CENTERS FOR DISEASE CONTROL AND PREVENTION

Moderator: Raffi Standifer
March 1, 2017
1:30 pm CT

Coordinator: Welcome and thank you for standing by. At this time, all participants are on listen only mode. This call is also being recorded. If you have any objections you may disconnect at this time. And I would like to introduce Christine Kosmos, Director, Division of State and Local Readiness, Centers for Disease Control and Prevention. Ma'am, you may begin.

Christine Kosmos: Thank you so much, operator, and thank you to all of you. This is the first in a series of support for state and local health departments also starting the Zika response for 2017.

So we have invited state health officials, state and local preparedness directors and other staff on the Zika preparedness and response team. Just a note that we want to just start with.We are aware that the invite has been shared pretty broadly with other constituents and other parties that would have interest in hearing from our subject matter experts today.

But just one issue that we wanted to call to your attention: if you represent the media or the press, we're going to ask you to disconnect today. This is for state and local public health and our partners only.

So the purpose of today's webinar is, I'm sure you know, is to really provide a 90-minute overview session to talk about Zika preparedness and response activities and that we will be following up with a series of deep dive sessions in the areas of epi, lab, maternal and child health, blood safety, and medical investigation science.

Public information officers are also going to be part of our risk communication series as well. So this - the purpose of today - is really an overview session.

We've asked each of our subject matter experts here at CDC to provide you a quick overview of each of the topics and then again we will be deep diving into several throughout the course of March.

So I wanted to give you a couple of quick updates on some of the successes so you have a little bit of context on how all of you have responded throughout the course of the response.

For all our funded jurisdictions, you all have developed a Zika response plan as well as a recovery plan. You have also developed your key messages and communications plans around Zika transmission.

Almost all of our jurisdictions have a state action plan for vector control in place. Other jurisdictions that have had local transmission, I'll have determined the geographic area of the transmission and have put in place expanded surveillance and response as well as outreach to pregnant women in the areas that have had local transmission.

And all have had laboratory testing of staff and surge plans in place for your labs. Also, all of the jurisdictions that have had local transmission have developed and distributed Zika prevention kits.

So just so you know, we consider that to be great progress in a very short amount of time. So just a couple of key facts are met. Today, what we've asked you to do, or what we've asked our subject matter experts to do, is each of them do a round-robin on quick topics that they're going to talk about before we get it to obviously the follow-up deep dive conversations.

But we've asked them to focus on three areas - what are the major lessons learned, what are the updates to our Zika guidance and also the recommendations for all of you for how they better plan for the upcoming 2017 mosquito season.

So, again, lessons learned, updates to the guidance, and their best recommendations for you as to how you continue your planning for 2017. So following today's webinar, there will be eight sessions that I talked about.

Those are the deep dives that I talked about. It'll be vector surveillance and control, pregnancy and birth defects, epidemiology, laboratory, risk communication, blood safety, medical investigations at public and private partnerships.

So the webinar series has really been designed to help all of you at the state and local level to review (where) you are in terms of your Zika preparedness and response plans as well as to improve your plans and your response actions moving forward.

So we think that this series will be very beneficial for all of the participants and should help you to answer the following questions: is your jurisdiction ready for 2017 outbreak? How can your jurisdiction better prepare for Zika in 2017? What elements of a comprehensive Zika plan do we need to review or reconsider? How can we best customize a set of activities that's right for our own jurisdictions, unique conditions of risk, weather, resources, and community input?

And also, please keep in mind that, like many responses here at CDC, we will continue to update our guidance as we learn more through the science. And you can always access the most recent information on the CDC's Zika web site.

So we've sent the slides out and for those of you that have dialed into the webinar. You can see the slides up on your screen as well. But if, for whatever reason you don't have the slides, you can send us a quick email at Preparedness@cdc.gov and we will send out the slides.

In addition to that, we're anticipating, because of the sort of quick round robin nature of today's call, that we probably won't have time left over to do any sort of extensive Q&A.

We think those questions really are going to be best answered in a deep dive session. However, if we don't get to a question, did not answer something, or if there's something that you want us to specifically address when we do our series of deep dive webinars, you can give us some suggestions at Preparedness@cdc.gov.

So, let me introduce you to the speakers for today. Carolyn Gould will be representing the Epi task force. Dana Meaney-Delman is going to be representing Pregnancy and Birth Defects.

Eddie Ades is going to be talking about Laboratory Response. Koo Chung is going to be presenting the Blood Safety Task Force. Maleeka Glover is on for Medical Investigations. Erin Connelly is one for the JIC, the Joint Information Center.

Melody Stevens is going to be representing Policy and Partnerships. And John-Paul Mutebi is going to be representing our Vector Issues. Now, before I turn it to Michael Beach, there was a question that came into our mailbox that we thought we should address head-on and that is the availability of funding for the upcoming season.

So I think it's safe to say and we've talked about this before that all the funding that CDC has available to us right now has been distributed to the state and local level.

And what we want to do is talk - turn it over to our representative from Office of Grant Services, Tracy Moore, to talk about the availability of using funds that you already have awarded and using that to sustain your activities through year two activities. So, Tracy, can I turn it over to you so you can help them out with that question?

Tracy Moore: Yes, thank you, Chris. Good afternoon. As Chris said, we will not be getting any additional funds and so what the Office of Grants Services is going to provide is some instructions, some written instructions to you all requesting that you come in with the prior approval extension request to use your remaining funds from July 1, 2017 through June 2018.

In the request, you will need to provide an FFR, a budget table that clearly shows current funding levels for each budget category along with itemized budget and justification outlining the activities that will be completed using the remaining funds.

And so, here, what we're going to do is just merely, when you come in for your - to request the budget extension and provide us with your written justification using the funds for approved activities, they were going to go ahead and extend that budget to align with the project period.

So it will, in essence, like you have a 24-month budget period along with the existing project period, which both will end in 2018. So, Chris - go ahead.

