000 total cases. That outbreak started in Guinea, Liberia, and Sierra Leone, then spread to Mali, Nigeria, and Senegal, and even beyond the continent, with cases in Italy, Spain, the United Kingdom, and I think we all remember the cases in the United States.

The Ebola epidemic has been heightened because it is in a conflict zone in the Democratic Republic of the Congo. The epicenter of the outbreak is in North Kivu, which happens to have more than 100 active armed groups in the region. North Kivu also shares a border with Uganda and is a hub for travel and trade, but also various other types of movement across the border.

New cases are hard to determine because the violence and political unrest in the affected areas have further restricted the community's access to health care. The lack of security in the region is also hindering the Ebola response by making it difficult to trace context and organize crucial community outreach activities. Some health centers have been temporarily closed or damaged. Several of the health workers have been killed.

I know that the people of the DRC are frustrated because of the lack of medicine, food, and foreign companies extracting the country's precious minerals, but that is no excuse to burn down facilities or attack or kill people that are there to help treat this deadly disease.

What this indicates, though, is that we must work to do all that we can to keep these health practitioners safe. This means that we have to think beyond just providing humanitarian assistance for medical treatment. USAID Administrator Mark Green said in testimony before the Senate 2 weeks earlier that, when it comes to Ebola, the DRC setting is a labyrinth of challenges, poor governance, resentment toward community leaders. With a failed democracy in many, many ways, it will take more than simply a medical approach.

Considering the dilemma of suppressing this outbreak, I look forward to hearing your views and suggestions in your testimony or in the Q&A. I am also very interested in hearing the pros and cons of identifying this outbreak as an international public health emergency. Why would not we declare that? Those are just a few concerns I want to pose to the witnesses.

Finally, I am concerned that the Administration released a Presidential memo last November implementing aid restrictions to most of the Tier 3 countries found in the 2018 TIP report. It clearly states in Section 110, "The President shall exercise the waiver authority when necessary to avoid significant adverse effects on vulnerable populations, including women and children."

Not focusing resources on health, education, and community outreach hinders the success of countering the Ebola outbreak in the DRC, and I urge the Administration to act more diligently now. This Administration has an opportunity and an obligation to try to stop the deadly outbreak, and that is why we are having this hearing and I am introducing the Ebola Eradication Act of 2019, which would authorize USAID to assist with the Ebola efforts in the DRC.

Last, I believe that it is imperative that we not let Ebola reach Goma because, if it does, it is highly probable that it will reach Rwanda, Uganda, Ethiopia, and South Sudan—oh, my goodness—and that would have an effect on humanitarian efforts, peace and security, and economic trade.

So, the Tier 3 status is something I know the ranking member is the author of the TIP report and has worked for many years on this. And it kind of presents a little bit of a dilemma where we certainly do not want to do anything to reward a country that is a Tier 3 status, but, on the other hand, we have this situation where have Ebola in a Tier 3 country. So, what do you do? Not provide aid, when this disease, obviously, has international impact?

[The prepared statement of Ms. Omar follows:]

Congressmember Karen Bass
AGH Subcommittee Hearing
"Eradicating Ebola: Building on Lessons Learned & Medical Advancements"
June 4, 2019

This hearing for the Subcommittee on Africa, Global Health, Global Human Rights and International Organizations will come to order.

I note that a quorum is present.

The subcommittee is meeting today to hear testimony on **"Eradicating Ebola: Building on Lessons Learned & Medical Advancements".**

Today, we are here to discuss the eradication of Ebola and some of the medical advancements and lessons learned in trying to suppress this deadly disease.

Ebola is one of the deadliest viral diseases in the world and has become a part of the global health landscape. The recent discovery of an Ebola vaccine, and better healthcare employee training have helped improve response times to outbreaks and decreased the ability of the virus transmitting to remote areas. However, Ebola outbreaks are often complicated by regional conflict, lack of trust between local communities and practitioners, and armed groups attacking and burning down treatment centers.

This hearing will address the challenges and opportunities to combat the transmission of Ebola, and the effort and collaboration needed by appropriate stakeholders.

I look forward to hearing more from our witnesses regarding the Ebola vaccines, and how they are being used in this most recent outbreak.

So... without objection, all members may have five days to submit statements, questions, extraneous materials for the record, subject to the length limitation in the rules.

I recognize myself for the purpose of making an opening statement.

I would also like to thank our distinguished witnesses who are here with us today.

The current outbreak in the DRC began in August of last year and is the second largest to date with a reported almost 1800 confirmed cases and almost 1200 confirmed deaths. (from the World Health Organization)

If we don't collaborate with all stakeholders to combat the outbreak and ultimately eradicate Ebola, the disease will surpass the 2014-2016 outbreak, the deadliest in history, which had 11,325 recorded deaths and 28,652 total cases.

That outbreak started in Guinea, Liberia and Sierra Leone, then spread to Mali, Nigeria, and Senegal.... and even beyond the continent with cases in Italy, Spain, the United Kingdom and the United States.

This Ebola epidemic has been heightened because it is in a conflict zone in the DRC. The epicenter of the outbreak is in North Kivu (KEE-VU), which happens to have more than 100 active armed groups in the region. North Kivu also shares a border with Uganda and is a hub for travel and trade, but also various other types of movement across the border.

New cases are hard to determine because the violence and political unrest in the affected areas have further restricted the community's access to health care. The lack of security in the region is also hindering the Ebola response by making it difficult to trace contacts and organize crucial community outreach activities. Some health centers have been damaged or temporarily closed.

- In April, Dr Richard Valery Kibounga (Ki-boonga), a Cameroonian epidemiologist was killed during an attack on Butembo University Hospital
- In February, the Doctors Without Borders center in Katwa (Kat-wa) was set on fire and medical equipment was destroyed
- A few days later after the incident in Katwa, a treatment center in Butembo (Boo-tembo) was attacked and burned.

WHO has recorded 119 attacks against health workers this year---- and 85 people in those attacks have been wounded or killed.

I know that the people of the DRC are frustrated because of the lack of medicine, food, and foreign companies extracting the country's precious minerals, but that is no excuse to burn down facilities or attack or kill people that are there to help treat this deadly disease.

What this indicates, is that we must work to do all that we can to keep these health practitioners safe. This means that we have to think beyond just providing humanitarian assistance for medical treatment.

The complex security environment in eastern DRC, fraught political transition process in the country, and community mistrust are hindering all aspects of outbreak control. On May 16, 2019, U.S. Agency for International Development (USAID) Acting Assistant Administrator for Africa Ramsey Day said in testimony before the House Foreign Affairs Committee that, "We should all be concerned about the Ebola outbreak in eastern DRC. It is not contained, and it is not under control. This is no longer a public health crisis. It's a political challenge, as well as a development challenge."

USAID Administrator Mark Green said in testimony before the Senate two weeks earlier that, "when it comes to Ebola... the DRC setting is a labyrinth of challenges, poor governance, resentment toward

community leaders. You have a failed democracy in many, many ways.... It will take more than simply a medical approach.

Because of this, I am very concerned about the assistance we are providing. There are many complex and intersecting challenges, which means that any response must address the broader developmental challenges in the country. Admiral Ziemer, I would certainly like to hear from you specifically about how USAID is addressing Ebola from multiple perspectives and whether you have all of the resources you need to contain this outbreak. If funding is not the concern with addressing this outbreak, then I would like to know what the challenges are, and of course how they can be address.

Considering the dilemma of suppressing this outbreak, I look forward to hearing your views and suggestions in your testimony or in the Q & A. I am also very interested in hearing the pros and cons of identifying this outbreak as an international public health emergency. Those are just a few concerns I pose to our witnesses, and I look forward to hearing what you all think we should do to eradicate Ebola in the DRC and stop it from spreading to neighboring countries.

Finally, ... I'm concerned that the administration released a Presidential Memo last November implementing aid restrictions to most of the Tier 3 countries found within the 2018 Trafficking in Persons (TIP) report. It

clearly states in section 110 (d)(5)(B) of the **Trafficking in Victims Protection Act of 2000** that *"the President shall exercise the waiver authority when necessary to avoid significant adverse effects on vulnerable populations, including women and children."*

Not focusing resources on health, education, and community outreach hinders the success of countering the Ebola outbreak in the DRC, and I urge this administration to act more diligently now.

This administration has an opportunity and an obligation to try and stop this deadly outbreak, and this is why I am having this hearing and introducing the "Ebola Eradication Act of 2019", which would authorize USAID to assist with Ebola efforts in the DRC.

Lastly, I believe it is imperative that we not let Ebola reach Goma, because if it does, it is highly probable it will reach Rwanda, Uganda, Ethiopia and South Sudan....and that would have an effect on humanitarian efforts, peace and security, and economic trade.

I now recognize the Ranking Member for the purpose of making an opening statement.

I now want to recognize the ranking member for the purpose of making an opening statement.

Mr. SMITH. Thank you very much, Madam Chair. Thank you for convening this very important and timely hearing.

As she knows, the gentlelady from California and my good friend—and some of you may remember—this subcommittee was heavily engaged in the summer of 2014 in addressing Ebola when we were in the midst of an Ebola outbreak in Sierra Leone and in Liberia and the ensuing panic over the disease. We actually held three hearings during a 4-month span, a period when many around the world thought a new equivalent of the bubonic plague was about to jump borders and overwhelm the health systems, especially of Sub-Saharan Africa.

Indeed, there was a period when we thought that Nigeria, particularly in Lagos—and Nigeria is the most populous country in Africa—would suffer from a pandemic outbreak. But, thanks to a largely unheralded work of a number of key actors, including and especially our own Centers for Disease Control, the outbreak was contained. And while we did have cases in the U.S., due to highly effective quarantine measures and state-of-the-art medical care, we were able to dodge that bullet as well.

Perhaps our witnesses, Dr. Robert Redfield, can enlighten us further as to the critical role the CDC played with regard to global efforts and containing, and then, defeating, the 2014 Ebola outbreak, particularly in Nigeria, and lessons that have been learned.

Although in many ways today we are better equipped to address the Ebola outbreak, certainly in terms of vaccines that were not readily available in 2014, as a practical, boots-on-the-ground matter, we are in some ways worse off dealing with the current outbreak, which began in 2018. Last year's outbreak in the DRC has now spread in populated areas of the eastern DRC. What makes the situation more difficult this time is the security situation with attacks, vicious attacks, on healthcare workers.

As reported by The Washington Post, according to the WHO, there have been some 119 attacks against health workers this year—and that was as of May—with some 85 wounded or killed. The presence of expatriates, in particular, among the healthcare workers appears to have increased the militants who have carried out the attacks.

When one considers that these dedicated health workers put their lives on the line to help prevent and treat Ebola, the fact that they should be targeted boggles the mind. Recall the testimony of Dr. Kent Brantly at one of our 2014 hearings, how he contracted the disease, despite taking every precaution, while helping Ebola patients in Liberia.

We hope to get an update from our witnesses today as to what is the security situation on the ground and whether we are putting our CDC and other personnel further in harm's way beyond the threat posed by the Ebola virus.

Finally, I would like to address the issue—and it was just raised by my good friend and colleague, Chairwoman Bass—there is some concern that assistance to the DR Congo used to combat Ebola will be cut based on the fact that our State Department has designated the DRC as a Tier 3 country in terms of human trafficking. I cer-

tainly hope that this is not the case, as it does not comport with the intent behind the legislation.

As the author of the Trafficking Victims Protection Act of 2000, the TVPA requires that we withhold non-humanitarian, non-trade-related foreign assistance to the government of Tier 3 countries, which means that the country does not fully comply with the minimum standards and is not making significant efforts to do so. I note that TVPA explicitly excludes humanitarian and trade-related assistance from any assistance cutoff. It further allows development assistance which directly addresses basic human needs which is not administered by the government. In other words, development assistance can flow via non-State entities to non-government organizations, including faith-based actors. Indeed, if one visits the eastern DRC—and I have visited it myself—one notices that health and education needs are met largely by faith-based entities, as the government and its institutions are viewed with a great deal of suspicion.

Moreover, Section 110(d)(4) of the TVPA vests the President with waiver authority with respect to non-humanitarian, non-trade-related foreign assistance when such assistance is in the national interest of the United States, such as seen in the prevention of the spread of Ebola. Further, the TVPA mandates that the President exercise such waiver authority, quote, "when necessary to avoid significant adverse effects on vulnerable populations, including women and children."

If there is any misunderstanding with respect to how this law should be interpreted or implemented, I know that the chairwoman and I would be very happy to meet with leaders of the Administration to discuss that.

I do want to note that, since Fiscal Year 2018, the American taxpayers have provided approximately $330 million in humanitarian assistance to the Democratic Republic of Congo and some $87 million in response to the Ebola crisis. I am further told that additional congressional notifications for the DRC will be forthcoming and look forward to receiving and reviewing those as well.

Thank you, Madam Chair, and I yield back.

Ms. BASS. Thank you very much.

Before I introduce the witnesses, I would just like to acknowledge a few people who are in the audience. This is a special day on the Hill when we acknowledge, celebrate, and lift up the hundreds of thousands of young people who are in the Nation's child welfare system. And so, for the first time—I have been doing this for years—but for the first time, three of our former foster youth are from the continent of Africa. One is from the Democratic Republic of the Congo, Ethiopia, and Kenya. And so, I want to acknowledge them for being here.

Raise your hands or stand up.

[Applause.]

Yes, thank you.

In support of the young people is a very famous actor who represents one of my favorite TV shows, Blackish, Marcus Scribner, who is here with his father, who is here supporting all of the foster youth.

[Applause.]

So, thank you very much for attending.

And now, to our panel. Admiral Ziemer is the Acting Assistant Administrator for the Bureau of Democracy, Conflict, and Humanitarian Assistance, at USAID. From April 2017 to July 2018, he was appointed by President Trump to be the Senior Director for Global Health Security and Biodefense at the National Security Council. And in June 2006, he was nominated by President Bush to lead the President's Malaria Initiative.

Dr. Robert Redfield is the Director for the Centers for Disease Control and Prevention. He has been a public health leader actively engaged in clinical research and clinical care of chronic human viral infections and infectious diseases, especially HIV, for more than 30 years. He made several important early contributions to the scientific understanding of HIV, and in addition to his research, he oversees an extensive clinical program providing HIV care and treatment in the Baltimore-Washington, DC. community.

Thank you very much today. And please, we would like to hear a summary of your testimony. We have your written testimony, but if you would present for 5 minutes, and then, we will have questions and answers by the panel.

STATEMENT OF TIM ZIEMER, ACTING ASSISTANT ADMINISTRATOR, UNITED STATES AGENCY FOR INTERNATIONAL DEVELOPMENT

Mr. ZIEMER. Chair Bass, Ranking Member Smith, members of the subcommittee, thank you for the opportunity to speak with you today about the United States Government's response to the ongoing Ebola outbreak.

Chair, you referenced the 2014 West Africa outbreak and the devastation and the impact that it had. The current outbreak in North Kivu and Ituri Province has just surpassed 2,020 cases. The situation is worsening and the numbers of cases will continue to rise.

Last month, I traveled to eastern DRC with a core team from USAID and CDC. I met with health teams, local community leaders, and our implementing partners. I saw firsthand the scale and complexity of this outbreak. I have traveled extensively in my career, from my three decades in the U.S. Navy and in the roles that I have had since. This trip to the DRC was one of the most sobering trips I have ever taken.

The scope of this biosecurity threat is changing and the risk of the virus leaping across the border to other countries is very high. This will further destabilize the region economically and heighten insecurity. In order to control this Ebola outbreak at its source, a fundamental shift and an immediate reset is necessary.

The ongoing violence and community distrust toward the response has been summarized by both of the opening statements. Armed group violence as well as deep-rooted community resistance has really kept the health teams from doing their critical health savings work and frequently results in the suspension of the response efforts.

In February, community members set fire to and destroyed the Katwa Ebola treatment unit. When I was there, we saw it restored.

The evening we left, one of the guards was killed in another recurring attack.

There have been over 70 security incidents this year alone. Cases have been accelerating in areas where the community members exhibit deep-rooted distrust of the central government and foreigners, as well as the people from other regions within the DRC. This widespread distrust has fueled misconceptions about the disease and deep suspicion regarding the motives of this sudden and dramatic international presence responding to Ebola. It is the feelings of the community that they are being exploited by this injection of cash. They refer to it as "the Ebola economy".

There is clear consensus among the stakeholders that we need to listen better to the communities, listen to what they are feeling, and that should and must inform the trajectory of how we can shift our response to this accelerated increase in cases. The outbreak is not just a public health crisis, it is an outbreak in the midst of a complex emergency. In order to contain this outbreak, a broader, more holistic humanitarian approach is needed.

Toward this end, USAID, supported by CDC, as the technical lead, is leading a whole-of-government response focusing on six key areas in order to bring this Ebola outbreak to an end. Let me just quickly review those six areas of focus.

First, we are working to improve coordination among the DRC government, WHO, and our international partners. I am pleased to say that over the last week to 10 days significant change is underway to accomplish that objective.

Second, we are emphasizing and addressing the paramount importance of community engagement and local ownership.

Third, we are working with the newly appointed U.N. Ebola Response Coordinator, Mr. David Gressly, to bolster security coordination through non-militarized humanitarian approaches.

