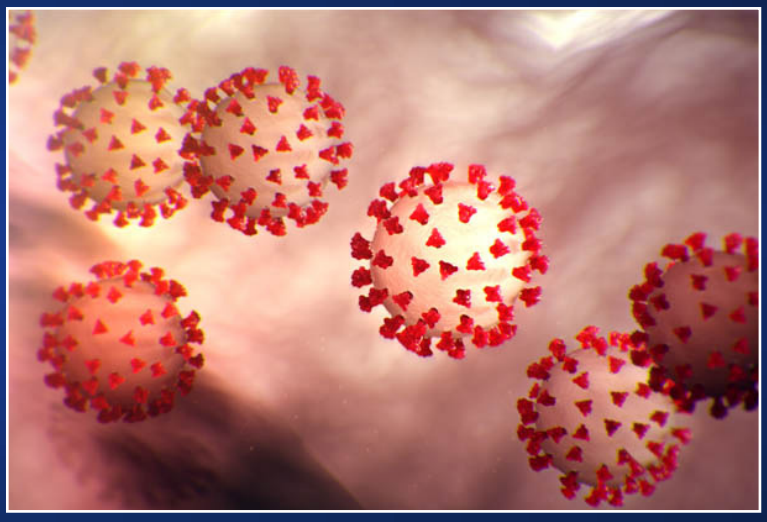
U.S. Department of Health and Human Services
Assistant Secretary for Preparedness and Response

2019 Novel Coronavirus Stakeholder Listening Session Transcript



Thursday, January 30, 2020

Saving Lives. Protecting Americans.

ASPR

Department of Health and Human Services
Assistant Secretary for Preparedness and Response

2019 Novel Coronavirus Stakeholder Listening Session Transcript

Thursday, January 30, 2020

Coordinator: Welcome and thank you for standing by. I would like to inform all parties that today's conference is being recorded. If you have any objections, you may disconnect at this time. I would like to now turn the conference over to our host, Cicely Waters. Cicely you may begin.

Cicely Waters: Thank you. Good afternoon everyone, and thank you for joining the call. I am Cicely Waters, the Director of External Affairs for the Office of the Assistant Secretary for Preparedness and Response (ASPR) within the Department of Health and Human Services (HHS).

The purpose of today's call is to provide a situational update and status of interagency efforts regarding medical countermeasures and the 2019 novel coronavirus. Speakers will discuss challenges, issues and next steps for enhancing our nation's ability to strengthen its health security against this outbreak.

Today, you will hear from representatives from the Office of the Assistant Secretary for Preparedness and Response, the Biomedical Advanced Research and Development Authority (BARDA), the National Institutes of Health (NIH), the Centers for Disease Control and Prevention (CDC), the Food and Drug Administration (FDA), and the Office of the Assistant Secretary of Defense for Health Affairs within the Department of Defense (DoD).

All callers except our speakers are muted on this call and are in listen-only mode. For our speakers, please do note that your line is not automatically muted. You will need to mute yourself manually when you are not speaking.

This call is being transcribed and the transcript will be made available at www.phe.gov.

This call is for the purpose of sharing information with our industry stakeholders so they can plan, prepare and respond as needed. If there are members of the media on the call, you should consider everything said by anyone on this call to be off the record.

Reporters are encouraged to contact the Department of Health and Human Services Office of Public Affairs at media@hhs.gov for comments on the record.

I would now like to turn the call over to our first speaker, Dr. Anita Patel from the Centers of Disease Control and Prevention. Dr. Patel…

Anita Patel: Great; thank you so much, and thank you for joining us today. We are in a situation now where we have been monitoring what has been happening with this novel coronavirus on the international scale.

As many of you know, we started watching this virus back in December and at that time it was unknown what was the cause for the illnesses that we were seeing.

It has now been deemed to be this novel coronavirus. We are taking this as a very serious public health threat; we know that this is an evolving situation and that it is rapidly evolving.