Christine Kosmos: Thank you so much, Tracy. I think that will be very helpful. And I think all of you that work on grants now that you can reach out to your project officer who's going to be your main point of contact at the CDC to help work these things out and get that submitted over to the Office of Grants Services. So thank you, Tracy. Very helpful.

Tracy Moore: Thank you.

Christine Kosmos: So right now I'm going to turn it over to Dr. Michael Beach, who's our deputy incident manager, to have a few comments before we get into our round robin with our subject matter experts. Michael.

Dr. Michael Beach: Great. Thanks everyone for joining us today and I think it's kind of a big kickoff for the deep dive session. What I wanted everybody to keep in mind and as you just heard, there really isn't time today for questions, but there's clearly a place you can send comments.

But I do want to talk about the CONUS plan which was released earlier, you know in June of last year, that we are in the process of revising now. The initial drafts are in and we're starting to go through this.

And basically what we're trying to transform this into is kind of a hub and satellite type of makeup. Rather than a 70-page document, we will have a much more condensed hub, kind of giving a broader overview, and then that will point to the more specific areas that you can go to on the web and so on to find the detailed materials that need to be used in the field.

And I think that's going to make it much easier for us to nimbly change things. Rather than having to get clearance over 70-page document, we can more rapidly get you the latest information that we've got, if we build it like that.

And with that in mind, I wanted you to keep in mind, as we're going through these deep dives today, this is not a done deal. This is actually intended to get you to hear where we are at this point in time, and especially the hour-long sessions over the next couple of weeks, get you to start giving us feedback and put that, you know, you agree, you don't agree.

Here's our learning, lessons, and so on, because we want to be able to incorporate that as we're redrafting this CONUS plan and any other kind of satellite, more specific issues that we're going to be putting out there.

So please, this is about is listening to you just as much as you listening to us. And we want you to be coming back with as many comments as possible to say where you think we should be going this season, what things should be tweaked.

We think generally, we're in the right direction as we went forward last year but there clearly lessons learned and new data and other things that we can assess that will make this that much easier, better, more efficient and more likely to control transmission if we incorporate them.

So please keep that in mind as you're hearing today, but specifically over the next couple of weeks, and make sure you forward this invitation to appropriate people. We're going to customize the invitation list as well, but we really do want to hear from you because we'll be rolling this out.

After all of this is done, and we kind of finalizing get it clear, then we'll be rolling out the final. But it really needs to incorporate your specific information, so we really want to hear from you. Thank you very much.

Christine Kosmos: All right, thanks, Michael. All right, so let's start with our round robin today and were going to start with the Epi Task Force. So Carolyn Gould will be the presenter - Carolyn.

Carolyn Gould: Hi. Thanks, Chris, and thanks everybody for joining the webinar today. I'll be presenting a brief overview of the surveillance data for Zika virus in the US and highlight sort of at a high level some issues in preparing for the next season as well as ongoing challenges that many of you are probably very familiar with in the epidemiology and surveillance for Zika virus.

And given the time limitations, as you heard, we'll go into more detail on many of these issues during a dedicated one hour call later this month. So just a brief recap of Zika virus in the United States - from 2007 to 2014, there were only 14 Zika virus disease cases identified among US travelers.

And, of course, with the recent outbreaks in the Americas, cases among US travelers have increased substantially. There has been only limited local mosquito-borne transmission identified in two US states - Florida and Texas - and there have been large outbreaks in three US territories - Puerto Rico, US Virgin Islands and American Samoa.

Next slide. And this is a summary of the laboratory-confirmed Zika virus disease cases reported to ArboNET by states and territories as of February 15. So for states, there have been a total of 5,040 Zika virus disease cases reported.

Most of those were travel-associated. There were 220 cases that were presumed local mosquito-borne transmission and then 72 cases that were attributed to other sources of exposure including sexual transmission, congenital infection, one case of laboratory transmission and one case of person-to-person transmission through an unknown route.

For the territories, there've been a total of 37,023 cases and most of those were local - presumed local mosquito-borne transmission cases. Next slide. This is a breakdown, as of this date, of residents for reported Zika virus disease cases as well as presumptive viremic blood donor cases which have recently been added to the case count website, and this is as of February 15.

So you can see the breakdown by states with New York and Florida having the most cases reported, followed by California, Texas, and then mid-Atlantic states - New Jersey, Pennsylvania, and Maryland.

The cases in Florida and Texas include the locally transmitted cases there, as you can see in the footnote. And for the presumed/presumptive viremic blood donors, these are people whose blood tested positive when screened for the

presence of Zika virus RNA and then subsequently underwent laboratory confirmation.

And some viremic blood donors may develop symptoms either before or after the blood donation, so they may be classified as both Zika virus disease cases and viremic blood donors in some cases.

Next slide please. These - this is a breakdown of the Zika virus disease cases and presumptive viremic blood donors reported from the territories. Puerto Rico had the most number of cases reported, followed by the US Virgin Islands and American Samoa, and only Puerto Rico has reported presumptive viremic blood donors.

Next slide. This is an epi curve of the places reported in the US states and territories by month of illness onset, so you can see the peak of outbreak in the US states occurred in July and August and in the territories in August, and then there was a pretty rapid decline in reported cases in the late fall and winter.

Next slide. So just to review and remind everybody of the objectives of Zika virus surveillance in the United States, we want to quantify and describe the disease burden, identify and define areas of local mosquito-borne transmission, which will help us inform indirect prevention and control efforts.

And then it's important that we identify and monitor infections in people at risk for poor outcomes, in particular, pregnant women and their babies. Next slide.

We - there will be continued reporting of Zika virus disease cases with Zika virus disease and infection being nationally notifiable using the most recent version of the CSTE case definitions published in July.

And these include non-congenital and congenital infection and disease case definitions. So healthcare providers should continue to report suspected cases to their state or local health department and state health departments should continue to report laboratory-confirmed cases to CDC according to these definitions.