Fourth, we are working with the CDC to implement operational improvements in the public health response, including a forward-leaning vaccine strategy.

Fifth, we are looking at enhancing the Ebola readiness in Goma and along the Goma-Butembo corridor as well as the four countries to the east.

Last, we are engaged in longer-term planning scenario for stabilization and development to address the root causes of fragility in the region.

This reset is building on the work of our USAID-funded partners that have been implementing key aspects of this public health response. Our partners have helped train 1,680 community health workers to conduct surveillance, strengthen infection prevention control measures in over 280 health facilities, reached 1.5 million people with health messages, and provided enough food to meet the needs of approximately 45,000 beneficiaries each month, and much more.

There is no silver bullet to end this outbreak, but I believe that an adaptable, whole-of-government response that capitalizes upon each agency's unique strengths and expertise will be successful in containing, controlling, and ultimately ending this outbreak.

I look forward to your questions.

[The prepared statement of Mr. Ziemer follows:]

Written Statement of Rear Admiral Tim Ziemer
Assistant Administrator, U.S. Bureau for Democracy, Conflict, and Humanitarian Assistance,
U.S. Agency for International Development
Before the House Foreign Affairs Subcommittee on Africa, Global Health, Global Human Rights, and International Organizations
June 4, 2019, 2 pm

Chairman Bass, Ranking Member Smith, members of the subcommittee, thank you for the opportunity to speak with you today about the U.S. response to the ongoing Ebola outbreak in the Democratic Republic of the Congo (DRC), and for your interest in this important issue.

Since August 2018, the DRC has been facing what is now an unprecedented Ebola outbreak in the country, with 1,954 confirmed and probable cases and 1,312 deaths as of May 30. It is the world's second largest recorded outbreak of the disease, eclipsed only by the 2014 West Africa outbreak that resulted in nearly 29,000 cases and killed more than 11,000 people.

Last month, I traveled to eastern DRC and saw the scale of this outbreak and the response firsthand. I have traveled extensively in my career, from my three decades with the U.S. Navy and in the roles I've held since. This trip to the DRC was one of the most important trips I have ever taken. I heard directly from local traditional and religious leaders, as well as our partners, about the challenges communities and response actors are facing. There continues to be ongoing violence and community distrust towards the response driven by years of political and humanitarian failures in the region. The U.S. Government has been working closely with the Government of the DRC, the World Health Organization (WHO), and other international partners to control the spread of disease since the outbreak began, and we're taking the concerns of our partners into account as we adapt our response. Bringing an end to this devastating outbreak is a top priority for the U.S. Government, because we are committed to reducing the suffering of those affected by Ebola, and because effective efforts to contain and end the outbreak can prevent it from reaching the broader region, as well as our borders.

This outbreak is not yet controlled. It has recently gotten worse, and it is expected to continue to expand. This significant increase in cases is extremely concerning, as it has wide geographic dispersion, and a high percentage of the new cases are unknown contacts and community deaths occurring outside of the health system. In response, the U.S. Government is aggressively adapting our strategies, and working with our interagency and international partners to help reset and redirect the response to stop the spread of the disease.

Overview of the DRC Ebola Outbreak

The Government of the DRC declared the current Ebola outbreak more than ten months ago, in North Kivu Province in eastern DRC. Within a short period of time, the virus had begun to spread through communities and eventually reached the city of Beni. Within two weeks, newly confirmed cases were being reported in neighboring Ituri Province. By mid-October, increased transmission in hospitals and health facilities led to a spike in cases in Beni, making it the new epicenter of the outbreak. In other areas, the virus continues to be transmitted quickly and has

now spread, with 22 health zones throughout North Kivu and Ituri provinces affected as of May 30—including Katwa and Butembo—which has proven to be a difficult environment to operate in due to physical attacks and threats against health care facilities and health workers, exacerbated by a high degree of community mistrust.

This outbreak is occurring in areas with ongoing fighting between armed groups, leading to access constraints and the intermittent suspension or modification of ongoing activities, including those of USAID partners. There have been multiple, persistent security incidents affecting response activities since the beginning of the year, including the armed group attack on a hospital in Butembo in April that killed a WHO staff member. In the week following my recent visit to the DRC, the Katwa Ebola treatment unit (ETU) was attacked—not for the first time—killing one guard, and a militia attacked a hotel in Butembo housing Ebola responders, killing several people and halting response operations for several days. Every day that health teams are absent from an outbreak area due to a security incident is a lost day of critical response activities that can save lives.

The outbreak is also spreading in an area with a long history of deeply-rooted community distrust of the central government, foreigners, and people from other regions in the DRC due to decades of neglect, exploitation, and violence. This widespread distrust has fueled misconceptions about the disease, including beliefs that Ebola was created to wipe out populations or extort money from people. In meetings during my visit with faith and community leaders, they spoke openly about feeling exploited by the "Ebola economy" and about their deep suspicion regarding the motives of the sudden and dramatic presence of outsiders responding to Ebola. This was a sobering reminder for me that communities do not trust the response. At times, community mistrust and resistance has exploded into violence against frontline workers .Engaging communities in the response is absolutely essential to gain the community acceptance necessary to control this outbreak and increase the effectiveness of contact tracing activities, vaccination campaigns, and other key response activities.

Complicating matters, the Ebola outbreak has been unfurling in the middle of a protracted humanitarian crisis in the DRC, where 12.8 million people are currently in need of assistance. While the DRC has faced nine previous Ebola outbreaks, this is the first outbreak occurring in areas like Ituri and North Kivu province that already suffer from chronic humanitarian needs—like food, safe drinking water, and shelter. Factors such poor infrastructure, forced recruitment into armed groups, and ongoing violence that reduces access to agricultural lands and markets have contributed to the deterioration of humanitarian conditions and triggered mass internal displacement and refugee outflows.

U.S. Government's Ebola Response

In September, following early assistance from USAID and the Centers for Disease Control and Prevention (CDC), the U.S. Government deployed a Disaster Assistance Response Team, or DART, to coordinate the United States' response to the Ebola outbreak in the DRC. This expert team—comprising disaster and health experts from USAID and CDC—is working tirelessly to identify needs and coordinate activities with partners on the ground. By augmenting ongoing efforts to prevent the spread of disease and by providing aid to help Ebola-affected communities,

the DART provides an efficient and effective operational and coordination structure to mount the U.S. Government response.

The DART, as the lead coordinator of the U.S. Government response in the DRC, is helping to oversee a whole-of-government response that is forward-leaning and flexible. USAID has experience responding to Ebola because we've responded to the deadly disease before. We are constantly adapting lessons learned to this challenging context. From 2014 to 2016, USAID deployed its expert DART to lead the U.S. response to the unprecedented Ebola epidemic in West Africa that killed more than 11,000 people. Our flexible strategy during that response allowed us to respond effectively to changing conditions as we learned more about the social aspects of the crisis. For the DRC Ebola response, and previous responses in the DRC, USAID is closely collaborating with our interagency partners—like CDC and the National Institutes of Health—along with the Government of the DRC, other donors, the World Health Organization, the U.N., international partners, and civil society to battle this disease.

The U.S. Government is working with partners, not only to provide vital assistance, but also redirect the response to overcome some of the key challenges I have noted today, which have made this outbreak difficult to contain. As such, the USG is supporting a multi-pronged approach to: (1) stop the spread of infection and provide vital care to Ebola patients; (2) support community outreach and education programs to dispel rumors and earn the trust of community members in areas affected by the disease; (3) enhance coordination with international and interagency partners; and (4) broaden the response to address communities' non-Ebola humanitarian needs in an effort to increase community trust that is so critical if we are to improve the effectiveness of our public health interventions. In addition, we are working to shift the response from a top-down approach to one that elevates the community's role and increases local acceptance and ownership of Ebola response activities.

Because stopping the spread of Ebola is a first step in ending the response, we've helped train 1,680 community health care workers to conduct surveillance, equipping them with knowledge and tools to gather the information needed to track the disease and stop the chains of transmission. We're also providing technical guidance and operational support to four teams to provide safe and dignified burials for people who have died from Ebola. Infected bodies are highly contagious. However, changing deeply- held cultural traditions —like washing the body before burial—during such an emotional time of loss has proved challenging. Some burial teams have even been physically attacked, hindering their ability to help families safely bury their dead. Our partners are working with community leaders to help encourage safe practices that can save lives, while also being respectful to the local culture. USAID is also strengthening infection prevention and control measures in more than 280 health facilities across at least 18 health zones by training nearly 3,000 health care workers in patient screening and isolation, appropriate waste management, and other practices that prevent disease transmission as well as enhancing triage and isolation infrastructure. USAID also has supported these partners with 53 metric tons of personal protective equipment at more than 100 health facilities, and our partners continue to provide treatment and care for those who have contracted Ebola to help increase their chances for survival. Additionally, USAID is providing enough food monthly to meet the needs of approximately 45,500 beneficiaries—including Ebola survivors, patients, contacts, family members, as well as frontline responders. Our assistance helps people grow or stay healthy and

allows potential contacts to stay put, as they won't need to travel to maintain livelihoods or get food.

Our experience with this outbreak so far, the West Africa Ebola outbreak, and other humanitarian emergencies has shown us that community acceptance and ownership is crucial to the success of this response. USAID is supporting partners to dispel rumors about the disease through community outreach—including by working with trusted community leaders—to increase acceptance of public health response activities. We've seen the impact of these efforts: At one meeting, one of our partners heard from young people, community leaders, and women, some of whom expressed concern about rumors that burial teams were harvesting organs from the deceased to use in illegal trade. Through presentation and discussion, our partner was able to dispel these rumors, and the community pledged support for Ebola prevention efforts and agreed to alert surveillance teams of possible cases. Another one of our partners is working to reach 500,000 households, or 1.5 million people, with key health messages to raise awareness about Ebola transmission. And another partner has created more than 90 radio pieces in three local languages that are being broadcast across more than 50 radio stations. USAID's partners are engaging with journalists, taking to the airwaves, creating mini movies, and organizing groups on the WhatsApp social messaging platform to educate people about Ebola and stimulate discussions. As many of our partners have been doing since the beginning of the outbreak, we are continuing to increase emphasis on community dialogue and actively looking to involve a wider cross-section of organizations, such as local women's, youth, and faith-based groups. To illustrate, USAID recently committed new funding to work directly with faith leaders in one of the affected areas. One of our partners, for example, is working with religious leaders to change their perspectives on Ebola-related rumors. Once trained, these local leaders then spread messages related to the response to help broaden community acceptance of the activities. In addition, our partners have hired local people—including Ebola survivors—to be a part of the response in their own communities. And, our partners are reaching out to respected local leaders to deliver Ebola prevention messages in local languages.

USAID's vast experience working with international organizations and other donor governments promotes coordination and efficient use of resources to save lives. We're applying our longstanding knowledge of the humanitarian system and the DRC context to guide improved international efforts and provide vital support to partners, so they can implement public health programs at a scale that will contain this outbreak. We're also drawing on the unique capabilities of our partners—like logistics support to move urgently needed supplies and personnel into the region.

For the past few years, USAID has been working closely with the U.S. Department of Health and Human Services—specifically CDC— and the U.S. Department of State to align and strengthen the U.S. Government's engagement with WHO. We've also been working alongside other donors to influence the response's overall strategic management. To illustrate, the United States joined other donor governments to advocate the DRC Ministry of Health to allow NGOs to have an increased role in Ebola sub-commissions, in order to improve coordination and the impact of programs in affected communities. In addition, we're encouraging other donors to contribute resources to this Ebola response effort, including countries that have already provided assistance.

Lastly, this Ebola outbreak is not just a public health crisis—it is an outbreak in the midst of a complex crisis demanding our full attention. It requires a holistic, broader humanitarian approach to more effectively address a crisis of this scale. This includes utilizing humanitarian response systems and partners that place community needs at the forefront of the response, as well as addressing other pressing-- and often long-standing community needs —we can increase the community acceptance essential for more effective public health interventions. We have been providing humanitarian assistance in the DRC for more than three decades, and are uniquely familiar with operating in this difficult context. Working with the international community to help meet the basic needs of already hard-hit communities may help reduce their suspicion of "outsiders" and bring more acceptance to the ongoing Ebola response, while taking this critical window of opportunity give them more security and stability.

There is no question that our interventions thus far have saved lives and prevented a much larger outbreak. There are countless people who have been spared from getting the disease because of the programs we've helped put into place. However, as noted above, the outbreak is ongoing and the U.S. Government should continue to help contain and control the outbreak. In addition to the troubling increase in weekly case numbers, it's becoming increasingly difficult to trace where these cases came from, and who may be at risk to fall ill next. While this has grown into a larger humanitarian crisis, we cannot lose focus on the critical health interventions on the ground, and we will continue to collaborate with the CDC and the WHO to adapt the response to address the myriad of challenges. . During my visit to the region, I saw firsthand how hard our partners are working--and how emotionally and mentally exhausted they are by their tireless efforts to bring this outbreak under control. Response groups on the ground care deeply for the people in eastern DRC, and they will continue to work to help them long after this outbreak is over.

Response Redirect and Reset

During my trip to the DRC it became clear that insecurity, poor coordination, underutilization of key NGOs and faith-based groups, and insufficient community engagement greatly hinder response efforts. This response is in need of a complete reset and redirect towards a more holistic humanitarian approach that responds to the broader needs of the community to help increase acceptance and ownership of the public health interventions. The U.S. Government has several recommendations for how we can do this:

First, we must do more to enhance response leadership and coordination. For example, we've recommended that the United Nations (UN) designate a high-level representative dedicated to lead a more holistic UN-led Ebola response. In response to our request, the UN appointed an Emergency Ebola Response Coordinator to coordinate the international response effort in support of the Government of the DRC -led response . The UN also recently initiated a system-wide scale up to mobilize additional resources to support this more holistic, broader humanitarian response. We are also working to support the new DRC Government's response lead, and will continue to push for an incident management system that unifies UN and government operations. The U.S. Government, along with other lead donors, also continues to advocate for the operationalization of civil society, faith-based organizations, and NGOs in coordination structures and the development a long-term strategic response plan . We are making gains on some of these strategic shifts.

Second, we must enhance community engagement. We know that community acceptance is the best form of security. As such, the USG is emphasizing enhancement of community engagement across the response—from the DRC Ministry of Health to WHO and USAID partners, many of which have been focusing on community engagement from the onset of the response. To increase community acceptance, we recommend addressing broader humanitarian needs by supporting quick-impact projects-- coordinating with other donors on long-term investments; improving utilization of community feedback; increasing local participation and ownership; and expanding NGO and civil participation in response coordination activities.

Third, there must be operational improvements in the public health response. This includes expanded vaccination coverage using the investigational Merck vaccine; improving surveillance of community deaths; pressing to reinstate the use of rapid diagnostic tests; expanding community-based surveillance; and implementing further training for frontline Ministry of Health workers in addition to other critical activities necessary to break chains of transmission.

We must also intensify response readiness in Goma and along the Goma-Butembo corridor, which is why the USG continues risk communication, community engagement, infection prevention and control, health care worker training, and other activities in this region. The United States will continue to address preparedness gaps and push for increased vaccinations among health care workers in high-risk areas surrounding the outbreak.

Next, it has become very clear that improved security for responders is needed. However, we must do so without greater militarization of the response. More armed security services have the potential to deepen community distrust . USAID will support a shift in security strategies by increasing the role of humanitarian security actors in analysis, advising, and communication -- similar to what we do in other complex emergencies .

Preparedness

In addition to stopping the spread of Ebola in the DRC, the U.S. Government is supporting Ebola preparedness efforts in at-risk neighboring countries: Burundi, Rwanda, South Sudan, and Uganda. These efforts are helping to strengthen local capacity to screen for Ebola at borders, detect cases if they occur, improve infection prevention and control practices in prioritized health facilities, and educate and engage communities, among other activities. While there have been no Ebola cases detected outside of the DRC during this outbreak, these efforts are vital to making sure the region is prepared for any potential advancement of the disease. USAID is also providing support to the DRC to bolster Ebola preparedness efforts in Goma, as well as in provinces adjacent to North Kivu and Ituri, to help ensure that the virus doesn't spread any further within the country.

Preparing for disease requires a whole-of-society approach across multiple sectors to prevent, detect, and respond to infectious disease threats. USAID has worked with CDC and interagency colleagues to implement the Global Health Security Agenda (GHSA), which was launched in 2014, to prevent and mitigate disease emergence and spread. The goal of GHSA is to build the

capacities and strengthen health systems to detect infectious disease events early, respond rapidly and effectively to new outbreaks, and to prevent avoidable outbreaks.

When crises happen—like the current Ebola outbreak—we also work to ensure response agencies have the tools and operational structures necessary to respond quickly and effectively. These is why, in 2017, USAID invested $35 million into operationalizing WHO's Health Emergencies Program and constantly work with other partners to make sure they are ready to respond.

USAID is also working to promote health security at the local level by helping at-risk communities develop preparedness plans and train community volunteers to detect and respond to infectious disease threats in their own neighborhoods. For example, we have developed an emergency supply chain playbook specially designed to build country capacity to quickly provide and manage essential emergency commodities, like personal protective equipment, that are critically needed during outbreaks. We are helping countries establish risk communication programs that provide communities with the information needed to reduce the spread of disease.