The constant changing as well as the reports and the numbers - they have been growing quite rapidly. We are in the U.S. right now seeing - we have a total of six cases that have been reported and overseas we have over 7700 cases that have been reported across multiple different countries.

Part of the risk we face right now is that we don't know yet everything that we would like to know about this virus. But this doesn't prevent us from preparing and responding.

We have experienced and responded to two earlier coronaviruses that have been merged to cause serious illnesses in people, SARS and MERS. And we have experience responding to bird flu outbreaks in Asia.

This is a new virus and we do have humility when it comes to this virus. There is a lot we don't know especially in terms of severity and transmission as well as the incubation period for this virus.

We are working to understand this incubation period as it will help us in our response. Right now we believe that the amount of days that it would take for a person to become ill with this virus could be anywhere between 2 to 14 days. That number of course could be higher or it could be learner. And as we learn more we are hoping to have that day timeframe tightened.

We are working to determine whether there is also asymptomatic transmissions. Normally with the coronavirus we see more viral shedding and more transmission when a person becomes more symptomatic.

China has reported that there has been some evidence of asymptomatic transmission and if that becomes confirmed some of our response strategies will shift.

This is an infectious disease response and this outbreak is complicated but our response principles that we have here at CDC and throughout HHS is still relatively simple. To try to identify cases. To isolate people. To diagnose them and to treat them.

The CDC has activated its emergency operation center and there is a series of activities that we have been focused on in order to be able to contain and prepare the country to be able to mitigate against those threats.

We have issued travel notices as many of you may have seen and our border strategy has included screening at certain points of entry. Going forward our border strategy has expanded to include an education plan to ensure that those that are arriving from China are aware of what the symptoms of this illness would be and what to do if they do find themselves ill.

In addition, CDC is working closely with our state and local partners to understand what is happening within each jurisdiction. We do have field teams that have been assigned and as cases have grown these teams have gone into the field to better understand what is happening with this virus.

This includes understanding the clinical spectrum of illness and also better understanding what is happening in terms of transmission.

We also now have the capacity to be able to test this virus here at CDC within our labs. We have developed a real time reverse transcription polymerase

chain reaction, RT-PCR that can diagnose this novel coronavirus in respiratory and serum samples from clinical specimens.

We have also publicly posted this assay protocol for the test and currently testing for this virus must take place here at CDC. But in the coming days and weeks we hope to have these tests available domestically as well as internationally for other partners to be able to diagnose.

In addition, we have activities ongoing to prepare our healthcare system. We are very focused on - have a very strong understanding that right now there is no vaccine and there are no drugs to be able to directly treat this virus.

That our focus for healthcare worker protection is really infection control. Our infection control guidance has been updated. The most recent update was day before yesterday and will continue to be updated based on the information that we have and what we learn.

We also have clinical inquiries and are supporting the clinicians that are treating these patients to be able to assure that we are able to provide the best guidance and information based on what we know.

In addition, we are working with our HHS family to have a better understanding and what is happening with the supply chain especially for products that are needed for the healthcare system. Primarily to ensure that whatever guidance we put out there is something that can actually be implemented.

We also have a strong communication strategy in place that allows us to communicate through multiple channels to healthcare, public health, private sector partners as well as the public.

We are also looking to have - to make sure that communication and messaging is through multiple different channels including media and social media.

We know that this is going to be a continuous changing situation and stand ready to pivot. But also know the importance of our partnerships with private sectors that will hopefully allow us to come up with solutions to help what we see as the situation evolves.

Every response is local. We understand that our local health departments as well as our state health department have the best handle of the situation and the best understanding of their needs. And we also understand the importance of our private sector partnerships throughout our enterprise at all of our activities.

So we thank you for your time and be happy to turn it back over to the moderator.

Cicely Waters: Thank you very much Dr. Patel. And again, that was Dr. Anita Patel, Senior Advisor, Pandemic Medical Care and Countermeasures Lead and Deputy Coronavirus Manager at CDC.

Our next presenter is Dr. Kevin Yeskey, Deputy Assistant Secretary for Preparedness and Response.