And timely reporting will really allow health departments to assess and reduce the risk of local transmission and mitigate further spread. Next slide. So there are some potential strategies that health departments can use to identify possible local transmission during mosquito season.

And some of these potential strategies include, for example, surveying of all members and neighbors of travel-associated cases that have been identified to look for other potential cases of symptomatic disease.

Also, to monitor the results of blood screening, investigate unusual clusters of rash illness in areas believed to be at high risk, and then determining strategies for expanding testing for people who don't have any known travel exposures but - or sexual exposures - but may present with more specific constellation of clinical findings such as a combination of fever, rash, and conjunctivitis in areas with - where there are known to be the vector mosquitoes.

Next slide. In terms of preparing for the next season, it will be important for jurisdictions to reassess their risk areas based on knowledge acquired during the previous season, the populations at risk, as well as the timing and terms of

when the vectors are likely to begin becoming active, and the travel patterns of people.

It will be important to continue to educate healthcare providers and local public health officials to make sure that Zika virus- remains on people's radars and to reassess the capacity for public health laboratory testing and surge capacity and to ensure adequate capacity and reporting from the commercial laboratories.

It will also be important to make sure the response plans for vector control are updated and to continue good communication and coordination with the blood collection agencies.

Next slide. And then just, again, to highlight some of the ongoing challenges that we've identified this past season and that we'll be discussing in more detail during the deep dive session later.

Some of the things that we've found particularly challenging and that I'm sure all of you, or most of you are probably aware of: we've been trying to determine the most optimal and cost-effective approaches for identifying local transmission in terms of the approaches for surveillance of symptomatic disease and testing strategies.

We've also been discussing the best surveillance strategies for determining the extent of local transmission based on lessons learned from Florida and Texas. For example, you know, the use of uro surveys is an example of the potential challenges we face, what is the utility of uro surveys and other strategies for detecting other potential local cases.

Defining travel exposure risk has been a challenge. This has come up particularly with the border region in Texas - as people - you know, there's a very fluid movement across the border.

And as we've gained more knowledge about the prolonged duration of RNA positivity in certain populations and that makes it more difficult to determine the window of time that we should potentially use to define a travel exposure.

Identifying the likely exposure location of confirmed cases has been a huge challenge. I know Florida can speak volumes on this, determining where people move throughout their day, you know, within the city, within a county, within a state and where they - the most likely location of their mosquito exposure might have been has been really difficult.

There've been a lot of diagnostic issues. I know you'll hear more from the lab - particularly with the serologic testing, cross-reactivity with other flaviviruses and the potential for false positives.

It's also important to recognize that, because the symptoms and the serologies are non , maybe non-specific for Zika virus, then we need to think about other potential pathogens that might be responsible for patient symptoms and test appropriately.

Communicating risk and delineation of risk areas has been a challenge. Determining criteria for implementing yellow areas, for example, and thinking about what might allow us to list a yellow area, is something we have ongoing discussions about.

As far as travel and testing guidance, it's been pretty challenging to try to implement the most timely and appropriate travel and testing guidance given

the uncertainties and defining, you know, the level of risk in a given area and the time it takes to investigate cases. So that's also a challenge that we need to address.

And then the last challenge listed here, not the only - this isn't the entire list - but the last one we thought about, was correlating human risks with vector surveillance data.

So some of the discussions we've had about how to utilize things like trap count data and whether there might be, to determine human risk, and whether there might be thresholds that we could determine to identify when people might be at greater risk for Zika virus infection.

So, again, we'll discuss a lot of these issues during our deep dive later this month and that's the end of my presentation. So thank you very much.

Christine Kosmos: Thank you, Carolyn. Appreciate that. Now we're going to move to Dana Meany-Delman to talk about pregnancy and birth defects.

Dana Meany-Delman: Thanks so much, Chris. So, again, I want to extend my thanks to all of you for joining today. It's been quite impressive to me over the past year, what we have learned about Zika virus, specifically in the pregnancy and birth defects arena.

Thanks so much for the surveillance work that you all are doing. We've learned a tremendous amount. We've established clearly that Zika is a cause of microcephaly and specifically causes serious brain defects that may be the cause of microcephaly.

It also is clear that hearing loss and eye abnormalities, as well as limb abnormalities seem to be part of the congenital Zika virus syndrome.

We've also been able to estimate, through our surveillance systems, as well as through some modeling estimates, the risk of Zika virus infection during pregnancy and the risk that poses to a fetus.

Through our US Zika Pregnancy Registry, we've been able to identify about 6% of those in the registry have infants with congenital birth defects. And among those, 11% had exposure in the first trimester.

This is in alignment with our modeling estimates that estimated a similar risk in the first trimester. We've also been able to recognize a clear pattern with our Brazilian and Colombian collaborators, a clear pattern of defects that are not defined as congenital Zika virus syndrome.

And this is very similar to what we've seen with fetal brain disruption sequence, and we think this represents a tip of the iceberg -the most severe cases that we're seeing.

We've also been able to identify first and second trimester infections as clearly being associated with birth defects. We still have a lot to learn about infections in the third trimester. It's much more challenging because, in general, third trimester congenital infections are more associated with things like growth restriction and fetal loss, which have many, many other causes.

Next slide please. So one thing I wanted to highlight, and we'll go into this obviously in more detail in our deep dive, are all the successful partnerships that have been established over this past year.

We've brought together partners from very disparate groups. I never thought I would know anything about mosquitoes when I trained to be an OB/GYN and I think, similarly, those who are infectious disease experts maybe didn't think they would be talking about pregnancy and birth defects issues.

We really appreciate all the collaboration that has gone into developing traveling and testing guidance for pregnant women, and specifically, our health alert network notices which were a herculean effort that took a tremendous amount of collaboration between the federal, state, and local partners.