In our response to outbreaks like Ebola in the DRC, USAID will continue to work to help build the long-term capacity of countries to respond. This includes building health systems, training the health workforce, expanding the reach and effectiveness of community health workers and programs, establishing supply chains for essential health supplies, improving infection prevention and control in all health facilities, etc..

Conclusion

In conclusion, there is no silver bullet to stopping the DRC's tenth Ebola outbreak, but USAID and the U.S. Government are well equipped to help DRC and WHO respond to this disease and are currently pressing for a response reset to better adapt to key challenges on the ground. For the 2014-2016 West Africa response, our DART—together with our interagency and international partners, as well as the affected countries—helped bend the epidemiological curve in Liberia, Guinea, and Sierra Leone, and avert the worst-case scenarios initially predicted. In addition, because we have been providing humanitarian assistance in the DRC since 1984, we are familiar with the operating environment and access challenges and have long-standing experience coordinating with the DRC government, other donors, and partners during high-profile emergencies, and we're well-prepared to continue providing vital humanitarian aid.

However, we fully acknowledge that despite the lessons learned during the West Africa outbreak, this particular response poses difficult and unique challenges that will require us to be forward-leaning and flexible to continue adapting to changing conditions on the ground. While responding to this outbreak is complex, this is a whole-of-government response, making the most of each agency's knowledge and expertise. We are all united in the same goal of helping DRC and WHO to bring this outbreak under control as soon as possible and demonstrating our continued support for the people, families, and communities affected by this devastating disease.

Thank you for your time, and I look forward to answering your questions.

Ms. BASS. Dr. Redfield.

STATEMENT OF ROBERT REDFIELD, DIRECTOR, CENTERS FOR DISEASE CONTROL AND PREVENTION

Dr. REDFIELD. Good afternoon, Chair Bass, Ranking Member Smith, and members of the subcommittee. Thank you for the opportunity to update you on the Ebola outbreak in the DRC and outline what CDC is doing to prevent, detect, and respond to this and other emerging global health threats.

CDC's efforts are grounded in over 40 years of Ebola research and more than 20 Ebola outbreak responses. I want to emphasize that our goal is to end this outbreak as soon as possible.

When I visited Beni 2 weeks after the outbreak was declared last August, I saw firsthand the complexity of this urban Ebola outbreak. In March, I traveled back again to the outbreak zone, where I met with responders on the front lines. These trips further reinforced my understanding of the critical role that experienced technical leadership plays in the field.

This is the first urban outbreak in the DRC, occurring in densely populated areas that have experienced decades of conflict and civil unrest which continue today. The two currently affected provinces have never experienced an Ebola outbreak. They have busy, porous borders with Uganda, Rwanda, and South Sudan. These challenges make this outbreak extremely difficult.

As of this week, we have surpassed the grim milestone with now 2,020 cases, 1354 deaths occurring in 22 health zones. A significant percentage of these cases have actually been acquired in healthcare settings, including 109 healthcare workers. In the past 42 days, we have seen 668 active cases in 18 different health zones. Of these cases, less than a quarter were known contacts and monitored. Even more concerning, roughly 40 percent were community deaths that occurred outside the healthcare system.

Based on experience from previous outbreaks, an effective response demands early ascertainment and effective isolation of at least 70 percent of all cases and sustaining this for several months. The fact that we are seeing so many community deaths means that we are missing contacts. While no Ebola cases have been confirmed outside the DRC, this outbreak is not under control at this time.

CDC is working with the World Health Organization to support vaccination. Over 130,000 people in the DRC and surrounding countries have been vaccinated to date. Recently, WHO has recommended the expansion of vaccination strategies and an increase in vaccine supply to reach a greater number of individuals at risk for Ebola.

Over the course of this outbreak, CDC has deployed 184 experts to the DRC, neighboring countries, and the World Health Organization headquarters. Our work includes case recognition and contact tracing, infection control in the healthcare settings, safe burials, laboratory testing, border health, vaccination, and real-time data analysis to inform the response.

CDC also continues to provide direct assistance to the DRC Ministry of Health, both in Kinshasa and Goma, where the incident command is now located. The World Health Organization in Gene-

va and the U.S. Government response in the DRC are also enhancing preparedness efforts in the neighboring countries.

While this outbreak continues to be an urgent situation in the region, the current risk to America is low. The most effective way to protect America from emerging threats is to stop disease at their source before they reach our borders.

We have seen tremendous progress in the rapid disease detection and response. For example, this includes meningitis in Liberia, multidrug-resistant tuberculosis in India, and the rapid detection of yellow fever in Uganda, all a direct result of CDC's global health security investment.

CDC continues to improve the technical public health work force abroad. We have trained over 12,000 public health professionals now in 70 countries. More than 200 of these CDC-trained professionals are currently in the DRC. CDC continues to position our assets globally to quickly respond to the emerging health threats and disease hotspots.

Finally, I want to thank you for your continued commitment and support to CDC and our critical global health security mission. Thank you.

[The prepared statement of Dr. Redfield follows:]

Testimony before the

Committee on Foreign Affairs, Subcommittee on Africa, Global Human Rights, and International Organizations

United States House of Representatives

Eradicating Ebola: Building on Lessons Learned & Medical Advancements

Robert R. Redfield, M.D.

Director, Centers for Disease Control and Prevention,

U.S. Department of Health and Human Services

CDC
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INTRODUCTION

Good morning Chairwoman Bass, Ranking Member Smith, and members of the Subcommittee. I am Dr. Robert R. Redfield, Director of the Centers for Disease Control and Prevention (CDC). Thank you for the opportunity to testify before you on the Ebola outbreak in the Democratic Republic of the Congo (DRC), and thank you for your continued commitment to CDC's work in global health security.

Through collaboration within the interagency and with international partners, CDC is uniquely situated to help end this outbreak and ensure the health and security of Americans. We have comprehensive Ebola response capabilities developed over 40 years at the forefront of Ebola virus research and further refined by direct engagement in more than 20 Ebola outbreak responses. In the wake of the worst Ebola outbreak in history, the 2014-2016 West Africa outbreak that claimed over 11,000 lives, CDC has made significant advancements in Ebola science, surveillance, and response. For example, we confirmed that live Ebola virus can persist in specific body fluids, such as in seminal fluids, for over a year following infection. We have also trained epidemiologists and laboratory scientists, and provided testing materials for African countries at greatest risk of an Ebola outbreak. In addition, in June 2015 we established CDC's Global Rapid Response Team, a cadre of over 500 highly-trained CDC responders ready to deploy on short notice anywhere in the world to respond to global health emergencies.

In response to the current outbreak in the eastern DRC, as of May 29, CDC expert disease detectives and other staff have completed 265 deployments to the DRC, neighboring countries, and the World Health Organization (WHO) headquarters in Geneva to coordinate activities and provide expertise in surveillance, laboratory testing, data analytics, vaccine implementation, emergency management, infection prevention and control, health communications, and border health. Our operational expertise allows us to quickly and efficiently identify the unique scientific and social variables of outbreaks and address them with proven interventions.

However, the unique challenges of this Ebola outbreak mean this fight is even more difficult than past responses. The complex humanitarian context in North Kivu and Ituri provinces has severely limited CDC's direct

participation at the outbreak's epicenter, which is located far from the capital city of Kinshasa in an area threatened by armed conflict, crime, and civil unrest, as well as heavy cross-border movement. Violence in the impacted communities has hampered Ebola disease surveillance, contact tracing, and vaccination efforts. The affected population has low levels of trust in the government and the international community. The DRC is also experiencing other serious infectious disease outbreaks, such as cholera and malaria, further stressing its health system. Additionally, disease control in the impacted area is challenging because of weak healthcare and public health infrastructure.

I have visited DRC twice since the Ebola outbreak began – once in August 2018, before the security situation escalated, and then again in March 2019. I was able to see first-hand the work being done. I heard directly from our international partners on the ground how valued and desired CDC's contribution is, with their greatest request being expanded CDC technical leadership and expertise in the field. My visits reinforced for me the essential role CDC is uniquely positioned to play in supporting the Congolese to change the trajectory of this outbreak. The current outbreak is the largest and longest single country Ebola outbreak to date, with case counts continuing to increase and key response indicators moving in the wrong direction.

STATUS OF THE EPIDEMIC

On August 1, 2018, the DRC Ministry of Health and Population reported an outbreak of Ebola virus disease in North Kivu Province. As of May 29, 1954 cases have been reported, with 1314 deaths (a 67 percent fatality rate). Due to challenges in detecting and reporting posed by the security situation, CDC suspects the true number of cases could be much larger. As of May 29, cases have been reported in 22 health zones of North Kivu and Ituri provinces. To date, no cases of Ebola have been confirmed in any other provinces in the DRC or in any of the neighboring countries.

Past outbreaks of Ebola in the DRC typically occurred in sparsely-populated, rural areas. The current outbreak—like the 2014-2016 outbreak in West Africa—includes densely-populated urban areas, increasing the likelihood of human-to-human spread. The outbreak initially affected the Mandima health zone and then spread to the

town of Beni (315 cases), which has a municipal population of 340,000 and a greater area population of about one million. More recently the outbreak has been heavily affecting the adjacent North Kivu health zones of Katwa (589 cases) and Butembo (220 cases), which together also encompass an urban area with a population of approximately one million.

The security situation in the area remains very unstable; insurgents murdered a WHO epidemiologist on April 19 and set fires at multiple Ebola Treatment Units. Additionally, in recent weeks, there have been clear indications that the outbreak may be on the verge of entering a more dangerous phase, with significantly more rapid spread within the impacted region and potentially beyond it. Numbers of new cases have been steadily increasing, and fewer of these new cases are promptly entering effective medical isolation before they can infect others. Moreover, from May 7 to May 27, among the 326 new cases with contact information, 75 percent were either unknown contacts (not known as contacts of previous Ebola patients) or known contacts but not being followed by responders at the time of symptom onset.

STATUS OF RESPONSE EFFORTS

The Government of the Democratic Republic of Congo (DRC) is leading the response, with strong assistance from WHO. CDC is providing technical guidance to the DRC government, bordering countries, and partners, bringing to bear decades of experience, global health investments, and lessons learned in the West Africa Ebola response. For example, CDC has been instrumental in updating trainings on ring vaccination protocols, which strategically focus vaccination efforts on the contacts of cases and people who are in close contact with those contacts. All partners are working together toward one goal: to end this outbreak as soon as possible.

In August 2018, CDC and USAID briefly deployed Ebola experts to Beni for a few days, but they were pulled back due to security concerns. In the context of a December 2018 DRC presidential election, where several areas of the country experienced a deterioration in the overall security situation, the U.S. Department of State reduced the number of U.S. government personnel in Kinshasa by issuing a departure order on December 17, 2018. When the departure order was lifted on Jan. 31, CDC staff returned to DRC to directly support the DRC

government, WHO, and the integrated U.S. Disaster Assistance Response Team (DART) led by USAID with the emergency outbreak response. As of June 3, 11 CDC staff are in DRC in the capital of Kinshasa as well as the North Kivu provincial capital of Goma, which has become the DRC government's base of operations to respond to the outbreak. Goma is about 300 kilometers from the main outbreak area in Butembo, and is considered to be more secure. In March, two CDC staff deployed to the town of Bunia in Ituri Province for two weeks to assist with the investigation of a newly confirmed Ebola case. CDC made local responders aware that there may be unrecognized chains of transmission in Bunia, and CDC advised local Bunia staff to better standardize and share information across vaccination and contact tracing teams. CDC works closely with Embassy Kinshasa to ensure the safety of deployed personnel, and defers to the State Department to assess the security situation and determine access to the outbreak areas. While not currently operating out of Beni, Butembo, and other outbreak areas, CDC remains prepared to return when it is safe to do so.

CDC also has deployed staff to augment our country offices in the neighboring countries of Uganda, Rwanda, and South Sudan, which are preparing for the possibility of imported cases arriving from the DRC. From August 6, 2018 through May 29, 2019, 182 CDC staff have participated in a combined 265 deployments in response to the Ebola outbreak: 78 deployments to DRC; 76 to Geneva; 48 to Uganda; 38 to Rwanda; and 25 to South Sudan.

Risk Communications and Health Education

Given a demonstrated lack of community trust, disinformation about Ebola and the response, and community prioritization of violence reduction and long-term humanitarian concerns, it is imperative that we improve cooperation and engagement with local communities. CDC social and behavioral scientists have deployed to DRC, WHO headquarters, and several countries bordering the DRC to guide risk communication and community engagement strategies. Experts from CDC, WHO, the International Federation of Red Cross and Red Crescent Societies, and UNICEF have set a strategic direction for risk communication activities and produced a framework that has been shared widely with response partners in DRC. In late March, these partners met in Goma to reflect on what was working well and what could be done differently. While efforts are ongoing to improve risk

communication and community engagement, many in the field are spending much of their time responding to resistance to or refusal of Ebola interventions, instead of working to proactively engage communities. CDC is working with the DRC Ministry of Health and other partners to improve fundamental aspects of risk communication. In May, partners met to review messages and develop plans for improving the quality of community engagement activities across all partners as well as to support MOH's plans to activate community-based committees in the response. In addition, we continue to work with Red Cross to share feedback from communities, with an emphasis on incorporating community concerns and priorities into the response.

Contact Tracing

Contact tracing is the effort to find everyone who comes in contact, either directly or through contaminated materials, with a sick Ebola patient. Contacts are watched daily for signs of illness and if ill, are isolated before they can infect others. One missed contact who develops disease can keep the outbreak going. When a case is not known to be a contact, they are usually only identified in a late stage of illness and have spread the infection to others already. On May 28, a total of 17,728 out of 19,737 (90 percent) known contacts of people with Ebola were being followed. However, as noted earlier, among the new cases with contact information from May 7 to May 27, 75 percent were either unknown contacts or known but not followed at the time of symptom onset. The high proportion of cases that are not known contacts or lost to follow-up indicates that the quality of contact tracing must improve if the outbreak is to be contained; contact tracing efforts have been hindered by the volatile security situation. CDC designed "train-the-trainers" courses for frontline response workers, focusing on contact tracing methods. CDC also created an Ebola "Exposure Window Calculator" smartphone app for case investigators.

Infection Prevention and Control in Healthcare Settings

Healthcare settings have played an important role in amplifying transmission in this and many prior outbreaks. Implementing proper infection control and prevention practices is critical to stopping the spread of the virus within the healthcare delivery system and to the community. Prompt identification and isolation of patients

arriving at healthcare facilities with possible Ebola virus infection is essential so they may be safely evaluated and, if necessary, transported to an Ebola Treatment Unit for further care. Infected people who are not initially recognized to have Ebola may receive care at multiple facilities before Ebola is suspected, exposing numerous patients and healthcare workers to the virus. Unfortunately, patients are often arriving at the specialized Ebola Treatment Units late in their illness, and other healthcare facilities in the area are not necessarily prepared to effectively or safely care for Ebola patients. As of May 29, 107 local healthcare workers have contracted Ebola in the DRC. Within DRC, CDC is collaborating with WHO and Ministry of Health to improve the use of checklists, supervision and standard procedures for infection prevention and control across health facilities.

In the bordering countries of Uganda and Rwanda, CDC is providing assistance to response partners to improve the capacity of healthcare facilities to rapidly identify and isolate suspected Ebola cases, train personnel, and improve infection prevention and control. At least 150 healthcare personnel have been trained by CDC in Uganda and Rwanda since October 2018. Using information from interviews conducted at border crossings, refugee transit centers, and district health offices, CDC identified clinics and hospitals in border districts of neighboring countries that would be most likely to receive an imported case of Ebola from the outbreak area. CDC assessed triage practices at these facilities, interviewed and informed staff about risks of imported Ebola, and prioritized facilities for additional training and support.

Border Health

The two DRC provinces affected by this outbreak, North Kivu and Ituri, both border Uganda. North Kivu also borders Rwanda, and Ituri province touches South Sudan. There is significant population movement across these country borders. The Mpondwe Border Crossing is the busiest official ground crossing on the border between Uganda and the DRC, with a peak of 19,000 travelers passing through each day. At the Rubavu District Point of Entry between Goma, DRC and Gisenyi/Rubavu City, Rwanda, 60,000 people cross daily. This high volume, which includes pedestrian, commercial car, and truck traffic, poses significant concerns for potential cross-border transmission of infectious diseases. The WHO assesses that there is a very high risk of regional spread.

Preparedness activities in bordering countries are ongoing and CDC is providing technical assistance on their border health security efforts. Building on long-term in-country CDC presence as well as collaborations from the earlier 2018 outbreak, CDC is working with the DRC Ministry of Health and Population and other partners to adapt and implement screening protocols at country-prioritized airports and ground crossings, and to map population movement into and out of the outbreak zone to determine where surveillance and other public health interventions should be enhanced. As of May 29, over 61 million travelers have been screened at 80 priority ports and crossing points in the DRC since the outbreak began.