Kevin Yeskey: Thank you Mrs. Waters. Again, what I would like to do is talk about ASPR's current efforts to support domestic preparedness. We have a four-pronged approach that we are focusing on at this point.

One is medical countermeasure development. The second is healthcare system preparedness. The third is supply chain resilience. And the fourth is medical surge.

As Dr. Patel noted, this is a rapidly changing situation, and we are still learning about the new coronavirus discovered in China. With regards to medical countermeasure development you are going to hear in more detail from Dr. Bright after following me.

But just as a quick overview of what BARDA is doing is they are coordinating with CDC to expand manufacturing of diagnostic assays.

BARDA is looking at the effectiveness of existing therapeutics such as those in development for MERS-CoV against the 2019 new novel coronavirus.

BARDA is also coordinating with the Department of Defense and Department of Veterans Affairs on other medical countermeasure candidates.

With regards to the healthcare system preparedness, ASPR is supporting efforts primarily through our hospital preparedness program healthcare coalition network to provide general information on the virus, promote training opportunities and where possible provide supplies if and when needed.

We are also making sure that their hospital partners have access and are looking at the great guidance that CDC is producing and making sure that anytime there are updates that we refer them to those new updated guidances.

With regard to our supply chain resilience, understanding that most of the masks, gloves and active pharmaceutical ingredients are sourced from China.

ASPR is looking at some innovative approaches. Specifically looking how this issue can be addressed to our early product development.

We also continue to support a domestic manufacturing capabilities and capacity in supply chain resilience.

And then with regards to medical surge. If and when needed, ASPR is standing by to provide trained medical professionals. Our national disaster medical system personnel and be able to provide those to states and communities when requested to augment healthcare needs.

Our operation center as ASPR is running 24/7 seven days a week and we are at a heightened level of status for our operation center to make sure that we are able to support our state and local colleagues as well as interact with our private sector partners in these areas that I previously mentioned.

So again with our federal partners and with our state and local partners we are trying to continuously stay updated with the new understandings of this disease. How it impacts our healthcare system, our medical supply chain and our system preparedness for this outbreak.

And with that I will turn it back over to Ms. Waters…

Cicely Waters: Thank you Dr. Yeskey. Our next speaker is Dr. Rick Bright, Deputy Assistant Secretary for Preparedness and Response and Director, Biomedical Advanced Research and Development Authority. Dr. Bright.

Rick Bright: Thank you Cicely. Good afternoon everyone. I greatly appreciate all of the companies who are joining us on this call today. To share with us the gravity

of the situation that our nation faces in managing, mitigating novel coronavirus in 2019.

We have been hearing from many of you already at BARDA. I know across our HHS colleagues and across the Department of Defense colleagues about many potential candidates and solutions to help us address this outbreak.

I look forward to the strategies and solutions that may come up in this meeting and after this call to secure our nation's health security against this novel coronavirus.

As you heard from Dr. Patel and Dr. Yeskey already. Given the lack of approved therapeutics, vaccines and diagnostics for this novel coronavirus, developing new products and testing products that are already approved for other indications is a very high priority.

ASPR and BARDA is leading the U.S. government medical countermeasure task force to work with all of our interagency partners including the Department of Defense, the FDA, the CDC and the NIH to align medical countermeasure developments.

Our goal is to provide for you and your potential solution, a single point of entry into the Medical Countermeasure Task Force. So your technologies and your drugs and vaccines and diagnostic technologies will be received, reviewed and prioritized. Without you needing to spend your valuable time making multiple calls to multiple agencies.

As the task force receives these proposals and technology overviews they will flush out a strategy. A key component of that is the plans, the means and even the potential hurdles that our industry and manufacturing partners will face as

they relate to countermeasure development that will be so critically important for this response.

So I will turn it over to Dr. Robert Johnson now who is in BARDA and is the Chair of the Medical Countermeasure Task Force. And he will give you an update on our activities not only in BARDA and the task force. And pay careful attention throughout the end of this call for the portal address that you will need to use to submit your data sets.