We've also been very happy to deploy pregnancy and birth defects teams. These haven't traditionally been part of our CERT teams, but we've been able to deploy pregnancy and birth defects experts as part of the response teams in our territories as well as in Florida and Texas.

And we've been able to partner very successfully with state and local jurisdictions and bring them together with their clinical partner organizations to increase outreach at a local level to healthcare providers, and specifically the American College of OB/GYNs and the American Academy of Pediatrics have been our partners all along and have helped us to tremendously as we think about developing clinical guidance in this setting of very, very limited data.

Next slide please. So we've been able to develop, with all of your help, clinical tools and guidance. These are some examples and there are many, many more on our website.

The Zika pregnancy testing algorithm is a particularly important tool because testing is complicated. We wish it was easier, but it is a very complicated

testing algorithm, and so this has been a real help as providers are thinking about how to test pregnant women.

Next slide please. So we have, I think, been able to demonstrate a clear understanding that pregnant women should be assessed for possible Zika exposure, not only those with signs and symptoms, but those who have traveled but they don't have signs and symptoms.

And we've seen successfully that pregnant women are being screened at each of their prenatal visits for travel related exposures as well as for sexual exposures.

Next slide please. And so our CDC recommendations on who should be tested are listed here. I think some of the lessons that we've learned over this past year are that it is very complicated to think about all these different types of exposures.

I think sexual transmission of Zika virus was unexpected and poses a challenge in terms of defining exposure. In addition, we've learned a lot about what travel exposure means.

I think that many folks don't define it as travel if they're crossing a border every day to seek health care or for a job. And we've learned quite a bit about how to define travel and how specifically to communicate travel-based exposures, and I think this specifically refers to our border states.

Next slide please. We've really had tremendous success in terms of collaboration on these brand-new surveillance systems,. So the US Zika Pregnancy Registry was not in existence prior to February of last year and we

really appreciate all of the collaboration that's gone into developing this system.

And we are very pleased that funding was available to support the US Pregnancy Registry efforts as well as expanding birth defects surveillance from 13 jurisdictions to 50 jurisdictions over the course of this year.

And this will be really important, not just for Zika, but for us to have a greater understanding of birth defects within each of these jurisdictions. Next slide please.

For those of you who may not have seen this, these are the numbers that we put up on the website every other week. These are the numbers that indicate the number of pregnant women with any laboratory evidence of possible Zika infection.

And this comes from our registries. These data have really helped us develop recommendations, update the recommendations, and will continue through the next season to inform updates and lessons learned.

Next slide please. As we prepare for the next season, one thing that we have begun is a local health department field support project. This is a very exciting project that allows us to place pregnancy and birth defects experts and jurisdictions at a local level and will help in these domains listed here - clinical outreach, community outreach, medical record extraction, data collection, monitoring and follow-up, and specifically referral to services.

So making sure that if there is a family affected by Zika they will get the care that they need. We still have a lot to learn next year and in future years. We

need to identify the full range of health effects among the infants with congenital Zika virus.

We know that what we're seeing are the most severe cases and that may be the tip of the iceberg. We need to determine the optimal Zika virus testing strategies to identify and ends with congenital Zika virus infections, particularly those who may present later on in life, two, three, four months of age.

We need to understand how some of the neuroimaging and testing will help us identify and predict how children will do that are affected by congenital Zika virus infection, so that we can tell families, This is the expectation for your child.

We need to understand, as Carolyn mentioned, the implications of Zika virus RNA persistence that we've seen in pregnant women and in some infants. We need to assess the risk of other adverse outcomes associated with Zika virus infections. So I mentioned third trimester infections and not yet understanding whether or not growth restriction or fetal losses are associated with that.

And then lastly, we need to use all this incredible data that we're all collecting to inform the best clinical management of pregnant women and infants affected by Zika.

So, again, thank you all for your incredible collaboration. We're all in this together and we really look forward to continued collaboration in working with you through next mosquito season.

Christine Cosmos: Thanks, Dana. Appreciate it. We're going to turn to the Laboratory Task Force and hear from Eddie Ades.

(Eddie Ades): Good afternoon. Thanks, Chris. So just to briefly describe some of the successes - we obviously very early on got out the MAC-ELISA serology test back in February and the Trioplex RT-PCR back in March.

We continue, to this day, to distribute reagents for these assays domestically and internationally, and we are continuing at CDC, both here in Atlanta and Fort Collins as well as San Juan and our LRN system, to provide confirmatory testing and surge capacity as you continue to build your own surge capacity and testing in your states.

We are continuing and will continue to do that through this season coming forward, so that's ongoing. Next slide please. The concerns that we have are - obviously there are many.

These are just a few, but the ones that I would like to address quickly are the fact that we have limited data so far on viral persistence and whether that viral persistence has an impact on the testing algorithms.

We're looking into the viral persistence issue with regard to the window of testing itself to determine whether that window needs to be expanded a bit to get more people to do NAT testing as part of the algorithm.

So we're looking, right now, for specific data to assist us in making that decision. We're also working hard to talk about and define better specificity of diagnostic assays.

These are just three that we currently evaluated. There are several others out there and we're continuing to look at those to try and evaluate what might be

the best next commercial assay in comparison to the MAC-ELISA assay which we're currently considering as our gold standard.

The usefulness of the PRNT, we're clearly concerned about the cross-reactivity to two past flavivirus infection and we're working hard to try and find alternative assays that might be helpful.

And so that's ongoing work and I'll discuss that a little bit and one of the next coming up slides. Additionally, the turnaround time from sample receipt to when results reach positions has been a message that we've gotten several times.

And we're now in the process of working to try and figure out ways with some of our partners to pursue HL7 messaging to decrease time from test completion to the results being available to the physician.

And we are currently working through some of those issues and hopefully that will be coming prior to this coming summer season. (Thanks). And next slide.