Vaccine Implementation

CDC conducted a clinical vaccine trial in Sierra Leone during the West Africa Ebola outbreak, enrolling and vaccinating nearly 8,000 healthcare and frontline workers. This and several other studies have provided evidence that the rVSV-ZEBOV (Merck) investigational vaccine is safe and protects against infection with the Ebola virus. While more scientific research is needed before the vaccine can be licensed, the vaccine is being used in the current outbreak, predominantly in a ring vaccination strategy that targets contacts of Ebola patients for vaccination as well as secondary and more recently tertiary contacts. WHO and the DRC Ministry of Health co-lead the vaccination effort, with CDC contributing expert advice. While security concerns have prevented CDC from participating in field activities, we have embedded CDC staff in the DRC Vaccine Commissions in Kinshasa and Goma to analyze data and improve the quality of ring vaccination efforts.

CDC has also collaborated with WHO colleagues in Rwanda, South Sudan, and Uganda to implement preventative vaccination among health care workers in geographic areas near the DRC border, and has provided technical assistance to these countries as they consider the use of Ebola vaccine. In addition, we have applied our expertise to update Ebola vaccination protocols, operating procedures, and training and communications materials for use at national and local levels, and facilitated trainings for national staff. Our work across multiple countries has helped standardize procedures and facilitate the use of best practices. As of May 28, over 126,500 individuals had been vaccinated in DRC. On May 7, the WHO Strategic Advisory Group of Experts (SAGE) on

Immunization published interim recommendations to expand Ebola vaccination strategies and address security concerns. Their recommended vaccination strategies include ring vaccination, using "pop-up vaccination" sites at a distance from the residences of contacts, and targeted geographic vaccination, where all Ebola patient contacts in a given village or neighborhood are identified and invited to receive vaccine at a more secure location. These SAGE recommendations also include alternative dosing to help ensure vaccine continues to be available as well as new use of a second investigational vaccine for those at a lower, but still present, risk of Ebola.

Responders have begun to offer broader geographically targeted vaccination in some high-risk areas, which could notably increase the rate of vaccine use. With these continued and expanded vaccination efforts we continue to underscore that strengthening implementation of basic public health measures, especially effective engagement and comprehensive identification of contacts, will be essential in conjunction with any vaccination strategy.

OUTLOOK OF THE EPIDEMIC

Broadly speaking, Ebola transmission can be stopped and the outbreak terminated when at least 70 percent of cases are effectively isolated after becoming ill; that is, moved to an Ebola Treatment Unit before they have infected anyone else, or have their contacts and secondary contacts fully vaccinated. This needs to be sustained for at least two to three months to end the outbreak. However, both the outbreak and the security situation on the ground has been getting worse in recent months and continues to be highly variable, so it is difficult to predict with certainty what will happen. Without significant and continued improvements, the DRC could be facing an epidemic that rapidly increases from the current 1945 cases within this calendar year; at that point, the possibility of the outbreak spreading to neighboring countries will significantly increase. CDC is committed to leveraging its resources and global health security expertise to help end the outbreak and prevent that.

RISK TO THE UNITED STATES

CDC understands that an international outbreak of Ebola puts the United States at risk and we appreciate the trust placed in CDC to keep Americans safe from public health threats both at home and abroad. At this time, we believe the direct risk to the United States remains low based on the travel volume and patterns from the outbreak areas to the United States and the implementation of border screening measures at key airports and ports in the DRC and neighboring countries. CDC recently helped organize exit screening workshops in Kinshasa and Goma to bolster screening efforts and prevent spread of disease. On average, of the approximately 325,000 air travelers arriving in the United States daily, about 43 travelers are from the DRC, largely from unaffected regions. CDC continues to implement routine border health security measures at U.S. Ports of Entry and has issued a Level 2 (Practice Enhanced Precautions) travel notice for the DRC. CDC has been in regular contact with the non-governmental organizations operating in the outbreak areas, and we provide monitoring and pre-departure health assessment recommendations for healthcare workers. Travel notices are designed to inform travelers and clinicians about current health issues related to specific international destinations, and range from Level 1 (Practice Usual Precautions) to Level 3 (Avoid Nonessential Travel). In addition, the U.S. Department of State has identified the outbreak area as a "do not travel" zone because of armed conflict, crime, and civil unrest. Current CDC guidance for managing Ebola cases in U.S. healthcare settings has been reviewed and provided to healthcare facilities as part of domestic preparedness efforts. CDC's Laboratory Response Network stands ready to perform testing on Ebola specimens should any need arise, with testing kits deployed across the United States.

BIG PICTURE: GLOBAL HEALTH SECURITY

The ongoing response to Ebola in DRC demonstrates CDC's continued commitment to strengthen global health security. CDC has been engaged in global health security work for over seven decades and is able to leverage the essential public health assets developed by notable initiatives like the U.S. President's Emergency Plan for AIDS Relief (PEPFAR), the President's Malaria Initiative, and global polio eradication to support core global health security programs and ensure the safety of Americans. With an understanding of the increasing threats posed by infectious diseases globally and in the context of the West Africa Ebola outbreak, CDC received $582

million in supplemental funding for a five-year effort in support of the Global Health Security Agenda (GHSA). GHSA was launched by a growing partnership of nations, international organizations, and non-governmental stakeholders in 2014 with a stated vision of a world safe and secure from global health threats posed by infectious diseases. Since GHSA's launch, CDC's global health security work has helped partner countries build and improve their public health system capacity. With CDC's support, partner countries were able to effectively contain meningitis in Liberia, Marburg virus in Uganda, multidrug-resistant tuberculosis in India, and vaccine-preventable diseases including measles and pertussis in Pakistan and diphtheria in Vietnam, among other threats across the globe. These outbreaks were stopped at their source, saving lives and reducing the amount of time it takes to effectively respond from months and weeks to days.

Support for global health security enables CDC to continue protecting Americans by detecting and preventing infectious disease threats before they reach our borders. We are seeing progress in the 17 priority countries where we have invested our global health security resources: all 17 have improved rapid response to disease threats through established or expanded public health workforce training of field-based epidemiologists, 13 have improved prevention of vaccine-preventable diseases through increased community immunization coverage, 15 have ensured effective public health emergency operation centers through training of emergency management officials, and 9 have increased their ability to identify country-prioritized pathogens through improved national laboratory testing capacity.

The DRC serves as an example of a country where CDC investments have built capacity since program operations began in 2002, including activities specifically to prepare for an Ebola outbreak. These efforts have also fostered strong relationships with the DRC and surrounding countries' ministries of health that have proved critical in times of crisis. The May 2018 outbreak of Ebola in the Equateur province of the DRC raised international concern due to logistical challenges caused by the large and remote area. That outbreak was ultimately limited to 53 cases and 29 deaths. The swift response, which included CDC and other U.S. government personnel in the field, ensured it was quickly controlled. Without a doubt, our global health security activities in the DRC enabled a faster, more effective and successful response to the May 2018 outbreak, and provide an important

foundation in the current Ebola response, even considering the complex security situation and special difficulties posed by this outbreak.

The DRC Field Epidemiology Training Program (FETP), developed with assistance from CDC and modeled after CDC's own training programs, has trained around 220 frontline and advanced disease detectives who are crucial to accurately detecting and identifying outbreaks. The DRC graduated its first cohort of FETP residents in 2015. These disease detectives are supporting the current Ebola outbreak and serve as an example of how CDC supports sustainable capacity development of countries to respond to outbreaks within their own borders. There are presently 49 FETP-trained staff deployed in at least seven outbreak health zones. Training programs like these work effectively because they are complemented by decades of field experience that CDC experts bring, teaching new epidemiologists how to rapidly identify diseases and respond effectively to prevent spread. CDC maintains long-standing collaborations in the DRC for priority diseases, including monkeypox virus response and prevention, building capacity and skills that have been beneficial for Ebola response. Sustainable investments, such as resources and expertise to train laboratory technicians, renovate and upgrade two laboratories, and establish a National Emergency Operations Center in the DRC, are all being leveraged in the current Ebola response.

Our global health security work is enhancing the world's ability to respond to other emerging health threats. More than 70 countries have an FETP program, resulting in more than 12,000 graduates around the world. In Liberia, improved laboratories, epidemiology training, surveillance, and surge capacity resulted in the identification of an April 2017 meningitis outbreak within one day of the first discovery of a case. By comparison, it took 90 days for the country to recognize the first Ebola case in 2014. The Uganda Virus Research Institute has emerged as a regional reference laboratory for viral hemorrhagic fevers thanks to collaboration with CDC and its subject matter experts. In addition, Uganda's Public Health Emergency Operations Center, established with CDC support in 2013, is a model for other global health security program countries. This center has been activated for over 75 outbreaks and public health events. Due to improved capacity, Uganda has detected 16 viral hemorrhagic fever outbreaks as of July 2018, and responded quickly to keep outbreaks small

and contained. They also detected a yellow fever outbreak in spring of 2016 in only four days, compared to over 40 days that it took to identify the yellow fever outbreak of 2010.

Another important component of CDC's global health work is the agency's ability to monitor threats globally and to provide rapid response through deployment of staff from across the agency. CDC's Global Emergency Alert and Response Service (GEARS) closely monitors 35 to 45 outbreaks a day through event-based surveillance and supports emergency deployments to respond to selected outbreaks. GEARS brings together the Global Disease Detection Operations Center (CDC's electronic surveillance analysis and response system for global threats) and the Global Rapid Response Team (GRRT). Since its inception, the GRRT has trained over 500 CDC personnel, who have provided nearly 22,000 person-days of response support.

As we saw during the West Africa Ebola epidemic, the current measles outbreak, and the Middle East Respiratory Syndrome (MERS) outbreak, infectious disease threats do not respect borders. An outbreak that starts in another country could hit our shores in a matter of hours; this is why CDC works globally to stop health threats before they enter the United States. CDC ensures our domestic preparedness by building global capacity in health security.

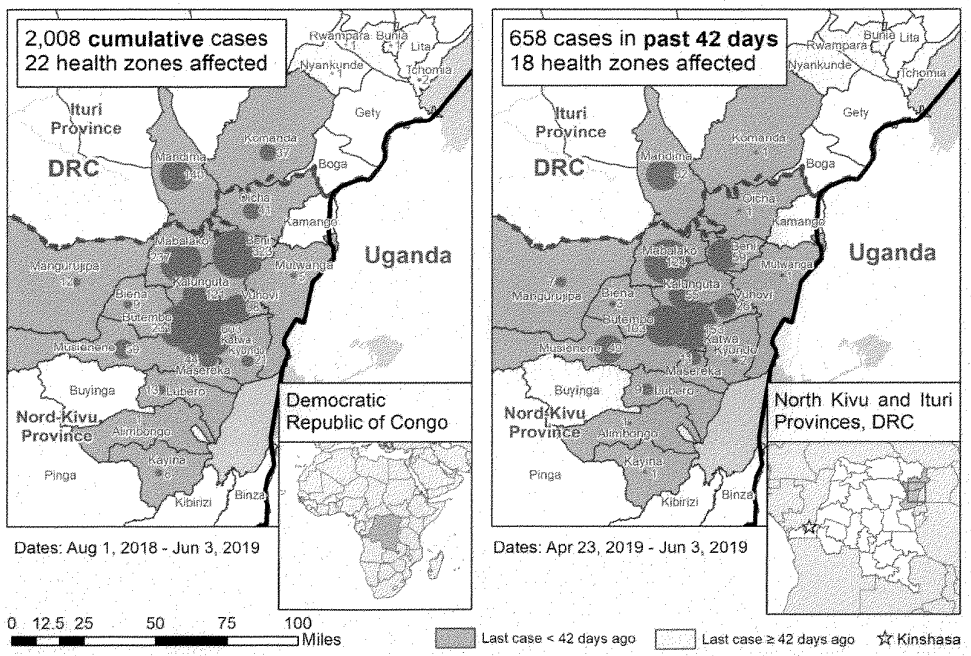
CONCLUSION

CDC's number one priority during any public health emergency is to save lives. CDC never loses sight of its primary mission to protect the health and safety of the American people, and we know that global health security is national security. CDC works overseas to ensure that health threats do not reach U.S. borders, most importantly by working to stop these threat outbreaks where they start. CDC works to protect the United States from direct health threats, protect U.S. interests in global economic security, and ensure that lessons learned overseas can be applied here to increase the strength of the U.S. public health system. While significant progress has been made, we know that we will continue to see the emergence of both known and unknown threats that will require the laboratory and surveillance infrastructure that CDC continues to support. The current Ebola outbreak remains a particular challenge for DRC and the global health community, and there are

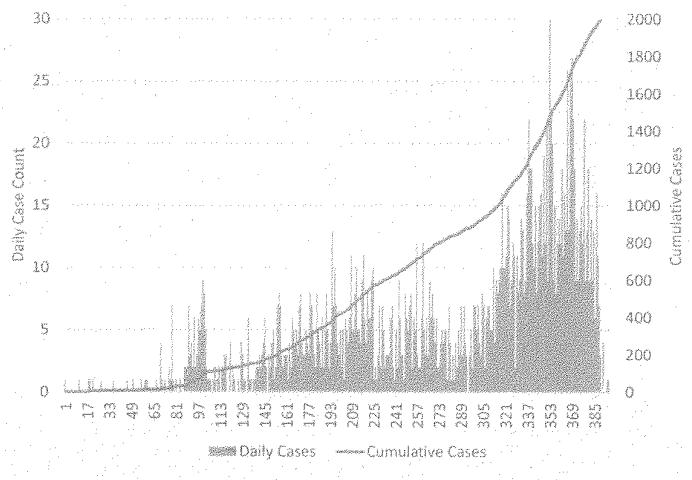
no signs that the outbreak is slowing. However, CDC's global health programs have allowed us to build strong working relationships with the DRC and surrounding countries' ministries of health, and we will continue to work with USAID and our sister agencies in the Department of Health and Human Services, as well as WHO and other international partners, until this outbreak comes to an end.

The ability to rapidly detect and effectively respond to threats to the public's health is a top priority for CDC. CDC works around the clock to not only ensure its readiness but the readiness of those on the front lines. CDC remains vigilant, because at any given moment, thousands of infectious diseases are circulating in the world. We don't know exactly which outbreak or potential pandemic threat is coming next, but we know it is coming. The work we do now ensures that, when the next major outbreak or pandemic threat does arrive, we are able to protect the health of Americans and save lives.

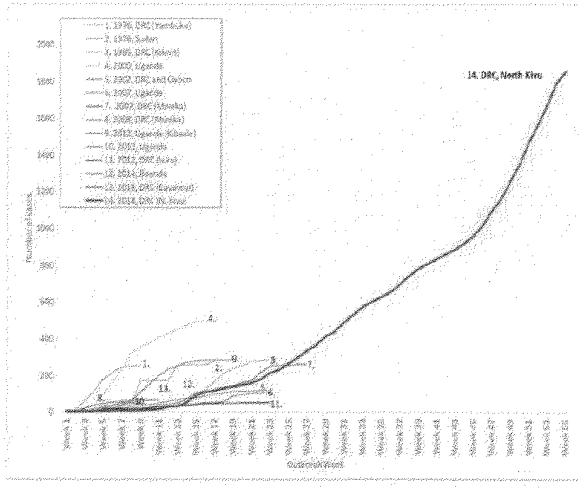
Number of Ebola Cases by Health Zone in DRC, 2018-2019



Ebola Case Counts in the DRC by Day (May, 2018 – June, 2019)



Comparison of the DRC outbreak with Historical Outbreaks (without West Africa)



Ms. BASS. Thank you very much.

I wanted to know if you could elaborate and explain a little bit about the differences in how people are responding to the epidemic. You remember when it started in Liberia and Guinea, there were challenges over traditional practices of how you deal with the dead. And that was one of the reasons why the outbreak was spreading, because it took a while to get people to break with their traditional practices of washing and preparing the body.

Here in the DRC you have the conflict where the workers are being attacked, and it is believed as though the disease is fake. And I just want to know if you can elaborate a little more on what is going on. Why on earth would people be attacking the facilities and the healthcare workers?

And then, I do not know if any of this is involved in the broader political situation in terms of the election that happened. The new President was here. He came and we met with him. When was it, Mr. Smith? It was maybe a couple of months ago that he was here.

And I was surprised because, when he was here, he requested essentially security assistance. I understand that there are security problems, but in the midst of an epidemic like this I was surprised by that request.

So, could you please explain your perspectives on why are the attacks happening? Why do not people understand that this is a real deadly disease?

Mr. ZIEMER. I think that is the question——

Ms. BASS. The microphone is not on. How about now?

Mr. ZIEMER. Yes, OK.

I think your question is exactly the question that we are trying to filter through. If you look at the three vectors, the virus, the security situation, and the community lack of cooperation, all three of those are going in the wrong direction. We know how to control the virus. We just get there and do what is needed in order to bring this under control, based on the previous experiences.

The last outbreak was in the Equateur Province. And with the DRC's response, complemented by the CDC, it was brought to a close. So, what is different in this region that would cause this deep-rooted response in the negative? Human behavior is driven by many——

Ms. BASS. But, I mean, I know that there is a lot of armed groups. I do not know if the armed groups are ideologically based, if they are ethnically based, if they, you know——

Mr. ZIEMER. Yes, there are over 60 to 70 armed groups with different motivations and different intent. They have undermined the communities' intents and welfare over the years.