Thank you. Back to Ms. Waters.

Cicely Waters: Thank you Dr. Bright. And now I turn it over to Dr. Robert Johnson who is the Director of Influenza and Emerging Infectious Disease within BARDA and the Task Force Chair for the Department of Health and Human Services Novel Coronavirus Task Force. Dr. Johnson.

Robert Johnson: Thank you Ms. Waters. As Dr. Bright described, the task force is focused on strategies to address the need to develop therapeutics, vaccines and diagnostics against the novel 2019 coronavirus.

In order to do this successfully we must cast a wide net and are interested in a variety of Medical Countermeasure approaches. We are in the early stages of evaluating effectiveness of existing therapeutics including those developed for SARS-CoV and MERS-CoV and assessing their effectiveness against 2019 novel coronavirus and *in vitro* assessment and are interested in expanding this assessment.

We are also interested in products that utilize platform technologies and other approaches that allow for an expedited product development pathway.

For example, platform diagnostic modalities that could be rapidly adapted to include assessments for the 2019 novel coronavirus. Allowing early recognition and isolation of cases.

Similarly, broad spectrum antivirals that have shown promise against coronavirus - other strains of coronavirus in animal models are candidates that we are interested in further assessment.

Also of interest in manufacturing scale up and - we are also interested in manufacturing scale up and production capability to ensure timely scale up production and delivery of products on a large scale.

These examples are just some of the many technologies and product development approaches we are interested in. I look forward to hearing more about the exciting products that all of you are developing against this novel coronavirus as we move forward.

With that I will turn it back over to Ms. Waters.

Cicely Waters: Thank you Dr. Johnson. Our next speakers are from the National Institutes of Health. Dr. Alan Embry, Chief Respiratory Diseases Branch and Dr. Hilary Marston, Medical Officer and Policy Advisors. Dr. Embry.

Hilary Marston: This is Hilary Marston. I am going to start off for us and then turn it over to Dr. Embry. I want to reiterate what my colleagues said. Really thank everyone for their interest in this effort. Obviously we have a cross government effort going on here and appreciate all of the interest from beyond the government.

As to the NIH's activities, along with our HHS colleagues. NIH and particularly NIAID initiated research activities at the very beginning of January. Trying on both our intramural and extramural expertise.

Thankfully in doing so we were able to build on a base of coronavirus research which was spurred by both the SARS and MERS epidemics ranging from basic pathogenesis to animal models, diagnostics, therapeutics and vaccines.

On that base we are able to launch activities in each of those areas for this new virus. For example with respect to basic research we are working on developing reagents that may be of use both to the research community and to different companies.

Those reagents ranging from molecular clones, protein, protein subunits, laboratory assays. It is our intent to make those available to researchers and to industry through repositories like BEI.

We are also working on the development of animal models to this and there is a recent discovery of a receptor for the novel coronavirus. It appears that it is able to use ACE 2 receptor similar to SARS virus which will facilitate the development of small animal models. We are also working on large animal models.

With respect to therapeutics and vaccines we have heard from a number of companies and we appreciate the outreach and encourage that to continue. With that I am going to turn it over to Dr. Embry to speak a little bit about that.

Alan Embry: Thank you Hilary. As Hilary said, we are working very hard to accelerate our research response. Through BEI, NIAID will facilitate the distribution of viral isolates, molecular clones, pseudoviruses and other reagents to help scientists rapidly develop medical countermeasures.

As Hilary also mentioned, we are in the process of establishing a number of resources to enable small molecule, monoclonal antibody and vaccine development and testing.

We encourage scientists and product developers to reach out to us to discuss their potential assets and development plans, and identify ways that NIAID may be able to help facilitate and accelerate research.

Those investigators or companies with existing NIH grants are encouraged to submit administrative supplement requests that address research questions or advanced medical countermeasure development for the novel coronavirus.