So we are also very interested in anticipated plans that we're looking at. And, you know, we continue, as I said, to provide SME and reference lab support and diagnostic support when necessary. We are assisting state and territorial labs as needed. And of course we're moving testing to commercial labs and we're doing next research – new research, which is addressed in the next two slides. Next slide please.

So talking about moving testing to commercial labs, we're clearly of mind that if we can get more of the commercial labs to utilize some of the commercial FDA approved EUA assays that that's going to reduce the burden on both the - your labs as well as the CDC labs, so that we can do more of the new

research that's going to be needed with regard to generating more specific and sensitive assays. Currently there are 12 assays for NAT that are approved including the Trioplex assay. And there are two IgM assays currently approved including the MAC-ELISA assay. And so we're hoping that the commercial labs will be able to pick up more of the information and testing that we - would help us all relieve some of the pressure on our own lab. Next slide.

And finally, just to give you a short message about some of the testing that we're working on to improve both molecular and serologic diagnostic tools, and that we'll talk more about on our deep dive when we get there on the 15th of this month - we're working on looking at improving the sensitivity of the rRT-PCR by specimen volume and type of specimen itself. We're looking to evaluate both serum whole blood and urine and we're trying to increase the sensitivity of that assay so that we have greater ability to detect disease in those particular sample types.

We're also looking at for those of you who are familiar with multiplex bead assays. We're working on better, more specific antibodies to look at multiplex bead assays for IgM and IgG response. And then we're also looking at using maldi-tof and mass spec for specific IgM diagnostic tests, as well as we're looking at refining some of our recombinant antigens to put in some of the testing platforms. We'll discuss that more in the deep dive. And with that I'll say thank you very much for paying attention and listening, and I hope that this has been somewhat informative.

Christine Kosmos: Thanks Eddie. Now we're going to turn it to Koo Chung, to talk about blood safety issues.

(Koo Chung): Good afternoon. My name's Koo Chung and I'm with the Blood Safety Task Force. With this first slide I'd like to start with a big brief background on blood organ and tissue collection and screening. First for blood, there are two different types of collections that are performed for blood, which is a whole blood collection and/or apheresis. And of these collections three different types of products are produced: it's red blood cells, platelets, and plasma. The screening available for blood so far: hepatitis B, C, B and C, HIV, HTLV, syphilis, West Nile virus, and now Zika virus.

Next human cells, tissues, cellular therapies, cellular and tissue-based products or HCTPs, the types of products that these encompass our corneas, bone, skin, heart valves, HPCs, and reproductive tissues; and the screening available for these types of tissues are hepatitis B and C, HIV, HTLV, syphilis, cytomegalovirus, chlamydia, and gonorrhea. And next for solid organs, types of products we're talking about: kidneys, hearts, and livers. And the screening for solid organs is similar to that of blood and tissue. Of note here, only blood is currently screening for Zika virus. Also, blood and tissue is regulated by FDA, but solid organs are under the purview of the Health Resources and Services Administration or HRSA. Next slide.

So specifically related to blood safety: there have been no confirmed Zika virus transfusion-transmitted cases in the United States, although probable transfusion-transmitted cases have been reported in Brazil. The FDA issued industry guidance on February 2016 and revised their guidance on August 2016. The revised guidance states that all blood collection centers in the United States and territories should perform screening on all donations using an FDA authorized IND or use an FDA-approved pathogen-reduction device for plasma and certain plated products. Next slide.

This is the homepage for the Blood Safety Task Force and the homepage for Zika and blood transfusions. We have some brief background information, but at the top of the page there are two links that you can click. One is on the left, "blood and tissue collection centers." And on the right, "areas at risk". If you click on the link for "blood and tissue collection centers," other links are available for all of the FDA guidances, as well as additional resources, and finally, a list of all of our links for all of our partners' web sites.

If you click on the "areas at risk," next slide, the areas at risk for locally acquired vector-borne Zika cases pages is displayed. The areas listed under the areas of active transmission in the US -- you see that in the middle of the page -- can defer from those issues for tribal guidances because of additional concerns about potential risk for tissue safety. As you can see here currently Miami-Dade County and Cameron County, Texas are listed as areas of active transmission as of July 29 and December 9, respectively. Also previously listed area of active transmission for Zika virus was Palm Beach County, which was from August 24 through November 2. Next slide.

So for tissue safety, FDA's March 2016 guidance includes Zika-related recommendations for living donors as well as recommendations for non-heart beating or cadaveric donors. Again you can find the links to those FDA guidances on our website. For organ safety, no Zika guidance has been issued by HRSA, but the Organ Procurement and Transplantation Network or OPTN has issued a statement on Zika virus on July 2016. For more specific questions related to Zika and organ safety, please contact the Blood Safety Task Force. Next slide.

So important to note that blood donations screening can help public health identify new areas of transmission. And I believe our Epi folks/colleagues also mentioned this. But also, state health departments and blood banks should

ensure procedures are in place for sharing information regarding positive donors. And we encourage states to report presumptive viremic donors into ArboNET as soon as possible. State health departments and tissue banks should also strengthen their communications regarding Zika virus and tissue donors.

Christine Kosmos: All right.

(Koo Chung): Thank you very much.

Christine Kosmos: Thanks so much Koo. Now we're going to move to the Medical Investigations Team, Maleeka Glover.

Maleeka Glover: Hi. Good afternoon again. Thanks everyone for joining. I really just wanted to remind everyone about our CERT team, the CDC Emergency Response Team just so that we put it on your radar that it's a valuable resource, that you are welcome to request if/in the event that there's local transmission. This can be requested by state, local or tribal jurisdiction or health authority. And the request can be made directly to the Emergency Operations Center which is 24/7, or can be made directly to myself or my team as well.