My father knew a colleague who was killed in 1964, Dr. Paul Carlson, not too far from this area. There has been deep-rooted issues having to do with insecurity and lack of——

Ms. BASS. How is the new administration responding? How is the new administration in the DRC——

Mr. ZIEMER. You mean the President?

Ms. BASS. The new President, yes.

Mr. ZIEMER. Based on the feedback we are getting, President Tshisekedi represents a bright light. He has visited the area. It is something that his predecessor never did. We are hopeful that,

with that type of political support, with the efforts by the partners and the local responders, there might be an opportunity to start seeing a change in the receptivity of the community.

Ms. BASS. In terms of the waiver that our administration needs to provide, has that happened or are you under the belief that we have to hold back aid because of their involvement in human trafficking?

Mr. ZIEMER. Yes, the DRC has certainly been impacted by the TVPA restrictions, and we need to use all the tools.

Ms. BASS. Do you get a sense from the Trump administration that they are going to give a waiver to allow you to use all the tools you have?

Mr. ZIEMER. Chair, we are waiting to hear that. I would like to offer, though, that the current investment by USAID in this response has been unimpeded. We are using IDA money from the 2015 appropriation to invest and respond to this outbreak.

Ms. BASS. OK. Thank you.

Mr. Ranking Member.

Mr. SMITH. Thank you very much, Madam Chair.

If I could, one of the ways that the message got out during the crisis of Ebola in Sierra Leone and Liberia was with cell phones. And I am wondering, and I know we have an effort—I saw it in your testimony, Dr. Redfield—of getting that information out to key personnel.

Is there, generally speaking, an effort to get it to the public? Because, apparently, that was one way of getting that message out about how to keep yourself from getting contaminated or sick.

Second, what kind of security arrangements are being made for health workers? Is the President, for example—not ours; of course I am talking about the President of DRC—mustering a group of perhaps his best of the best to make sure that that situation, the risk to the workers and to the people, of course, is mitigated, if you could get to that as well?

I do have other questions. But you said 130,000 have been vaccinated to date. I wonder if you could just enlighten us, elaborate on whether the vaccination—how long when somebody gets it before protection kicks in? Is there enough vaccine available? Has anybody, including healthcare workers, gotten the disease after vaccination? How efficacious is it? Is it 100 percent, 90 percent?

And then, if you could, speak to the faith community. Obviously, there are many. And I have, when I have been there, met with a lot of the church leaders. They do wonderful work, but I am wondering if they are being fully brought into the messaging and the protection strategy.

You talked about training the trainers in your testimony, Dr. Redfield. Maybe you could elaborate a little bit on that as well. I think that is an excellent concept. Thank you for doing it. But maybe you could tell us a little more what you are doing.

And finally—and I do have other questions—what tools are not available in the toolbox that the Trafficking Victims Protection Act sanctions are precluding? My sense is—and I have spoken to many—so far, I do not know of any, but there may be and I am missing it. Again, that is where the waiver authority would come in to help meet this crisis head-on. But I am just wondering what

is not being done that would require an act of Congress or, again, a waiver by the President of the United States.

Mr. ZIEMER. On the security front, I think it is clear that the entire two-province area is insecure. I think what we are looking forward to is a positive shift with the appointment of David Gressly as the deputy for the U.N. Ebola response. He is being moved over from the MONUSCO, where he was the deputy responsible for the security forces. And so, his understanding of security in that area, as a very experienced African hand, will give us significant insight into how better to improve the security.

When I was there, I asked WHO what they needed most. They said security. When I asked the community workers what they needed most, they said less security. So, somehow we have to get in there and understand the dynamics, what the security requirements are. It is counterintuitive to move forward in an area where there is such variation in demand and how to move forward to provide the health care.

Let me just jump into what tools are in that toolkit to offset the TVPA. I would just say at this point it is clear that additional funding would complement the current outbreak response. It would be complementary. It would build capacity. Once we get a final ruling on that, we will see where we stand and we will press ahead.

Dr. REDFIELD. I think I can start with maybe the vaccine questions. Clearly, this is a great addition to our toolbox. It is not this outbreak, the vaccines—there are currently both unlicensed vaccines. The one that is currently being used is the Merck Sharp & Dohme vaccine.

As you have said, it has been to 130,000 individuals. The way it is being administered is, if you identify a case, then you find the contacts around that case. And then, you find the contacts of the contacts around that case, and you try to immunize everybody.

Operationally, this is not really going as effectively as we would like. If you look at cases that present, and then, ask the question, were they previously identified as a case, were they previously monitored, and were they previously vaccinated, currently, it is less than 20 percent. All right. And as I mentioned in my testimony, we are not going to get anywhere near effective control until we get this over 70 percent.

Vaccine supply is limited, and there is a need to accelerate that supply. Merck Sharp & Dohme is the current provider of it, and there is a need to increase that supply. There is an opportunity to do what we call split dosing to make the supply go further, which is currently being recommended. But we do need more vaccine for sure.

Mr. SMITH. Doctor, can you say how much more? I mean, how much more vaccine? How much are we lacking?

Dr. REDFIELD. Right now, there is about 145,000 doses of vaccine. As I mentioned to you, if you realize that we are only vaccinating about 20 percent of the people that we want to be vaccinating right now, you can see that there is a need substantially for more vaccine.

The other thing I would mention, that the new strategy is going to go beyond vaccinating contacts and contacts of contacts. We now actually want to vaccinate geographic areas where we cannot func-

tion because of the insecurity. Unfortunately, there is going to be a 6-to–12-month lag before there is adequate vaccine supply. So, we do project that we are going to run out of vaccine before we get adequate vaccine.

Mr. SMITH. If I could briefly on the vaccine issue, is it safe? Are there downsides to it?

Dr. REDFIELD. Again, it is a non-licensed vaccine.

Mr. SMITH. How long a shelf life is it?

Dr. REDFIELD. Yes. It is a non-licensed vaccine, but it should be licensed soon. The shelf life is fairly long, particularly in bulk. Clearly, the shelf life, once it is vialed, is also very reasonable, multiple years.

The truth is, not everybody that has been vaccinated, though, has been protected. There are breakthroughs. The estimated efficacy of the vaccine is, say, over 85 percent, but, again, that is not through any controlled clinical trial. That is just back-of-the-envelope efficacy. So, we do have cases in individuals that have been vaccinated, but I think there is significant evidence that this vaccine is impacting acquisition substantially.

And there is a suggestion—again, it is premature; the data is ongoing—that if you do get vaccinated and you, then, do get infected, that your clinical course may be more ameliorated. But, again, this is still, in the absence of controlled data, this is just what appears to be the observation.

Ms. BASS. Thank you.

Representative Wild.

Ms. WILD. Thank you, Madam Chairman.

Good afternoon.

Dr. Redfield, just following up on what you were just testifying about, what is split dosing? You made reference to split dosing.

Dr. REDFIELD. So, what that means is there is a normal dose that is currently administered. Rather than give a full dose, they are planning to give half a dose. Now it turns out that half a dose has been shown in the application to the FDA to give an adequate immune response. So, the FDA has looked at that. They do believe that that is going to be efficacious. And it is similar to the dose, it is actually even more than the dose that was used in West Africa in some of the efficacy trials. So, we do think there is substantial evidence that half of the dose is going to be effective.

Ms. WILD. And where is it being manufactured?

Dr. REDFIELD. Right now, the initial lot was manufactured at West Point in a production plant by Merck Sharp & Dohme. That plant was closed, and they have moved the production facility to Germany. That production facility currently is going through what we call validation lots to make sure that they can make the product effectively. And one of the recent validation lots did not validate. So, that is another reason. So, there are discussions about, our Secretary has had discussions about what can be done to try to look at ways that Merck might be able to accelerate vaccine availability.

Ms. WILD. And how close are we to having this vaccine ready for license and broad administration, would you say?

Dr. REDFIELD. My understanding from the FDA meetings that we have listened to their presentation, that we are just waiting for the

validation of the new plant. In other words, the clinical efficacy data, safety data, is there. It is just waiting to prove that the plant that is going to make the vaccine is validated to make it in a reliable way.

Ms. WILD. OK. And I want to switch gears with you, Dr. Redfield. In your written testimony, you indicate that in the last calendar year there were 1,954 reported cases and 1,314 deaths, which by my calculations is a 67 percent fatality rate. And you indicate that the number of cases is continuing to increase. I assume that accurate reporting of cases and tracing of contacts is essential. Is that fair to say?

Dr. REDFIELD. To get control of the epidemic, for sure.

Ms. WILD. OK. And one missed case or one missed opportunity to trace contacts can keep the outbreak going or cause it to spread. Fair enough, right?

Dr. REDFIELD. Right. Right.

Ms. WILD. So, my question to you is threefold. How accurate do you think those numbers are that are in your written testimony? I will ask all the questions, and then, you can address it. How accurate do you think those numbers are? Is there some kind of uniform infrastructure through which we count and track these diagnoses? And are medical examiners or coroners reluctant to report the cause of death?

Dr. REDFIELD. So, first is we are confident that the numbers underrepresent the outbreak. I think, first and foremost, I have tried to illustrate this late in the outbreak, where you see up to 40 percent of the individuals presenting as community deaths, there was no way for us to do contacts, contacts of contacts. Those people stayed in the community until they died.

The problem with Ebola is the infectivity goes up and up and up and up and up, as you get sick toward death. And probably one of the most infectious ways to transmit Ebola, as the chair mentioned in her comments, is through burial. And you wonder why we are seeing that this late in the game. Well, this region never experienced Ebola before. They do not understand Ebola.

How do we see this outbreak? Twenty-five percent of the people who got Ebola got it because they were sick and went to a hospital with something else, and then, got infected with Ebola when they went to the hospital. So, you argue we need infection control. In the last 21 days, we had 11 healthcare professionals come down with Ebola. So, we still do not have effective infectious control.

This really underscores, as you mentioned, we are not anywhere near getting 95 percent of those contacts identified and cases isolated. We are lucky to be 30 percent.

Ms. WILD. OK. I want to move on to one other thing real quickly before my time runs out, Admiral Ziemer. In 2015, after the Ebola outbreak ended in West Africa, then-President Obama created a Special National Security Council Team to oversee epidemic preparedness and response on a permanent basis. My understanding is you were the official lead in that team until the summer of 2018, is that right?

Mr. ZIEMER. Yes.

Ms. WILD. And does that Global Health Security and Biodefense Team even still exist today?

Mr. ZIEMER. Yes, it does. The office has changed at the NSC. The initiative is led by the State Department and supported by CDC and USAID. So, the mechanism, the strategy, and the commitment still exist.

Ms. WILD. And who leads it now?

Mr. ZIEMER. It is led through the NSC, but the State Department is the interagency lead.

Ms. WILD. Thank you.

Ms. BASS. Representative Wright.

Mr. WRIGHT. Thank you, Madam Chair.

And thank you, gentlemen, for being here.

As all of us know, Ebola and its potential for an international epidemic is very real for my home State of Texas and my home county of Tarrant County, which borders Dallas.

Back in 2014, Thomas Eric Duncan died from Ebola in Dallas after traveling there from Liberia. All of you know that story. And two of the nurses who provided treatment, Nina Pham and Amber Vinson, in Dallas were later diagnosed with Ebola and, thank God, survived.

Earlier in 2014, Dr. Kent Brantly, who completed his residency and fellowship in Fort Worth at John Peter Smith, our public hospital, contracted Ebola while serving as a medical missionary. You know that story as well. I got to visit with him in December 2014. He is a remarkable man, remarkable doctor.

So, the point is, we in the Dallas-Fort Worth area know probably better than any community that what happens in the DRC, what happens overseas, can happen here, and it can happen very quickly. When this happened back in 2014, it was like a bomb going off in the Dallas-Fort Worth area. My question is, what were the biggest lessons learned from that—and I will go with Dr. Redfield first—that are benefiting us now?

Dr. REDFIELD. Congressman, I think probably the most important lesson that we are operationalizing now is to really prepare particularly the bordering countries. We have been very fortunate, if there is any "fortunate" in this outbreak, in that it is a very remote area without significant air travel, without significant roads. This is why, as was discussed already by the chair, if or when this outbreak extends to Goma, which is the place of an airport, this could offer greater challenge.

Currently, we have really prepared South Sudan, Uganda, and Rwanda, and the Goma area, to be able to recognize these cases quickly, like we saw in Nigeria in the 2014 outbreak, and, if you will, shut them down, so there is not a lot of secondary transmission.

So, this border screening is really important. I think many people will be shocked when I say this. In this outbreak to date, we have screened over 58 million people. And you say to yourself, wait a minute, how did we screen 58 million people and we do not have cross-border or cross-region transmission yet? You know, you can think about that. I think it is really remarkable, to say the least.

But I do think that really recognizing how important preparedness is and border screening is at the source—this one comes back to my testimony for America. The best thing we can do is stop these epidemics at their source and to really focus on doing that.

So, I think that is the lesson I know we have all taken home. Preparedness is just not something to do casually. It is something to do very seriously.

Mr. WRIGHT. All right. And, Admiral, I had a followup for you. A while ago, you mentioned how people there feel exploited. Can you elaborate on that, exactly what that means, that they feel exploited by the Ebola economy, if you will?

Mr. ZIEMER. Congressman, I want to quote one of the community leaders that I interviewed. He said, "for years, we have been abandoned by our government. We have not been cared for. We have seen people die of malaria, cholera. Thousands of people have been killed, and we have been left on our own. And now, Ebola happens and you show up."

That point of communication spoke volumes to me. Ebola to them was more important to us than it was to them. We are there to contain it, to keep it from spreading, and we are rolling in with sophisticated interventions, committed people, and a significant amount of funding. They feel as though they have not benefited and that they are going to be abandoned as soon as the Ebola outbreak is contained. That is the message that we have got to listen to and move and try to encapsulate as we look at this very unstable area that borders some fairly significant countries.

Mr. WRIGHT. Right. Thank you very much.

I yield back.

Ms. WILD [presiding]. Representative Houlahan.

Ms. HOULAHAN. Thank you, Madam Chair.

Thank you very much for coming today.

I have a bit of a preamble before my question, so maybe a minute or so.

Women and girls are the two groups that are disproportionately affected by this outbreak. Women and women's groups also have the capacity to advance response activities through socialization and education in their communities. Yet, little outreach seems to be being done to this critical group.

According to a rapid assessment by the International Rescue Committee from March 2019, which is responding directly to this outbreak, preexisting gender norms expose women and girls to specific and increased risks during disease outbreaks. And during the current outbreak of Ebola in North Kivu in the DRC, health actors have seen a similar pattern to that that they saw in West Africa in 2014, with infection rates for women and girls fluctuating between 57 and 62 percent.

In addition, the IRC found that women and girls carry primary responsibility for caring for the sick and for managing household prevention. And this means that women and girls, and particularly adolescent girls, must increase the number of times they travel long distances by foot each day to fetch water. And this results in elevated risks of sexual violence and harassment.

So, here are my questions: Admiral Ziemer, what is being done to ensure that women and girls have access to services, both health, but also sexual and gender-based violence-related during this outbreak, if you can comment on that?

Mr. ZIEMER. Thanks for the question. I can say clearly that the interventions and the treatment are focused for all. There clearly

is a significant increase in children and women, and that is being noted and factored into our interventions.

Ms. HOULAHAN. And so, is there any sort of coordinated activity that specifically relates to the sexual violence of women and girls as it relates to exposure to the Ebola or as it relates to treating Ebola in that particular population? Is there any coordinated effort on that, that you are aware of, and should there be?

Mr. ZIEMER. Yes, there should be. I know our partners are looking at that specifically, and I will get back to you with specifics on that.

Ms. HOULAHAN. That would be wonderful.

And my next question is for either of you gentlemen. What lessons did you each or your organizations learn from the West Africa outbreak and how have they been applied to the DRC outbreak? And maybe specific to women and girls, if you are able to dive deeper into that.

Mr. ZIEMER. I will say the lessons learned from West Africa are significant. The ability to take all of those lessons and apply them has been interrupted by the community resistance and the security reality. OK? So, unfortunately, there is not a direct benefit from that, although we have learned a lot.

The other significant tool that has been brought in is the vaccine. The situation would look a lot worse if it had not been for the vaccine that Dr. Redfield has just summarized.

In terms of the programs' lessons learned, and dealing with women and girls in West Africa, and the transfer into the current two provinces, again, I will get back to you.

Ms. HOULAHAN. Thank you. I would really appreciate that.

And are there any efforts being made right now to codify or to think about lessons learned as we learn them now in the field, to be able to apply them in the future? Are we in the process of sort of having weekly conversations about what we have learned in this particular instance, so that we can use them in the future?

Mr. ZIEMER. Yes. I can commit to you that we will make sure that that is ongoing.

Ms. HOULAHAN. And finally, what kind of cultural barriers to educating the impacted communities have you encountered, and how are you experiencing the opportunity to apply best practices to the Congolese people? I know that you have spoken a lot about the resistance, and I completely can empathize and understand the situation. But have we found anything that is working to be able to convey to particularly women and girls, who are the caregivers and who are largely exposed to this, what lessons could be used to be able to make them safer?