Additionally, we are very interested in possibilities to advance the most promising candidates into clinical trials. Together with our United States Government (USG) colleagues, we are currently looking across the landscape of novel and existing therapeutics and vaccines to evaluate potential candidates to move forward into clinical trials.

As Dr. Bright and others have said, we are working closely across the government to coordinate our response and to rapidly identify the most promising therapeutics, vaccines and diagnostics.

We look forward to talking with you to learn about your exciting ideas and assets you have to address this novel coronavirus.

Cicely Waters: Thank you Dr. Embry. Our next speaker is Mr. Michael Mair, Acting Assistant Commissioner for Counterterrorism Policy and Acting Director of the Office of Counterterrorism and Emerging Threats. Office of the Chief Scientist at the Food & Drug Administration. Mr. Mair.

Michael Mair: Hi. Thank you for the opportunity to say a few words today. I will start by just echoing our U.S. government partners on the line and tell you that responding to the novel coronavirus outbreak as a high priority for us here at FDA.

We are actively monitoring the situation and as you have heard collaborating closely with our interagency partners on the line today as well as with international partners and medical product developers to help advance response efforts.

Key focus areas for FDA is helping to expedite the development and availability of medical products needed to diagnose, treat and prevent this disease. And we are engaged in providing regulatory advice, guidance and technical assistance to help expedite the regulatory process and advance the development and availability of medical products as rapidly as possible.

Just one example to assist diagnostic developers we have developed an emergency use authorization review templates for tests to detect the novel coronavirus. Which outlines the data requirements for a Pre-EUA package. And that is available to product developers upon request.

You can find information on how to obtain the EUA review template as well as the information on how to submit information and questions to the FDA on our novel coronavirus Web site which is available from our main Web site, FDA.gov.

I will just close and say FDA is committed to providing our full support using our authorities to the fullest extent to respond to this outbreak. And I really want to just thank all of you for your help as we work together to bring this outbreak to an end as quickly as possible.

And with that I will turn it back over. Thanks.

Cicely Waters: Thank you Mr. Mair. Our next speaker is Colonel Jennifer Kishimori, Director of Medical Countermeasures Policy, Office of the Assistant Secretary of Defense for Health Affairs, Health Readiness Policy & Oversight within the Department of Defense. Colonel Kishimori.

Jennifer Kishimori: Thank you Ms. Waters. Good afternoon, on behalf of Honorable Tom McCaffrey, the Assistant Secretary of Defense for Health Affairs and Dr. Terry Rauch, the Deputy Assistant Secretary of Defense for Health Policy Readiness and Oversight, I am pleased to join the interagency team on this call to our industry partners. Our office, the Office of the Assistant Secretary of Defense for Health Affairs or Health Affairs is the lead staff office to support the Department of Defense in all health matters.

We are in support of the other DoD offices and the Joint Staff for the full preparedness planning and we serve as the lead for Force Health Protection in coordination with the Joint Staff Surgeon's Office.

DoD is following the outbreak closely and Force Health Protection is at the forefront of our planning. DoD is in support of the interagency for preparedness and response efforts against the novel coronavirus outbreak and participates in the many meetings and calls with the interagency and the WHO to assure that we are aligned appropriately.

As always, DoD follows guidance from the CDC as the USG medical lead. And as we know, because this is a new virus, information is emerging and changing daily.

Our military health system, which comprises the medical assets within the DoD, works to keep pace of the CDC and interagency guidance in this very fluid situation.

DoD has developed Force Health Protection guidance to the Force and is distributing guidance to healthcare providers and military families at all of our military treatment facilities, that is built on CDC guidance.

Through our executing organizations such as the Defense Health Agency, we are working to communicate current guidance for public health, hospital preparedness, patient evaluation, infection control, laboratory testing and health risk communication in coordination with the Joint Staff.

Specifically we are working with the DHA and the Joint Staff on coordinated preparedness and messaging to include published guidance and Web-based information sharing.

DHA medical affairs teams have developed information for healthcare providers to ensure that any patient with a risk of infection receives the proper care and testing, and public health authorities are notified of all cases.