Essentially the CERT team is here to provide on the ground or remote technical assistance in the event of local transmission. Support will be provided in the areas of Epi and surveillance, vector control, lab, blood safety, risk communication, expertise regarding pregnancy/birth defects and family-planning, as well as response management and logistics. Thus far for the Zika response we've have - we have provided CERT teams to Utah, Texas, and Florida. We've had great success in providing them support as well as coordinating with these states on focused support on the ground, as well as remote support for what they really needed.

The CERT team, although it has a broad scope of senior-level subject matter experts, can be customized to whatever the state, local, or tribal jurisdiction needs, and can be, you know, sort of deployed in the staggered approach. But we are prepared to have a team on the ground, after all of the logistics and admission is worked out, within 48 hours.

We are currently in the process of planning a few tribal visits to coordinate possible CERT support in the future, if needed. But at the moment, we're on standby for assisting the states and local and tribal jurisdictions as needed. So if there are questions with regard to the possible CERT teams in the future as we're sort of moving forward towards the next mosquito season, please feel free to reach out to myself or, like I said, the EOC and they'll be sure to get you in touch with me. I also want to thank all of the rest of the task forces that are on the call as well as the states that we've worked with so far with regard to CERT teams. Everyone has been really great and eager to provide support and be as helpful and useful as possible. So thanks to - thank you to everyone. And again if you have any questions about the CERT Team please feel free to reach out to me directly.

Christine Kosmos: Thanks Maleeka, appreciate it. Now we're going to move to the Joint Information Center, Erin Connelly.

Erin Connelly: Thank you so much. I'm Erin Connelly, the Zika Response Joint Information Center Co-lead. Zika is a serious health threat, but it also poses very unique communication challenges. There are many risks, many modes of transition and a lot that we still don't know about the virus and its health effects. We have a wide range of distinct audiences with varied communication. And our guiding principles for the response are ,first of all to base our strategy on evidence, to stay coordinated across all levels of government, to use audience

and channel research to inform our strategic and tactical decisions and to evaluate as much as possible in real-time to adjust and calibrate the strategy. Next one.

So what have we learned after a year? Intensive comprehensive communication and marketing efforts can influence awareness and behavior. Based on some initial research we've done internally, we have seen differences between pregnant women in Puerto Rico and the US Virgin Islands, and we can see that our intensive efforts over the past several months in Puerto Rico are having some effects.

However, we also know that not all pregnant women in areas at risk are aware of Zika, what it can do, and how to protect themselves. Among other audiences who may contribute to transmission, people seem to be most aware of the individual behavior of wearing insect repellent, and at the community level, behavior of dumping accumulated water both in individual spaces and around the community.

Finally, Zika is starting to fall off the radar a little bit, as others have mentioned. The visibility of the disease and the lack of symptoms for many, and also not seeing visibly affected babies at this point may be leading to complacency among some groups. Next slide. Over the past year we have worked and you all have worked to really create written strategic communication plans to guide our collective effort. We have developed our plans and we continue to update and refine these. We have placed a wide variety of planning and communication tools online, that we hope you access and utilize. Our strategy does incorporate core risk communication principles. And all of the activities that we develop are aligned to achieve the very specific goals and strategic objectives of the plan. This should be both the

overarching plan that we have and for your individual state and local jurisdiction plans. Next page.

So we will continue working with you all to coordinate and align our efforts and our messages. We'd really like our activities to continue to amplify each other and not compete with each other. We need to remember to communicate with our audiences about what they care about and to really try to find a balance with what we care about. And critical to that is meaningful collaboration with community partners. It's a really going to be essential to reaching our many distinct and diverse audiences.

We should also all consider that people who have an opposing view can often help us in identify needs and gaps and how to address those. Next slide. So to wrap up, at this point - and this is just a preview of what we'll be doing in our deeper dive - remember that as you go along in your communication efforts however you are able try to access and use research to develop and inform your strategy. And you may have many convenient and accessible sources of data to at least check community knowledge and sentiment, both about the epidemic and about any proposed interventions you're thinking of deploying. Consider adjusting your strategy and tactics using what you learn. You might change tactics, messages, spokespeople. You might adjust your communication mix to really update and reinforce some of the key information you're trying to get across. And, as we mentioned before, as you engage with and listen to some of those diverse community perspectives that may help you to identify and address gaps.

We internally are working on all of this right now and look forward to getting a more in-depth view in our session on March 22. Thank you very much.

Christine Kosmos: Thanks so much Erin. Now we're going to move to our Policy and Partnership Team, Melody Stevens.

Melody Stevens Hi. Thank you so much for your time today. My name is Melody Stevens and I'm representing the Policy and Partnership Unit. I want to talk to you today just a little bit about what we do in terms of partnership within the Zika response. So our team's mission is to work closely with the CDC Foundation to grow relationships with public and private sector partners and support a critical response teams. Three specific priorities for the partnership team that are set by the incident managers are: protecting pregnant women, ensuring access to contraception, and executing a comprehensive vector control program. Next slide.

I want to talk to you briefly about some of the work that we've done and how partners have played a role in that. The very first intervention within the response that was supported by a significant amount of partnership support was the Zika Prevention Kit. Some of you may be familiar with this. It is meant to be an educational tool that includes information about Zika prevention and then Zika prevention personal protected products like condoms, repellent, bed nets, and (unintelligible).

We worked closely with our colleagues at the CDC Foundation to develop and deploy Zika Prevention Kits initially to Puerto Rico by day 32 within the response. Much of that was the result of strong partnerships that the Foundation developed. (unintelligible). Private sector played a strong role in making that intervention happen. Similarly, we've worked on the Zika Action Planning Summit and most recently the Vector Summit with the Foundation and our private sector partners working to convene partners and drive the field forward. And we also worked with CDC Foundation and colleagues to produce a Deten el Zika, a communications campaign that spans the Americas

region targeting - targeted in Puerto Rico, but done in collaboration with our colleagues at PAHO We also worked closely with the Foundation and our colleagues on Pregnancy and Birth Defects Task Force to develop the Zika Contraception Access Network.