Mr. ZIEMER. Yes, one of our primary partners is UNICEF. And I know they focus on that as a priority. We will followup on that, too, just to give you specifics on how UNICEF and our other partners are continuing to applying lessons learned so that we improve upon that particular issue.

Ms. HOULAHAN. I really appreciate your efforts on this. This is something that literally keeps me up at night. Biology and the concerns that come out of Africa and Asia are something that are very, very concerning, I think, and should be for all of us. So, thank you very much for your care.

I yield back.

Ms. WILD. Mr. Burchett.

Mr. BURCHETT. Thank you, Madam. Was I being called down for talking or was I being called on to speak?

[Laughter.]

Ms. WILD. Either.

Mr. BURCHETT. All right. I will go speak then. How about that? Thank you all for being here.

How does the armed conflict that is currently ongoing in the center of the outbreak affect the chance of the disease spreading across the border? And are those that are involved in this conflict, do they understand about and are they concerned with the spread of the disease? Because a lot of times it seems like education is the key and there always seems to be a disconnect.

Mr. ZIEMER. Yes, well, my immediate response is the armed conflict is characterized by armed resistance with armed individuals: the neighborhood gangs, basically the Mai-Mai which are thugs on hire. Then, we have community resistance that manifests itself in insecurity. All of this together is undermining our ability to do good health work.

What are we doing about it? I think we are continuing to talk to the community, get the community involved in determining what their perspective is, and their recommendations. But, clearly, the security environment has been unstable. It continues to destabilize the approach, and it is one of the priorities that we are looking at.

Mr. BURCHETT. Doctor?

Dr. REDFIELD. The comment I wanted to make, I have a slide I would like to just show you about what the impact of the armed conflict is, if she puts up the second slide. If you look at this second half of the slide, that red line, that is the current outbreak. All the lines you see before that, those are all the other outbreaks besides West Africa.

The insecurity has caused a lack of our ability to bring this outbreak to an end. You can see that most of these outbreaks are over in 4 months. All right. This outbreak now, if you go back to the time of initial symptoms, is really actually now over a year old, even though it was recognized in August, some of this.

And so, I want to emphasize, the magnitude of this outbreak is getting to the point that one has to anticipate that we are going to see spread outside of the outbreak area. And that is a direct result of the conflict blocking the ability for the public health response to take place.

Mr. BURCHETT. That is truly scary. This is not in my notes, but after seeing that, will it get to a point where it will just, because the host, I guess the folks that carry it would die, will it then decrease or will it just keep spreading?

Dr. REDFIELD. The problem is that, in the absence of effective public health response, you get a case. And then, that case leads to multiple other cases. And you can see the curve is changing. It is no longer linear. It is starting to get an arch to it.

Mr. BURCHETT. Yes.

Dr. REDFIELD. Whereas, you see all those other cases, the curve plateaus, and then, the outbreak stops. Right? This is a direct result of not having the ability to operationalize what we know how

to do; that is, a public health response that we have outlined in our testimony. And it is blocked because of the insecurity in the area.

Mr. ZIEMER. I would like to followup with one comment. That is the reality and it is very sobering. All the more reason that our prevention initiatives in South Sudan, Burundi, Uganda, and Rwanda are scaled up. As Dr. Redfield said, infection prevention, border security, and airport security are very, very important. The fact that we are focusing and scaling up prevention in Goma, which is 120 miles south of this outbreak, is a critical part of the strategy. To keep it from leaping the border and to keep it from going into Goma is part of this strategy while the health responders are working day-in and day-out to continue to address what is happening in Butembo and Katwa, and some of the other areas.

Mr. BURCHETT. This next question might have already been answered, but I would like a little clarification. The administration, how is their calibrating our response efforts in Fiscal Year 2020 request, given the continued spread of the outbreak?

Mr. ZIEMER. Congressman, I would say that that is being factored into the requests. We have just met recently with OMB. They know the requirements. I will keep you updated on how that goes.

Mr. BURCHETT. Thank you, Admiral.

I yield back the rest of my time, Chairlady. Thank you.

Ms. WILD. Mr. Phillips.

Mr. PHILLIPS. Thank you, Madam Chair.

My district, Minnesota's 3d District, is home to one of the largest Liberian communities in the country, as you might know. And in 2014–2015, of course, Ebola hit their country. And one of my extraordinary staffers in Minnesota, Decontee Sawyer, is a Liberian and her husband Patrick is one of the very first Americans to actually die of Ebola. So, I dedicate my questions today in his memory.

And it is sometimes difficult to connect foreign affairs, of course, to dinner tables in America, but there is no question that, if we do not help African nations stem the tide of Ebola, it surely will appear on our doorstep. So, I am grateful to both of you for the extraordinary work you do.

I believe Chairwoman Bass asked some similar questions earlier. But my first question is about the distrust of the international workers in the DRC. Some, of course, in the DRC believe that the Ebola outbreak was deliberately created and won't go to health facilities to seek care when they show symptoms. So, what specifically, very specifically relative to community engagement/education, is being done to educate and try to overcome that challenge?

Mr. ZIEMER. As we look at this reset that we are supporting as part of the U.S. Government whole-of-government response, the focus on the community is specifically being targeted. In addition to engaging more effectively with the communities themselves, certain projects are being identified. Some have to do with increasing opportunities for them to earn small projects in the community, be it infrastructure, be it wealth, just to see if we can benefit, and benefit them with small-scale infrastructure projects that will benefit the individuals as well as the community. That is step one.

As we look at other opportunities to engage, it is going to be a challenge first of all, to understand, but then to build credibility so

that the community itself can begin to own and collaborate with the health responders.

Mr. PHILLIPS. And if I can ask very specifically about it, so who are the gatekeepers in these communities and how is information conveyed? I mean, here it would be through social media. Is it through families and face-to-face? Is it through advertising? Is it through places of gathering? How do we try to communicate and overcome the disinformation?

Mr. ZIEMER. Yes, Congressman, it is all of the above: media, direct contact, face-to-face meetings. UNICEF is involved. CDC is involved with some of their community programs. Our partners are involved. That information is being collated and applied to improving community relations and building trust.

Mr. PHILLIPS. OK. Doctor, anything? Anything you wish to add?

Dr. REDFIELD. I think the complexity, Congressman, is that this is an area where distrust is really deep. When we went there, we thought, well, maybe we could meet with the leaders.

Mr. PHILLIPS. Right.

Dr. REDFIELD. Well, what leaders?

Mr. PHILLIPS. Exactly.

Dr. REDFIELD. There is actually well over 100 different small rebel groups. It is one thing to deal with the ADF. You can find their leader and you can talk to them. But this Mai-Mai is just a bunch of small groups with small leaders, and disinformation going back and forth. So, you get one group to have the right message, but, then, the other groups do not agree with the message because they do not trust that group. So, it is going to be a long haul to get trust in that area. We reached out to the religious community to do it, the bishop, and, again, they had a priest that was killed. And now, the bishops are being intimidated. So, this is a very, very complicated environment right now.

How to really build trust in that community that has been at war for 25 years is going to be very complicated, and it is going to take a long time. That is one of the reasons we are concerned. This reset is critical. We have got to get the community involved. We have got to figure out something on the security side. Both of those are not easy answers, how we are going to get either of them done.

Mr. PHILLIPS. And just a quick final question. Is the government in the DRC part of the problem or part of the solution?

Dr. REDFIELD. Well, I cannot comment, and I will go to the admiral to comment. Now, historically, this is an area that does not trust their own government. Now whether it is different with the new President, time will tell. But, historically, they did not trust their own government.

Mr. PHILLIPS. Right.

Admiral?

Mr. ZIEMER. I will just concur with what Dr. Redfield said. This community feels abandoned and has been abandoned, and it is going to take a long time for them to trust the government. The good news is that we have a different government. It is in transition. It remains to be seen, once the cabinet is appointed, how they will appropriately respond.

Mr. PHILLIPS. If I could just add, would you argue they might trust something from us, you know, with the American brand on it, as a source of information, more than their own government right now, relative to overcoming this?

Mr. ZIEMER. It is pretty hard to speculate who they might trust. I would say they would trust their local representatives more than anybody else.

Mr. PHILLIPS. OK.

Mr. ZIEMER. I think I did mention earlier that President Tshisekedi did take a trip out. This is the first time the President had been in that area for years.

Mr. PHILLIPS. Yes.

Mr. ZIEMER. That is a step.

Mr. PHILLIPS. Good. All right.

Thank you. I yield back.

Ms. WILD. In just a moment, I am going to yield additional time to Mr. Smith. But, before I do, I just want to ask a quick followup question to Dr. Redfield. It is my understanding that the World Health Organization has twice decided against declaring this outbreak as an international public health emergency, as it did for the Ebola epidemic in Liberia. First of all, is that correct?

Dr. REDFIELD. Yes, Congresswoman.

Ms. WILD. And if the World Health Organization did declare this an international emergency, would it help to increase the production of vaccine or other measures that could be taken that would help to get this under control?

Dr. REDFIELD. I think the WHO has made it clear—we were just at the World Health Assembly, and they made direct requests that we need to stimulate more vaccine production. The decision to do an international significance is really a WHO decision, a committee decision. Historically, they have stayed the pretty strong guidelines that they do that when there is cross-border transmission.

I will say that nothing about their decision to declare it or not declare it is impacting the United States' ability to respond. And it really, basically, is a consequence of their arbitrary guidelines that the committee has about calling it.

Ms. WILD. OK. Thank you.

With that, I yield additional time to Mr. Smith.

Mr. SMITH. Thank you very much, Madam Chair.

Admiral Ziemer, this is DRC's 10th outbreak of Ebola. Is there any evidence that anywhere else in DR Congo this hideous disease is manifesting?

Let me also ask you, in your testimony you talk about training some 1,680 community health workers to conduct surveillance, equipping them with knowledge and tools to gather information to track the disease. And then, you go on to say that we have trained nearly 3,000 healthcare workers in patient screening, isolation, appropriate waste management, and other practices to prevent disease transmission as well as enhancing triage and isolation infrastructure.

First of all, let me just say how grateful members of this committee are—I am certainly—for that Herculean response. It is amazing. I mean, we are taking the lead, as we do so often, as we have in the past. So, thank you for stepping up and doing it so

robustly. That is a lot of training, and maybe you could explain a little bit what that training entails. But I want to thank you for that, first and foremost, and you might want to speak a little bit further.

And, Dr. Redfield, you talk about CDC has designed a train-the-trainers course for front-line response workers on contact tracing methods; and, also, you have created an Ebola exposure window calculator smartphone app for case investigators. If you could provide us with some details on that? Again, we are talking about innovations, lessons learned, you know, the title of your testimony. CDC I think is really responding very aggressively and very effectively as well.

So, I think the good news story for every American, they know their taxpayers' dollars are being very aggressively deployed in a way that is most likely to mitigate this terrible outbreak. And as you said, Dr. Redfield, this complicating factor of insecurity has so exacerbated what could have been maybe even stopped months ago.

So, I think we would thank you, you know, a great big thank you for that work.

And if you could delve into some of those answers?

I did ask earlier about the use of cell phones. Maybe you wanted to speak to that, because we know in Liberia and Sierra Leona that cell phone messages were everywhere about what to do, and that really helped get the message out, which helped to contain the contagion.

Mr. ZIEMER. I am going to start with your last question on the cell phones. I know the cell phone technology in use is being brought into many, many different development and health programs. How it is specifically being applied here in these provinces, I will have to get back to you on that.

Mr. SMITH. All right.

Mr. ZIEMER. On the training, thanks. USAID and the U.S. Government recognize the need for training at all levels, basic education and health training. When we look at the global health security agenda, we look at capacity-building and health systems strengthening. It is all about the investment in training the healthcare workers. So, thanks for that recognition.

Mr. SMITH. Thank you.

Dr. REDFIELD. A couple of comments to talk about what you brought out. I am trying to read my note for the first one. I cannot read my own writing. That is not so good.

Ms. WILD. It is because you are a physician.

Dr. REDFIELD. But I am a doctor, OK? Yes, so I have some pass.

[Laughter.]

But I will start with the idea of communication. The challenge we have is not that people do not know that there is an Ebola outbreak. But I am telling you, people who get sick with Ebola, a lot of them are deciding to stay home and hide. I told you, 40 percent die. So, it is not just them that are hiding; it is their family members that are hiding. So, this distrust issue is beyond knowledge. It is really pretty something when you know you are sick, you likely have Ebola, you know your wife has Ebola, and you know there is a health facility there. You maybe trust it or not. And as I tell you, you basically stay home until you die. That is a big problem.

So, I think that is important. That is why I said it is going to take a long time. We are hopeful that we are going to get the word out because there is now four experimental therapeutics that NIH is doing in the clinical trial there of promising therapeutics, that Ebola is not the same death sentence as it was in the West Africa outbreak. But how can we start to get that information out to the community? It is actually an advantage for you to come forward and get treated, both in our ability to hydrate you properly, because we have learned how to do this better, and now that there is an opportunity to get some very new, promising, experimental therapeutics. So, that is really a key issue to do.

I will say, on training, our Field Epidemiology Training Program, which we have now over in seven countries, 70 countries, as I said, in the DRC it is our lifeline. We have got almost 200 individuals that have gone through what we call a 2-year epidemic investigator program, like we have in the United States.

When the western outbreak happened in the early spring, when I first became CDC Director, we were able to mobilize about 40 to 50 of those people, along with CDC, and that outbreak shut down in less than 60 days.

Now you have got the eastern outbreak. We were able to mobilize a lot of those individuals, but without the technical stewardship of the leadership of CDC to provide some ability to make sure what we said needed to be practiced is actually being practiced and reinforce it in the field, as driven by the insecurity.

We have started a Center of Excellence with the Minister of Health in Goma for Ebola. So, we are trying to really enhance and accelerate training the trainers, so that if we cannot be in the field, at least we can be training the people that can go in the field, and make sure we are increasing their skill sets more and more, and more and more. And that is currently ongoing in Goma. We will continue.

But I will say, our overall concept here is we are not planning a 3-month strategy or a 6-month strategy. We need to dig in and realize that this is going to be a 12-, 18-, 24-month strategy, and make the investment in those 12-, 24-month interventions, like building the center to train people how to really do better at Ebola in the North Kivu Province, like we are doing in Goma.

Mr. SMITH. Can I just ask you one final question? The 43 travelers that you mentioned per day that come to the United States from the DR Congo, and largely not from the affected areas, as you indicate, how much of a risk is that, and not just to us, but also to the African countries due to travel? How well-screened are they before they hop on an airplane or use some other mode of transportation?

Dr. REDFIELD. Right now, for the Congo, we do what we call Level 2 screening. We have our ports of entries alerted. As you mentioned, these individuals are not from areas where there is active transmission at this point. That said, we are still alerted to be able to start looking at travelers that are coming from the DRC.

As you mentioned, of the hundreds of thousands of travelers, we are very fortunate that not too many are coming from the Congo. I can tell you, from the North Kivu region, it is probably almost

reportable, you know, in terms of having travelers from there. It is just not in an area that has—travel is not part of their culture.

But I think if we do get into Goma, that is going to change. If we do get into some other parts of the DRC, Kinshasa, that is going to change.

Mr. SMITH. Again, thank you for your leadership. Thank you for the risks you take when you go there, and all the personnel that are deployed there from the United States, and other places. But, for those who do it, we all are very, very grateful.

I yield back.

Ms. WILD. Ms. Houlahan, I understand you have additional questions.

Ms. HOULAHAN. I do, and thank you, Madam Chair.

I just have had the opportunity on a different committee that I serve on to be doing a little bit more of a deep dive on the Mueller report on election interference; also, on a task force that I am participating on. And as a result of that deeper dive, I have had the opportunity to understand just how involved Russia was in the disinformation/misinformation with the AIDS outbreak in South Africa in the eighties, and deliberately sort of pointing the finger at the U.S. and our involvement, or lack thereof, in that particular outbreak.

And so, I guess my question to you is, as Russia and China are clearly rising on the continent of Africa and their influence is clearly rising again in that particular area, have you any concern? Have you seen anything that would indicate that there is any sort of campaign of disinformation against the United States specific about the rise of Ebola? Is that something that concerns you?

Mr. ZIEMER. Thanks for the question.

At this point, we have not seen any indication that there is any direct strategy or intent to undermine the issue. So, that has not been an issue for trying to get the Ebola outbreak under control.

Ms. HOULAHAN. Are you concerned at all about that, given the rise of Russia's strength? I think in the eighties they were significantly weakened, and that was a pretty weak attempt at disinformation. But do you have any concern that at this point in time it may become more strong?

Mr. ZIEMER. I think the awareness is very high. I think the concern is there. There are a number of agencies looking at that. The positioning, and the influence of China are priorities. To any extent that it might be involving or undermining our ability to respond better to this outbreak, we will get back to you on that.

Ms. HOULAHAN. Thank you.

Mr. ZIEMER. But I do not sense it.

Ms. HOULAHAN. Thank you. I appreciate it.

I yield back.

Ms. WILD. Mr. Phillips.

Mr. PHILLIPS. Thank you, Madam Chair.