The DoD sustains personal protective equipment in accordance with the interagency pandemic influenza planning guidelines, and these consist of respirators, masks, gloves, gowns and eyewear. We continue to assess our stock levels with respect to this new virus.

The DoD stands ready with a multitude of capabilities in coordination with the interagency to monitor and respond to the novel coronavirus for both surveillance and research and development.

The DHA laboratory network synchronizes laboratory capability across the department and military health system, and we are working with the interagency to ensure that our supported laboratories have the necessary detection characterization capabilities in place to support readiness across the globe for the force.

The Armed Forces Health Surveillance Branch and the Global Emerging Infectious Surveillance program under the DHA continue to monitor on a daily basis the status of the outbreak and are in direct communication with our geographic combat and commands.

The Naval Medical Research Unit in Cambodia continues increased surveillance for the novel coronavirus at the China border.

The Armed Forces Research Institute of Medical Sciences in Thailand is also in a forward position to identify and characterize virus isolates.

And on the research and development front, the military health system has end to end research and development and expertise within the department, and also coronavirus research and development expertise, and we are actively collaborating with the interagency on response efforts. We have scientists and clinicians with experience in rapidly executing preclinical studies and virus vaccine clinical trials with knowledgeable infectious disease clinicians throughout DoD laboratories.

The DoD medical research and development community also houses capabilities for other critical areas including rapid antibody discovery and manufacturing capability, medical diagnostics, and advanced development expertise for achieving FDA approval for diagnostics, vaccines and therapeutics.

In summary, Force Health Protection is our top priority in Health Affairs and the Department of Defense. The MHS continues to coordinate with DoD partners and the interagency to optimize preparedness and response efforts against the novel coronavirus.

We appreciate the opportunity to share current activities within Health Affairs and the Department of Defense. Thank you and I will turn it back over to Ms. Waters.

Cicely Waters: Thank you very much Colonel Kishimori. Now we would like to switch tracks a little bit and provide an example list of the questions that we did receive beforehand on this call. As given the large number of dialers and stakeholders on the line we will not open the line for questions.

But we will provide a few examples of the questions that we did receive in advance and will answer some of those questions for you now.

The first question is what types of diagnostic products does the Medical Countermeasures Task Force see the greatest needs for?

John Tegeris: The answer - currently the greatest need for diagnostics products are for molecular assay specific for the novel coronavirus for us on diagnostic instruments that are mature FDA cleared, widely placed, already used to analyze respiratory samples.

And in routine use in healthcare settings in the U.S., both laboratory based and point of care.

Cicely Waters: Is the Medical Countermeasures Task Force supporting the development of therapeutics for the 2019 novel coronavirus?

John Tegeris: The task force is using existing collaborations to develop antivirals and host targeted therapeutics in the treatment of novel coronavirus infections. We are surveying the market for candidate therapeutics and we would love to hear from those who have treatments that may be efficacious against this new virus.

Cicely Waters: How is the Medical Countermeasures Task Force evaluating candidate therapeutics?

John Tegeris: Research and development is in the beginning stages and will be evolving as we get more information. At this point in time we are investigating candidates that have data supporting activity against other coronaviruses such as SARS and MERS.

As the novel coronavirus culture conditions become available, candidates will be screened for activity against novel coronavirus as well. After activities established, the typical therapeutic attribute supply such as safety, drug supply, manufacturability and ease of administration.

As we learn more about the novel coronavirus disease, the therapeutic evaluation criteria will evolve.

Cicely Waters: What are the prospects for developing a prophylactic vaccine against novel coronavirus?

John Tegeris: We believe that a vaccine can play an important role in prevention of infection from novel coronavirus. At this point we are evaluating all options especially that leverage platforms and technologies currently licensed or in late stage clinical development.

Cicely Waters: Does the Medical Countermeasures Task Force plan to support novel coronavirus vaccine development?