There were a great deal of private sector engagement in this particular project and this is a Foundation-led project that CDC provided the technical support to. And we received major contributions from the (unintelligible) that happened. And finally, community engagement is a pillar of the work that we do. We've participated in the Zika Action Days that were done in Puerto Rico and US Virgin Islands and in Miami, Florida. Zika Action Days are hosted by private sector partners or in conjunction with states and localities. And CDC provides support by engaging private sector partners that come on scene and donate products. And we provide educational resources to community members. They've been really well received, and it's a model that we're attempting to scale into a toolkit that can be used by anyone who's looking to do Zika Action Days in their areas.

Taken together, in the nine months before CDC received the Zika supplemental funding, the Partnership Team helped us secure more than $50 million of resources for the response in partnership with the CDC Foundation, including the single largest donation ever to a response. Next slide.

If you'd like a little bit more information on want some of these partnerships look like, I would encourage you to go to the White House blog on Zika and Business Engagement. There are two blog posts put out by the White House that summarize some of the private sector engagement in Zika. And two things that I wanted to say that are applicable for procuring for the next season: first, is to think boldly about how the - how to engage the private sector in support of your needs. We found a great deal of receptivity from the private

sector. And we know that when we can communicate the needs, they are often willing to step up and to help with very innovative projects.

And the second thing I wanted to leave you with is sort of specifically - we as a team have some national level partnerships that we can often lean on to help meet your needs. So as an example, we have developed a pharmacy partnership model leaning on some large chain pharmacies where they've developed Zika prevention sections in their stores, where they're in areas where they have – we've seen local transmission. So throughout Puerto Rico and in the US Virgin Islands, there are sections of the stores that have condoms and repellent right next to CDC messages and materials about Zika prevention. These same drugstores also are prepared to do the same thing in your states, should we see local transmission. So I mention this to say, if you have specific needs or you're thinking about how you might partner, reach out to us and we would welcome the opportunity to speak with you and see how we might be able to leverage some of our national partnerships in support of what you can do locally. And also, I would say consider developing a local or state level partner engagement plan that includes public-private partnerships. And I can take any questions that you might have.

Jim Crockett: Melody, you want to hold off on the questions until the deep dives that's because of time and the schedule we're running through here. So thank you very much Melody Stevens from our Policy and Partnerships Team -- much appreciated. If I can turn over next to John-Paul Mutebi, who's with our Vector Issues Task Force. John-Paul, are you available? John-Paul, you may be on mute.

So Robin, then the operator can I verify through you if we still have John-Paul Mutebi online with us? I know he was in a travel status today.

Coordinator: I do not show that he's connected. Stand by one second please.

Man: All right, Deputy IM, Michael Beach will step up and swing for us. Thank you sir.

Michael Beach: Okay well hello everyone. John-Paul - actually the Vector Summit that CDC held was Monday and Tuesday. Everybody's in travel status, so something must have happened with John-Paul's flight in that. What I wanted to go over today, I think is really the - some of the vector issues. I think we've got some really exciting things that are kind of occurred because over the – because of the past year and the events.

First of all, ELC M1 funded *aegypti/albopictus* surveillance and insecticide-resistance testing in the US. That funding was moved out with FY '16 funding of $18 million, awarded to 63 entities including CONUS. December we put another $27 million awards into 223 entities, mostly southern CONUS states, Hawaii, and territories in that. So I think there was enough there along with other funding we hope to help move things forward.

As far as progress moving forward, I think one of the big things that we tried to do was put resources into the state, so that we could increase the amount of trapping and species identification that was done. And so basically there's been a second *Aedes* survey done. This update is a survey for county level records includes data through December of 2016. And we see kind of substantially more data when we look at the new maps and filling in gaps, where we didn't know that testing had been done. So records for *Aedes aegypti* came in from 220 counties across 28 states and DC. Thirty-eight of those counties were new because of resources, et cetera.

Again if you look at the next slide where we look at data, I think it's really illustrated here by data coming in from Texas. And you can see the increase from 2015 on the left-hand side to adding into 2016 testing. We see many more counties coming in with so much more granular data. And so 65 counties having documented the presence of both species, 55 counties in Texas documented the presence of *Aedes albopictus* only and 21 *Aedes aegypti* only.

And so I think we have a more refined map. It doesn't change the overall findings as we start to talk about the kind of what do we call it, the cloud map that's there from what we can see. But I do think that we have much more cause in this than the data coming in because of this more granular testing done. And I'll just check to see if John-Paul is on the phone. John-Paul?

John-Paul Mutebi): Hello. Do you hear me now?

Man: Yes we do.

Michael Beach: We do. Would you like to pick it up with the next slide?

John-Paul Mutebi): Well I thought you are doing really well there but anyway...

Michael Beach: MosquitoNET I think or if you want to say anything else on the second survey please feel free. Thanks.

John-Paul Mutebi: Yes as you are saying that we are looking for more granular information about one, the distribution of *Aedes aegypti* and *Aedes albopictus* here in the United States, and also to find out about the (reactive) abundance because that is one of the measures we use to get risk. And also, we are looking to find, we're evaluating the thresholds of infection. You know, that is something we don't

have a whole lot of information about because we haven't experienced widespread transmission of the virus around here. But that is one of the major goals. Next slide please. I'm going to - yes this one shows the...

Man: John Paul, we're losing you a little bit. Can you stay close to the mic?

John-Paul Mutebi: Excuse me?

Man: So please stay close to the mic. You were fading in and out.

John-Paul Mutebi: Oh I didn't hear you.

Michael Beach: Sorry, just lean into the mic, John-Paul. You were just fading out. I think you were moving away from the microphone.

John-Paul Mutebi: No. I've got a headset so there's no leaning out of it.

Michael Beach: Oh.

John-Paul Mutebi: Okay.

Michael Beach: Okay. You sound good now.