Doctor, on a scale from 1 to 10, how well-prepared is the United States, God forbid, if we faced an Ebola outbreak or, for that matter, any other contagion on a national basis?

Dr. REDFIELD. The domestic footprint for dealing with cross-border cases that would come into the United States is one of the great benefits of the 2014. It is that we really have established a

system. Multiple hospitals now across the country have been firmly prepared ahead of time how to do this in an effective way, so we do not repeat some of the situations that happened in 2014.

I think, as I said in my testimony, at present the risk to our Nation directly is extremely low, just because of where this is. That may change if we get outbreaks, if it spreads into Goma or into Kinshasa or into Kampala, or something like that, if this sort of dwells on.

But we do have a very effective screening program now that we have developed, in a sense as a consequence of that 2014 experience. So, I do think we are very prepared here. This is why I come back and say—and I will say to you in general for our health security—the best thing this Nation can do to protect its self-security is detect, respond, and prevent these outbreaks where they start.

Mr. ZIEMER. Agree.

Mr. PHILLIPS. Is there anything that you would like to see us either provide resources for or improve strategically in the country?

Dr. REDFIELD. Well, I think that, as we do these emergency responses from CDC's perspective, unlike, say, my colleagues at USAID, there are some things that would enable us to be more efficient, more effective, more timely, you know, particularly the ability to have direct hiring authority for these emergencies. USAID has that. We do not have that.

Mr. PHILLIPS. OK.

Dr. REDFIELD. The same thing in terms of our ability to procure different items that we need to procure, so that we could have what we call our transactional authority, so that we can actually procure what we need when we need it.

Mr. PHILLIPS. OK.

Dr. REDFIELD. Those two things would be very helpful to CDC.

Mr. PHILLIPS. For supplies and——

Dr. REDFIELD. Yes, for supplies, and not go out to a million different people to try to get competitive bidding, when we need an emergency response. This would allow us to be much more effective, much more efficient in these responses. And it is something, as CDC Director, we would like to see that we have that ability for these emergency responses.

Mr. PHILLIPS. OK. Thank you.

Dr. REDFIELD. Yes.

Mr. PHILLIPS. I yield back.

Ms. WILD. The last area, I guess I get the last word. Actually, you get the last word on this. I am still highly concerned—and I think we all are—about the potential for travel to the United States. And I understand we are fortunate that at this point we have a low rate of travelers from the DRC, and that they are screened before they come here. But my understanding from, I think it was your written testimony, is that the incubation period can be as long as 21 days. So, presumably, somebody could be screened and not be showing any symptoms, is that right?

Dr. REDFIELD. They could be screened and not show symptoms at the time they are screened. But if they were from a high-risk area, then they would be put into a system to self-monitor for the development of a fever, similar to what we did in the 2014 outbreak——

Ms. WILD. OK.

Dr. REDFIELD [continuing]. Where the health departments will bring them into a system, let them self-monitor. If they do develop a symptom/fever, then, basically, they would get laboratory diagnosis, and then, be handled appropriately.

Ms. WILD. But that is dependent on accurate reporting, this self-monitoring system?

Dr. REDFIELD. Yes, I think the advantage we have, some of it is self-monitoring. The initial advantage is we do have the point of exit. So, we know individuals that are coming from the exit. It is not like, for example, if we were dealing with Middle East respiratory syndrome, where the real introduction might be someone shared a smoking lounge in London, but we would not have any understanding of that.

Here at least we know the areas that are at risk for their active transmission. Those individuals would be identified and screened as they came into this country. And then, they would be set up with the health department. Depending on different health departments would do it different ways, but most of the individuals do self-temperature assessment. They call them. They do have a temperature, yes/no, and followup there. I mean, it worked pretty effectively in the 2014 outbreak once it got operationalized.

Ms. WILD. Having said all of that, the need for containment is very much recognized by all of us here today.

I would like to thank both of you for your time on this very important subject, and also, to everyone who attended this hearing, as well as the members who attended and asked very good questions.

With that, this meeting is adjourned. Thank you.

[Whereupon, at 4:02 p.m., the subcommittee was adjourned.]

APPENDIX

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

Subcommittee on Africa, Global Health, Global Human Rights, and International Organizations
Karen Bass (D-CA), Chair

June 4, 2019

TO: MEMBERS OF THE COMMITTEE ON FOREIGN AFFAIRS

You are respectfully requested to attend an OPEN hearing of the Committee on Foreign Affairs, to be held by the Subcommittee on Africa, Global Health, Global Human Rights, and International Organizations in Room 2172 of the Rayburn House Office Building (and available live on the Committee website at https://foreignaffairs.house.gov/):

DATE: Tuesday, June 4, 2019

TIME: 2:00 p.m.

SUBJECT: Eradicating Ebola: Lessons Learned and Medical Advancements

WITNESS: Admiral Tim Ziemer
Acting Assistant Administrator
United States Agency for International Development

Dr. Robert Redfield
Director
Centers for Disease Control and Prevention

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.

COMMITTEE ON FOREIGN AFFAIRS

MINUTES OF SUBCOMMITTEE ON *Africa, Global Health, Global Human Rights, and International Organizations* HEARING

Day *Tuesday* **Date** *June 4, 2019* **Room** *2172*

Starting Time *2:40 pm* **Ending Time** *4:02 pm*

Recesses *0* (____to ____) (____to ____) (____to ____) (____to ____) (____to ____) (____to ____)

Presiding Member(s)

Rep. Karen Bass, Rep. Susan Wild

Check all of the following that apply:

Open Session ☑
Executive (closed) Session ☐
Televised ☑

Electronically Recorded (taped) ☑
Stenographic Record ☑

TITLE OF HEARING:

Eradicating Ebola: Lessons Learned and Medical Advancements

SUBCOMMITTEE MEMBERS PRESENT:

See attached.

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

N/A

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 *4:02 pm*

Naomia

Subcommittee Staff Associate

HOUSE COMMITTEE ON FOREIGN AFFAIRS

SUBCOMMITTEE ON AFRICA, GLOBAL HEALTH, GLOBAL HUMAN RIGHTS, AND INTERNATIONAL ORGANIZATIONS

COMMITTEE HEARING

PRESENT	*MEMBER*
X	Karen Bass, CA
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ADDITIONAL MATERIALS SUBMITTED FOR THE RECORD

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MEMORANDUM May 31, 2019

To: House Foreign Affairs Subcommittee on Africa, Global Health, Global Human Rights and International Organizations
Attention: Corey Holmes

From: Tiaji Salaam-Blyther, Specialist in Global Health, tsalaam@crs.loc.gov, 7-7677
Alexis Arieff, Specialist in African Affairs, aarieff@crs.loc.gov, 7-2459

Subject: **Hearing Memo: The Ebola Outbreak in the Democratic Republic of Congo**

This memorandum, containing information and questions on the ongoing Ebola outbreak in the Democratic Republic of Congo (DRC). Some content is drawn from and may be used in other CRS products or to respond to other congressional requests. Please contact the authors for any further assistance.

Introduction

On August 1, 2018, the World Health Organization (WHO) reported a new Ebola outbreak in eastern DRC, about a week after declaring that a separate outbreak had ended in the west of the country. The ongoing and expanding Ebola outbreak is the tenth on record in DRC, the largest to have occurred in the country, and is the second largest in history (**Figure 1** and **Figure A-1**). The outbreak is concentrated in North Kivu and Ituri provinces, where since the 1990s protracted conflicts have caused a long-running humanitarian crisis. As of October 2018 (before the outbreak had substantially spread), 4.3 million people were in need of humanitarian aid in the two provinces.[1]

The outbreak has also coincided with a fraught political transition process in DRC. A new president, parliament, and provincial-level assemblies and governors were elected between late December 2018 and early 2019, after two years of delays, political gridlock, and related violence and repression. Elections were held in the eastern cities of Beni and Butembo and surrounding areas at the epicenter of the outbreak in March 2019, months after the rest of the country had voted.[2] Tense negotiations between newly elected President Felix Tshisekedi (a former opposition figure) and ex-President Joseph Kabila (whose coalition won a large majority in parliament and at the provincial level) have delayed the formation of a government and complicated relations between the central government and provincial-level officials.[3]

[1] U.N. Office for the Coordination of Humanitarian Affairs (UNOCHA), *République Démocratique du Congo: Aperçu des besoins humanitaires, 2018*, October 2018.

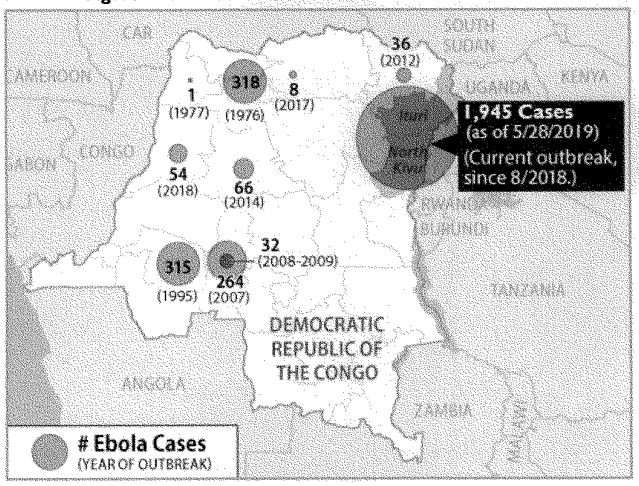
[2] Al Jazeera, "Protesters in DRC's Beni Target Ebola Centre Over Election Delay," December 17, 2018; and Associated Press, "Delayed Congo Legislative Vote Begins in Ebola-Hit Areas," March 31, 2019.

[3] See CRS Report R43166, *Democratic Republic of Congo: Background and U.S. Relations*.

(continued...)

President Tshisekedi has created an inter-ministerial coordination committee to oversee the DRC government's Ebola response efforts.[4] Minister of Health (MOH) Oly Kalenga is leading the health response, though it is widely expected that a new MOH will be named.

Figure 1. Documented Ebola Cases in DRC: 1976-2019



Source: CRS graphic; base map drawn from Esri (2016), data on outbreaks from WHO, Ebola Situation Reports homepage, accessed on May 29, 2019.

Notes: Borders are not necessarily authoritative.

The complex security environment in eastern DRC and community mistrust are hindering all aspects of outbreak control, and the virus is spreading at an accelerated rate (**Figure 2**). As of May 28, 2019, WHO reported a cumulative 1,945 Ebola cases, including 1,302 deaths.[5] On May 16, 2019, U.S. Agency for International Development (USAID) Acting Assistant Administrator for Africa Ramsey Day said in testimony before the House Foreign Affairs Committee that, "We should all be concerned about the Ebola outbreak in eastern DRC. It is not contained and it is not under control. This is no longer a public health crisis. It's a political challenge, as well as a development challenge."[6] USAID Administrator Mark Green said in testimony before the Senate two weeks earlier that, "when it comes to Ebola… the DRC setting is a labyrinth of challenges, poor governance, resentment toward community leaders. You have a failed democracy in many, many ways…. It will take more than simply a medical approach. It will take a development approach to try to tackle this terrible disease and to contain its outbreak."[7]

[4] *Actualité.CD*, "Ebola doit être vaincu le plus tôt (Tshisekedi)," April 27, 2019.

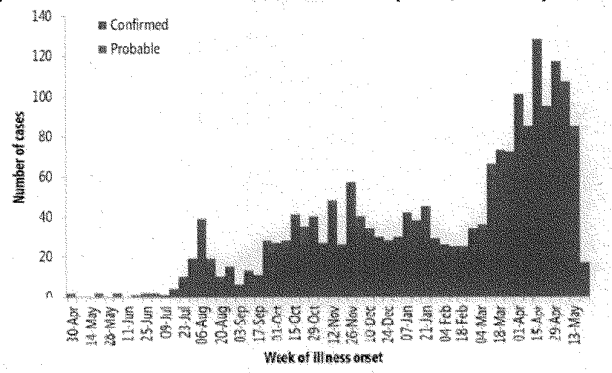
[5] WHO, Ebola Situation Reports homepage, accessed on May 29, 2019.

[6] House Foreign Affairs Committee, hearing, "Democracy, Development, and Defense: Rebalancing U.S.-Africa Policy," May 16, 2019; all transcripts via *CQ*.

[7] Senate Appropriations Subcommittee on State, Foreign Operations, and Related Programs, hearing, "Review of the FY2020 Budget Request for USAID," April 30, 2019.

Observers are concerned that the outbreak could spread to Goma—the capital of North Kivu—a city of over a million people serving as an operational hub for the U.N. Organization Stabilization Mission in the Democratic Republic of Congo (MONUSCO) and international relief efforts in DRC, as well as neighboring countries. While Uganda (which borders the most affected areas in DRC) has prior experience in Ebola control, Rwanda and Burundi do not. Minimal state capacity and protracted armed conflict in South Sudan and the Central African Republic suggest that a coordinated disease control response in either country could be highly challenging.

Figure 2. Confirmed and Probable Ebola Cases: April 30, 2019 - May 26, 2019



Source: WHO, *Ebola Virus Disease, Democratic Republic of Congo, External Situation Report 43*, May 28, 2019.

International Responses

The WHO is coordinating international Ebola control efforts with some 700 personnel deployed to the DRC. Ebola outbreak control protocol entails:

1) Infection prevention control (IPC) in health care facilities and protection of health workers;
2) Management and isolation of patients in specially constructed Ebola Treatment Centers (ETCs);
3) Fever surveillance with rapid diagnosis;
4) Tracing of those who have been in contact with an infected person, as well as their contacts; and
5) Community awareness and adherence to IPC protocols, education and support for safe patient and body transport systems, safe burials, and household/environmental decontamination.

Health workers are also using an investigational vaccine to counter the spread of disease (see **text box**). Confirmed Ebola cases are also being treated with experimental Ebola therapeutics in ETCs. As of May 28, 2019, over 500 patients had recovered and been discharged.[8] The WHO is also coordinating regional readiness exercises and assessments.

[8] WHO, *Press Conference on Ebola Disease Outbreak in the Democratic Republic of Congo*, May 28, 2019.

(continued...)

In February 2019, WHO called for $148 million to contain the outbreak within six months. As of May 19, 2019, $83.0 million had been pledged, which WHO has contended is sufficient to fund operations through the end of June 2019.[9] The organization indicated in a press conference, however, that several donors pledged during the May 2019 World Health Assembly to provide additional financial support to ensure continuity of operations.[10] Information on U.S. funding is included in "Outlook".

Available Vaccinations and Current Vaccination Strategy

There is no licensed vaccine to protect people from Ebola. During the 2014-2016 West Africa Ebola outbreak, Ebola responders deployed an experimental vaccine, rVSV-ZEBOV-GP (produced by Merck), to control the outbreak. The experimental vaccine is the only one that has demonstrated clinical efficacy and effectiveness against the Zaire strain of Ebola, the source of the current and West African outbreaks. Three other vaccine candidates are in advanced stages of clinical evaluation or are licensed solely in their countries of origin. These include, Ad5-EBOV, licensed in China, and GamEvac-Combi, licensed in Russia. The third vaccine candidate (Ad26.ZEBOV/MVA-BN), developed by Janssen Pharmaceuticals (a subsidiary of Johnson & Johnson) and Bavarian Nordic, is expected to be submitted for approval to the U.S. Food and Drug Administration (FDA) and, as of May 7, 2019, plans by WHO to assess the deployment of the vaccine were "at the advanced stage".[11]

During the 2014-2016 Ebola outbreak, health workers deployed a "ring vaccination" strategy for the first time. This entails vaccinating those who have come in contact with a known Ebola case as well as their contacts. Health workers attempted to use the strategy in the current outbreak, but high population mobility, suboptimal IPC practices in health clinics, gaps in rapid diagnosis and isolation of Ebola-infected individuals, and resistance to Ebola control efforts by some communities limited the effectiveness of the strategy.

In February 2019, the WHO Strategic Advisory Group of Experts (SAGE) noted the "exceptional circumstances" of the DRC outbreak and recommended adding geographic targeted vaccination to the ring vaccination strategy. Geographic targeted vaccination entails vaccinating residents in the geographic area immediately surrounding an Ebola case, such as a village or neighborhood. The SAGE also recommended that "consideration is given to the use of any of [the three] new vaccines to vaccinate health care workers and frontline workers in the neighboring areas where there is a possibility of spread." If a confirmed Ebola case is observed, however, guidance indicates the rVSV-ZEBOV-GP vaccine must be used for a ring or geographic targeted vaccination in preference to the new vaccine candidates. U.S. officials and other health experts had been urging the WHO to undertake a "much more aggressive vaccine strategy."[12] In May 2019, the WHO SAGE recommended additional adjustments to the vaccine strategy, including:

- using "pop-up" vaccination approaches to make the vaccination process faster, more secure, and more responsive to community feedback;
- streamlining implementation of the vaccination protocol;
- modifying follow-up for safety monitoring; and
- adjusting the dose of the vaccine to ensure vaccine availability (primary and secondary contacts should receive one-half the previously used dose and tertiary contacts would receive 1/5 of the previously used dose).

As of May 25, 2019, almost 125,000 people had been vaccinated, including 31,000 health workers (HWs) and front-line workers (FLWs) in the outbreak zone and over 8,5,00 HWs and FLWs in South Sudan, Uganda, and Rwanda.[13] Plans are underway to vaccinate HWs and FLWs in Burundi.