John Tegeris: The task force will first exercise existing development agreements to jumpstart vaccine development. However, we are ready to support additional development effort if the need is justified.

Cicely Waters: What criteria does the Medical Countermeasures Task force apply in evaluating vaccine technologies?

John Tegeris: The task force prioritizes novel coronavirus vaccine development approaches and organizations that can rapidly deliver a safe and effective vaccine.

Furthermore, we believe that there is a critical need to advance existing manufacturing platforms towards robust, flexible and sustainable capabilities to meet future challenges to the public health.

Cicely Waters: Thank you very much. And we did receive several questions from stakeholders. We appreciate that and we do have those on record. I will now turn over to Dr. John Tegeris, BARDA TechWatch program manager.

John Tegeris: Thank you Ms. Waters. Thank you all to the stakeholders who took time. There are many on the call. And so let me just start by saying, the BARDA TechWatch program and our portal really provides an ideal platform to help address the coronavirus outbreak.

It is really our way to engage you all as stakeholders. To engage industry and anyone who has potential solutions to help out with the coronavirus, this novel coronavirus response.

So we have quickly adapted our platform so that we can make it very easy for you all as stakeholders to engage with us and connect with us. To that end and literally as this meeting took place we have just launched what is a banner on our Web site which is medicalcountermeasures.gov.

I think most of you have it in the information that included the call-in numbers and the agenda. And basically that banner will take you to the market research submission form. And there you can actually enter the information.

I will just say from a high level, we take very seriously our engagement. If you look at our medicalcountermeasures.gov Web site there is a - for our routine, you know, daily priorities to address mission threats.

You can always depending on your technologies request a TechWatch meeting there and also read our BAA that outlines our areas of interest, you know, that provide potential funding opportunities.

And again we look at you all as partners to really help accelerate success. And in this case really responding to the novel coronavirus outbreak.

So with respect to that banner. It is a simplified process. We are very data driven organization as you know. So if you could consider uploading for example, a slide deck that is very much contains the data to show anything with respect to proof of concept for coronavirus.

That will help us as not only BARDA but our interagency partners that are part of this process evaluate what you submit.

Everybody that does submit something to us and upload a slide deck, 20, 30, 40 slides whatever you think is necessary to tell a compelling story. We will review each as we normally do with the TechWatch program.

We have a touch base with everyone that submits a request. We will get back to each of you. We will engage each of you in what we hope productive, informative and robust technical and strategic discussions.

And we will make sure that all of the agencies represented on this call have a seat at the table to really help us evaluate your technologies. But we are grateful for the ability to work with you and maybe help us better respond to this novel coronavirus threat.

As a final point, and again the portal is medicalcountermeasures.gov. Our email address if you have any questions as what Ms. Waters said. Any questions related to the submissions, any questions related to our TechWatch program for this response, any questions related to the Qs and As we are discussing here - we will work together to address those and you can send that to the TechWatchinbox@hhs.gov. Thank you.

Cicely Waters: Thank you very much. And as we mentioned earlier, this call is being transcribed. And the transcript will be made available at phe.gov.

I would also like to reiterate that the purpose of this call was for sharing information among our industry stakeholders so that they can plan, prepare and respond as needed.

If there are members of the media on the call, you should consider everything said to date as off the record. And if you would like comments on the record, please reach out to us at media@hhs.gov. This does conclude today's call, and we thank you all for joining.

- END -

Acronyms

ASPR- Assistant Secretary for Preparedness and Response

BAA- Broad Agency Agreement

BARDA- Biomedical Advanced Research and Development Authority

BEI- Biodefense and Emerging Infections

CDC- Centers for Disease Control and Prevention

CoV- Coronavirus

DHA- Defense Health Agency

DoD- Department of Defense

FDA- Food and Drug Administration

HHS- Department of Health and Human Services

MERS- Middle East Respiratory Syndrome

MHS- Military Health System

NIAID- National Institute of Allergy and Infectious Diseases

NIH- National Institutes of Health

SARS- Severe Acute Respiratory Syndrome

USG- United States Government