John-Paul Mutebi: Okay. Now there's a MosquitoNET online surveillance and in Texas a resistance data reporting form that is available for all those that are participating in the project. We have been collecting some information as the former speaker just said. But we need a little - we need a whole lot more to get a much better picture of what actually is going on. But we are getting there because what has just been happening is that we have been in the mosquito - like out of the mosquito season. And when the first funding went out, it went

out at the time where the season was mostly winding out, except to the southern most parts of the United States. So we are hoping to get more and more data by next year, so that we have a much fuller understanding of what is going on.

So while we are waiting for that, what we did is sent out a survey to try to find out about what the reports are from the various jurisdictions that contributed to the first one. And we ended up in some reportable information that has filled up most - some of the maps. But, we need some more information to end up with more concrete information. Also, at the same time we are collecting information on insecticide resistance, which is something that has not been done before. So in your case of outbreaks, we can be ready to use the insecticides that are going to be effective. Next slide please.

Also some of the other outputs you are moving towards is like standing up on a - with a platform of more standardized and consistent vector surveillance. Now don't get me wrong, they'll never be something like standard for the entire country, but we need some kind of data collection in that we can compare what is going on in the various regions of the state. Also I've been talking about the mapping that is some of the information we need so that we know where the vector species are. And also the data that is being generated can be used to develop predictive models on much smaller scales. Next slide please.

Now these are some of the ongoing activities. You probably have heard about them that there have been some centers of excellence that have been funded: so far, a total of $40 million - and that includes Florida, Texas, New York, and Wisconsin. Basically, these are going to be training vector biologists that can be assimilated into the field, you know that could develop data and work on some of the projects that are currently lacking and also to be ready for any

other viruses that might end up in the United States. The second one is the development of the EPA registration for nootkatone. That has been worked on for a long period of time. Then the third one is the funding of some of the bigger BAAs, which is some of the projects that extended out there to get more information on mosquito control and surveillance. Also the signing of AMCA to improve the practices and the training of vector biologists that exist. I think that that is the rest of it.

Man: John-Paul, thank you very much. And we are looking forward to our upcoming deep dives in each of these topics you just heard earlier. Just kind of a quick overview because of time we do not take questions at this session. But I would ask if you have questions, we can queue up for the upcoming deep dive more two-way discussions. Please send those forward to preparedness@cdc.gov. And that's preparedness@cdc.gov. We've had a few questions come in we'll queue up as an example, a couple questions about what is known about Zika acquired in the early post-natal life. And we'll be looking at that. Queue that up with the appropriate discussions and get those type of questions set up. So please let us know, otherwise we'll have that shared discussions going on a little later.

Again on the slide in front of me and toward the end of your deck you see our current teleconference overview dates as we know them. The Laboratory Task Force, for example, will do a domestic and Pacific and Caribbean type discussions, two sets of different types of issues and challenges they want to discuss. Let's split that up. The other agencies are set up to do the same thing as we do that.

The schedules here as we know it. We will be sending invites out to these shortly and let you know of any changes. Again, we ask you to extend the invitations on these as you see fit and appropriate. We'll kind of go from there.

So Michael if I can I can turn it back over to you for Deputy IM's side of the house.

Michael Beach: Sure. Thanks so much again for spending the time with us today. I do want to just say a few words about that this is March 1, 2017. Thirteen months ago is close to when we were activated. I mean it is an amazing ride since that time and how we've prepared ourselves. So I think as we approach 2017, as you've heard, let's not forget what we've done over the past 13 months. We're much better prepared for moving forward.

So, you know, we have improved surveillance for cases for blood safety, for birth defects, for mosquitoes, improved diagnostics or diagnostics that we didn't have before. We are prepared to move rapidly and how that work with our partners and with all of you was that I think we were on course. We were able to contain things. We can improve yes, but I think we're on course with the tools that we've been creating. We've learned a lot around communication and this is about communication, community engagement, and understanding how we move forward. That's built through partnerships and using the policy and partnerships types of folks that we've done.

And we've really seen some big successes on the vector side of things and particularly in Florida. And so I think there are learning lessons there. And for the rest of you who are collecting data out there, so we have our eyes on the ground from the mosquito standpoint, you know, I think, that really makes us much better prepared for the season. And so I think as we go into the deep dives as (Jim) said, bring those questions, send them beforehand, queue us up, or bring them with you, but please make sure that you come to those discussions and they are discussions, so that we're learning and we will incorporate this into the CONUS guidance and everything. But I do make

sure that you forward those invitations to the key people you think should be there.

So let's make sure the pregnancy birth defects - we have maternal and child health birth defects and other folks on there, not just epidemiologists or laboratory people. We really need to make sure the full court press of team that you've got available is on those calls to help inform us. We've learned even in the past few days how much better off we are when we work as a team between CDC and all of you. So we really appreciate the time that you've put in on this. We have no crystal ball but again we anticipate as quote, Lyle Petersen, "predicting arboviral outbreaks is really impossible."

And so, what we do think will happen, certainly in places like Puerto Rico, is that there has been infection in people there, so fewer people will likely get infected this coming season because of some level of conferred immunity. Certainly we think that travelers - there may be decreased transmission into countries where we were visiting the Americas before so that may mean fewer travel associated cases. But we don't anticipate that we won't have transmission here. So we need to prepare as we did last year. So again, transmission occurring - we hope - with decreased intensity. But the preparation has really got to be at the same level.

And so we look forward to working with all of you, hearing those great questions as we move forward. And again thanks so much for spending this hour or so with us to go over this. We look forward to speaking with you in the next couple of weeks.

Man: Thank you very much, and if we're missing any specific area or a function area you want to discuss also send that into preparedness@cdc.gov. Let me

echo that and thank you very much for your time. And Robin),can you stand by after we complete the call?

Coordinator: Yes and thank you. This does conclude today's conference call. You may disconnect your lines and thank you for your participation.

END