[9] Ibid and WHO, *RD Congo – Ituri et Nord-Kivu: Tableau de bord de l'etat de la riposte de la MVE (Semaine 20: due 13 au 19 mai 2019)*, May 23, 2019.

[10] WHO, *Press Conference on Ebola Disease Outbreak in the Democratic Republic of Congo*, May 28, 2019.

[11] WHO, *WHO Adapts Ebola Vaccination Strategy in the Democratic Republic of the Congo to Account for Insecurity and Community Feedback*," News Release, May 7, 2019.

[12] USAID Administrator Green testimony before the Senate Appropriations Subcommittee, April 30, 2019, op. cit.

[13] WHO, *Ebola Virus Disease, Democratic Republic of Congo, External Situation Report 43*, May 28, 2019, pp. 7 and 8.

(continued...)

On May 23, 2019, the WHO announced that the United Nations (UN) Secretary-General had established a coordination and support mechanism in the epicenter of the outbreak in Butembo.[14] The Deputy UN Special Representative of the Secretary-General for MONUSCO David Gressly has been appointed the UN Emergency Ebola Response Coordinator in the DRC. As the Ebola Response Coordinator, Mr. Gressly will lead the new UN-wide operation to strengthen political engagement and operational support for:

- improving access to communities;
- increasing support for humanitarian coordination; and
- bolstering preparedness and readiness planning for the DRC and surrounding countries.

The UN-wide response is intended to overcome operating constraints caused by insecurity and political protests and to move "senior leadership and operational decision making to the epicenter of the epidemic in Butembo."[15]

U.S. Responses

When the outbreak began, USAID and the U.S. Centers for Disease Control and Prevention (CDC) deployed staff to DRC and the region. In October 2018, deployed a Disaster Assistance Response Team (DART) to coordinate the U.S. government response in support of the DRC Ministry of Health (MoH), WHO, and other international partners. More broadly, the United States is the top bilateral humanitarian donor to DRC and the top financial contributor to the U.N. peacekeeping operation (MONUSCO) there, which has provided "life-saving logistics support to the Ebola response" in the east, according to U.S. officials.[16] USAID Administrator Green testified before Congress in April 2019 that, "there is sufficient money for fighting Ebola in DRC," asserting that other challenges, not primarily financial limitations, had stymied containment efforts.[17] Information on U.S. funding is included in "Outlook".

U.S. personnel are providing technical support from Kinshasa, Goma (which was elevated as a response hub in early 2019), and neighboring Rwanda and Uganda, while implementing partners (U.N. agencies and nog-governmental organizations, NGOs) are administering Ebola control efforts with U.S. resources. The Administration has placed strict constraints on the movement of U.S. personnel to and within affected areas due to security threats. ***Sensitive but unclassified (SBU):*** As of May 10, 2019, almost 300 US Government personnel were deployed for Ebola response efforts.[18] In September 2018, USAID and CDC withdrew their personnel from the outbreak zone pursuant to security concerns, despite CDC's stated preference to maintain staff in the field.[19]

Key examples of U.S. support for outbreak control includes the following:

USAID is providing grant funding to NGOs and U.N. agencies carrying out Ebola response and preparedness activities, drawing on International Disaster Assistance (IDA) funds. USAID funds are

[14] WHO, *United Nations Strengthens Ebola Response in Democratic Republic of the Congo*, press statement, May 23, 2019.

[15] WHO, *United Nations Strengthens Ebola Response in Democratic Republic of the Congo*, press statement, May 23, 2019.

[16] USUN, "Remarks at a UN Security Council Briefing on the Situation Concerning the Democratic Republic of the Congo," October 11, 2018.

[17] House Foreign Affairs Committee, hearing, "FY2020 Foreign Assistance Budget and Policy Priorities," April 9, 2019.

[18] ***SBU***. CRS correspondence with USAID on April 9, 2019. Personnel include USAID (61), CDC (175), and National Institutes of Health (41).

[19] *STAT*, "CDC Director Says He Pushed to Keep U.S. Experts in Ebola Zone But Was Overruled," October 23, 2018.

(continued...)

supporting disease surveillance, infection protection and control, risk communication and community engagement, safe and dignified burials, water and sanitation aid, and pre-positioning of medical supplies.

CDC personnel are providing direct technical support to the MoH, WHO, and the DART for disease surveillance, contact tracing, data management, infection protection and control, risk communication and community engagement, laboratory strengthening, emergency management, and surveillance at points of entry. CDC staff are also supporting Ebola preparedness efforts in Rwanda, Uganda, and South Sudan. The White House stated as of May 9 that CDC had "rostered" over 500 personnel, including staff who have deployed to Democratic Republic of Congo, surrounding countries, and WHO headquarters to assist with the response, and who had provided "nearly 17,000 person days of support for response activities" to date.[20]

Department of Defense has supplied laboratory training to Ugandan researchers and has partnered with them to conduct clinical Ebola vaccine trials.

U.S. Aid Restrictions for Trafficking in Persons. DRC is currently ranked as "Tier III" (worst) under the Trafficking Victims Protection Act (TVPA, P.L. 106-386, as amended), which may trigger prohibitions on certain aid, absent a full or partial presidential waiver. For FY2018, President Trump partially waived these restrictions for DRC, as the prior Administration had done, but did not do so for FY2019.[21] Thus, pursuant to the TVPA, no "non-humanitarian, non-trade-related" assistance may be provided in DRC.[22] In principle, this means a prohibition on certain economic and security assistance implemented by, or in coordination with, the DRC government.

The Administration has not publicly detailed which programs are affected under its interpretation of the restrictions, but it appears to consider, at a minimum, most development assistance not directly related to emergency health programs to be subject to the TVPA prohibitions. In the Senate, the Ebola Eradication Act of 2019 would authorize the USAID Administrator to provide assistance for Ebola control efforts including for programs "intended to lower community resistance to interventions," "notwithstanding any other provision of law."[23]

Selected Challenges

Insecurity. The WHO contends that large-scale violence is the primary factor inhibiting Ebola control in northeastern Congo. WHO officials have urged broader international support for "political mediation, engagement with opposition, and negotiated solutions," and have asserted that "[j]ust purely focusing on community engagement and participation will not fix what are deep seated political issues that need to be addressed at a higher level."[24] Dozens of armed groups are active in the areas most heavily affected by the outbreak, including the Allied Democratic Forces (ADF), a nebulous organization implicated in attacks on U.N. peacekeepers, local military forces, and civilians. In April 2019, the Islamic State claimed responsibility for an attack on local soldiers attributed to the ADF, the latest in a series of signs of emerging ties between the two organizations.[25] Elements of the state security forces reportedly maintain

[20] White House, "Senior Administration Officials Hold Background Teleconference Briefing on Global Health Security Strategy," May 9, 2019.

[21] Presidential Determination No. 2017-15, September 30, 2017

[22] The term "non-humanitarian, non-trade-related foreign assistance" is defined under 22 U.S.C. 7102(8).

[23] The text of the bill, reported out of the Senate Foreign Relations Committee on May 22, 2019, is at: https://www.foreign.senate.gov/imo/media/doc/DRC%20Ebola%20bill.pdf.

[24] WHO, *Press Conference on Ebola Disease Outbreak in the Democratic Republic of Congo*, May 28, 2019.

[25] See CRS Report R43166, *Democratic Republic of Congo: Background and U.S. Relations* for background on the ADF, and on security conditions in eastern DRC more broadly.

(continued...)

ties with armed groups and have been implicated in serious abuses. Road travel is often dangerous, with frequent reports of militia attacks, armed robbery, and kidnappings.

Security threats have hampered response efforts by forcing temporary cessation of Ebola case management, interrupting contact tracing, and frustrating surveillance efforts in high transmission areas. Local mistrust of government officials and outsiders (including Congolese who are not from the immediate area) has prompted some community resistance to Ebola control efforts and led to attacks on health workers and health facilities, including Ebola treatment centers. According to WHO, there have been 174 healthcare related attacks either on workers or facilities, which have resulted in five deaths and 51 injuries of health workers and patients.[26] WHO has expressed concern about the increased violence in the area and reports that between January 2019 and May 2019, security incidents increased three-fold as compared to the previous five-month period.[27] This violence has placed additional pressure on WHO and local personnel, as most implementing partners have been removed from the epicenter. As of May 5, 2019, 23 vaccination teams were operating in the country, comprised of 326 Congolese and 43 Guinean/African health workers.[28]

Health System Constraints. The WHO reports that Ebola transmission is likely occurring in ill-equipped and understaffed health facilities. Inconsistent adherence to infection prevention and control, periodic disruptions in supply chain systems, and limited access to water for handwashing in some health facilities has complicated Ebola control efforts. In addition, some health workers are refusing to wear personal protective equipment in health facilities or perform rudimentary infection prevention and control measures due to threats of violence by some members of the community.[29] As of May 26, 2019, 105 health workers had contracted Ebola, 34 of whom died.[30] The MoH, WHO, and other partners have identified health facilities of concern and are addressing lapses around triage, case detection, and infection prevention and control.

The WHO and implementing partners have also been working to reduce community deaths (all Ebola deaths outside of an ETC/TC, including at home and within hospitals and other health centers). The proportion of deaths that occurred in the community has fluctuated on a weekly basis and averaged 40% during the week of May 7-14, 2019, after peaking at 71% in February.[31] Inadequate access to Ebola treatment centers and hesitation by some to seek care at the centers increase the risk of Ebola transmission outside of ETCs. According to WHO, the high fatality rate (65%) is attributable more to delayed presentation at ETCs than to an inability to treat the patients.[32] Many of the patients who arrive at ETCs often do so in a severe condition with a poor prognosis and subsequently die shortly after admission (further fueling reticence to use ETCs).

Progress[33]

Community Engagement. The WHO and implementing partners have been working to deepen local engagement and such efforts appear to be producing some positive results. As of May 28, 2019, the

[26] WHO, *Press Conference on Ebola Disease Outbreak in the Democratic Republic of Congo*, May 28, 2019.

[27] Ibid.

[28] WHO, *Ebola Virus Disease, Democratic Republic of Congo, External Situation Report 40*, May 7, 2019.

[29] WHO, *Ebola Virus Diseases, Democratic Republic of Congo, External Situation Report 42*, May 21, 2019.

[30] WHO, *Ebola Virus Disease, Democratic Republic of Congo, External Situation Report 43*, May 28, 2019 and *External Situation Report 40*, May 7, 2019. The May 7 Situation Report was the last report to include the number of deaths among health workers who contracted Ebola.

[31] WHO, *Ebola Virus Disease – Democratic Republic of Congo* – Disease Outbreak News, May 16, 2019.

[32] WHO, *Press Conference on Ebola Disease Outbreak in the Democratic Republic of Congo*, May 28, 2019.

[33] Unless otherwise indicated, information in this section is from WHO, *Press Conference on Ebola Disease Outbreak in the* (continued...)

organization reports that 21 local Ebola committees in Butembo and Katwa had been established. Community members chair and manage the committees, which plan Ebola awareness and sensitization campaigns. Improved community engagement has reportedly contributed to increased participation in vaccine campaigns and safe and dignified burial practices. WHO reported that 95% of offered Ebola vaccinations were accepted and 90% of families accepted safe and dignified burials during the week of May 19-26, 2019. Reporting of suspected cases has also more than doubled over the past six weeks to roughly 1,400 daily alerts, of which over 90% were investigated within 24 hours of reporting.[34]

Health System Improvements. Efforts to improve community relations and bolster infection prevention practices in health facilities have reportedly reduced Ebola deaths outside ETCs (community deaths). According to a May 28 press conference, no community deaths had occurred for the first time during the week of May 19-26, 2019. WHO also reported that an increase in the proportion of Ebola cases that were detected from previously identified Ebola contacts. In an effort to reduce the risk of transmission and broaden access to Ebola treatment and case finding, WHO is establishing 17 smaller patient transit centers closer to communities.

Outlook

The current Ebola outbreak has prompted resumption of discussions about strengthening health systems worldwide, particularly regarding pandemic preparedness. In 2014, the United States and the WHO co-launched the Global Health Security Agenda (GHSA) to improve countries' ability to prevent, detect, and respond to infectious disease threats.[35] The United States, the largest donor to this multilateral effort, pledged to support it with $1 billion from FY2015 through FY2019. In May 2019, the White House released the *United States Government Global Health Security Strategy*, which outlined the U.S. role in extending the Global Health Security Agenda and improving global health security worldwide.[36] Authority for most of the multi-year Ebola funds, some of which are used to bolster ongoing pandemic preparedness efforts in West Africa and Ebola response in the DRC, expires at the end of FY2019. As of April 9, 2019, $268 million of available emergency Ebola appropriations remained.[37] The Administration is reportedly reprogramming these funds for the DRC Ebola response.[38] While the Administration, through the strategy and public statements, supports extending the GHSA through 2024, officials have not provided specific information on what that support might entail.

Members may continue to debate what role, if any, the United States should play in supporting global health system strengthening efforts to bolster global health security and whether to adjust funding levels to meet ongoing and looming infectious disease threats. Through regular appropriations, Ebola programs are funded through USAID pandemic influenza and CDC global health protection line items (**Table 1**). In the conference report accompanying P.L. 115-141, FY2018 Labor-HHS appropriations, Congress provided an additional $50 million to be expended by CDC over three years in support of the Global Health Security Strategy. Also in the 115th Congress, Representative Gerald Connolly introduced H.R. 7290, *Global Health Security Act of 2018*, which sought to codify U.S. engagement in the GHSA, as

Democratic Republic of Congo, May 28, 2019.

[34] Ibid and WHO, *Ebola Virus Disease, Democratic Republic of Congo, External Situation Report 43*, May 28, 2019.

[35] For more information on the GHSA, see CRS In Focus IF10022, *The Global Health Security Agenda and International Health Regulations*, by Tiaji Salaam-Blyther.

[36] White House, United States Government Global Health Security Strategy, 2019.

[37] Sensitive but unclassified (SBU). According to USAID, this information should not be shared publicly per the request of the DRC government due to concerns for safety of humanitarian workers. CRS correspondence with USAID on May April 9, 2019.

[38] Ibid.

(continued...)

outlined in a November 2016 White House memo.[39] Representative Connolly reintroduced the bill in the 116th Congress (H.R. 2166), it has been referred to a number of committees. In addition, Representative Chris Smith introduced H.R. 826 to facilitate research and treatment of neglected tropical diseases, including Ebola.

Table 1. U.S. Government Global Health Security Funding

(current U.S. $ millions)

	FY2015 Enacted	FY2016 Enacted	FY2017 Enacted	FY2018 Enacted	FY2019 Enacted	FY2020 Request
CDC	55.1	55.1	55.1	108.2	108.2	100.0
USAID	72.5	72.5	72.5	72.5	100.0	90.0

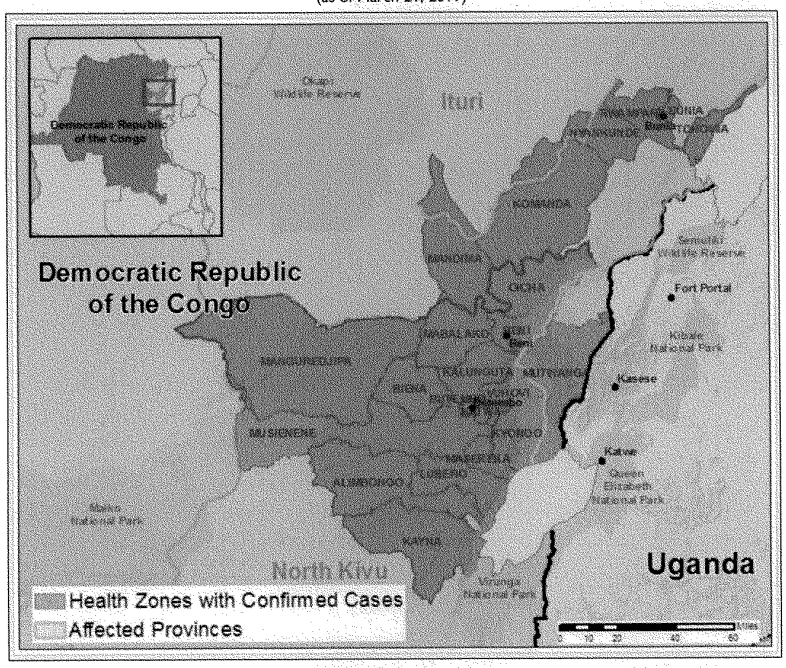
Source: Created by CRS from appropriations legislation and congressional budget justifications.

Notes: Excludes emergency Ebola funds.

[39] HHS, *HHS Officials Deliver Remarks at the Fifth Annual Global Health Security Agenda Ministerial Meeting*, Press Release, November 7, 2018.

Figure A-1. Ebola Outbreak Map: Eastern DRC

(as of March 21, 2019)



Source: Centers for Disease Control and Prevention (CDC), National Center for Emerging and Zoonotic Infectious Diseases (NCEZID), Division of High-Consequence Pathogens and Pathology (DHCPP), Viral Special Pathogens Branch (VSPB).