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Public Health Institute
Dialogue4Health Web Forum

"The PHTC Network's Collective Role in Helping the Public Health Workforce Prepare for and Respond to Infectious Diseases: What We've Learned from Ebola"

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[Event will begin shortly.]

>> Laura Lloyd: Hello my name is Laura Lloyd and I am the Director of Programming at the Region IV Public Health Training Center. I would like to welcome you to today's webinar. For those joining us from the northeast United States, I want to wish that you are warm and safe right now. We're thinking about you.

I'm going to be facilitating today's webinar along with Star and Joanna. I want to give a shout out to Star she's provided in pulling this webinar together. Let me take a few minutes to tell you about technical details. If you experience technical difficulties during this session, dial 866-229-3239 for assistance. Or if you have trouble dialing in or hearing the webinar, please post a message in the Q and A box and Star will assist you.

Home Team Captions and Regina will be providing closed captioning for today's webinar. You can see the caption text in the media viewer panel which can be accessed by clicking on the icon that looks like a small circle with a film strip running through it. This icon can be found at the top right corner of your screen. And on a Mac, bottom right hand corner of your screen. If you want to take a minute to notice at the bottom of that media viewer, there is a show/hide header link. If you click on that, it will remove the header and give you more room to read the captioning. Remember, if during the webinar, another window causes the media viewer panel to collapse, you can reopen the window by clicking on the icon that looks like a small circle with a film strip running through it.

While our panelists are presenting, we're going to have everyone's phone and computer on mute. Then when we get to the end, I'm going to show you how you can ask a verbal question by raising your hand. If you have any questions feel free to add them to the Q and A box on the right side of the screen so we can address those at the end. When you add a question, submit questions to all panelists. We would ask you if you have a particular question for one presenter, please indicate that in your question.

Once the webinar ends, a survey evaluation is going to open in a new window. Please take a moment to complete the evaluation. We want your feedback on this. Also the recording and the slides will be emailed out to you and everyone in the PHTC network after the webinar.

I'm going to ask Joanna to do me a favor. Would you mind opening the polling question please? Thank you. Before we begin, we'd like to ask you one polling question which is on the right side of the screen right now. Select your answer from the available choices and click the submit button. I am attending this webinar and the response choices are A, individually. B, in a group of 2 to 5 people. C, in a group of 6 to 10 people or D in a group of more than 10 people.

Select your response and click submit. Once you are done, click on the media viewer icon to bring back closed captioning if it has collapsed.

At this point, it is my pleasure to turn the program over to Miryam Gerdine. She is the project officer at HRSA and overseeing managements 1 through 5 at the training centers. Go ahead.

>> Miryam Gerdine: Thank you, Laura. Welcome to today's webinar. The network collective role in helping the public health workforce prepare for and respond to infectious diseases hosted by region 4 of the training centers. In September of 2014, provided millions of dollars to 10 regional public training centers for the 2014-2015 budget year. The purpose of the regional public health training centers program is to improve the nation's public health system by strengthening the technical, scientific, managerial competencies of the public health workforce. In clap ration with HRSA, the training centers program together are comprising a national program that will serve all 50 states, the district of Columbia, the Virgin Islands, Puerto Rico and the six U.S./Pacific jurisdictions. Region IV would like for me to extend special thanks to all the partners who have assisted in the development of this webinar including the National Coordinating Center for Public Health Training, Region I Public Health Training Centers, the Health Resources and Services Administration, centers for disease control and prevention, National Association of County and City Health Officials, Association of State and Territorial Health Officials and Dialogue4Health. I would like to introduce Vinny LaFronza. He serves as president and CEO and honored to serve as the principal investigator for public health training. Worked in public and private sectors and public health and human services programs. His 30 year career continues to focus on policy development and implementation efforts to benefit the public's health and wellbeing. Vinny will tell you more about the purpose of the webinar and provide you with an update on the Ebola related training center and the data collected. Please go ahead.

>> Vinny: Thank you so much. As I reflect on our work in the newly forming network, I am reminded of the words of Andrew Carnegie. Teamwork is the ability to work together towards a common vision. The ability to direct individual accomplishments toward organizational objectives and it is the fuel that allows common people to obtain uncommon results. This network is all about that type of teamwork. We're seeing this with the Ebola response and this webinar.

There is Ebola related training that takes place in and out of the training network. And I thank all of you for participating in that data capturing series. Overtime, we will be posting more information on our web site about the training offerings that you all have been engaged in. And I know we are sharing it with a whole network.

In our webinar today, if we could go to the next slide, that would be great. In our webinar today, I want to talk a little about the overview of it. We're going to definitely highlight high level topics that frequently have been identified for trainings in public health workforce. And all the lessons that are related to

infectious diseases. We know Ebola is not our most significant threat in the United States. But we can learn a lot from what has happened here. We can share training resources related to these topics. And again, thank you to CDC, NACCHO and ASTHO. We have folks here sharing what they have developed. And that's part of the beauty of the network. We're leveraging all of the assets across the country. And we will discuss and identify training priorities at the public health training network can work on to help advance workforce and prepare for the next infectious disease outbreak.

I would also just like to mention that many relevant and affective training offering that pH TCs have developed by other organizations. And we will continue to support that. You can see on our outline of today's webinar, we have a lot to cover. We are going to get right to it. Next slide, please.

The national coordinating center as you may know by now has three critically important goals. The first has to do with building a sustainable and coordinated network of regional public health training centers. Very important goal and we are starting to achieve that. We are also co-creating and modernizing and standardizing a best in class curriculum. That's a very lofty goal and we have a lot of work to do together as a team.

And the third and most importantly, distribute training evenly to all communities and tribes to advance the nation's public health workforce. We're talking about shared vision, long lasting cross pollination of resources and equal access for all communities and tribes.

In the case of what we are learning from Ebola, many important implications for our work in protecting all communities from infectious diseases. And sadly, per CDC's January 23rd report in 2015 as an update. The world community lost so far 8,690 human lives and counting. We are more fortunate in the U.S. as we know. We have had only four cases and one death. But there are lessons to be learned from our local and national responses. Among many lessons that will be explored today. I would argue we've learned dedicated public health funding. Affective coordination, shared vision, even distribution of skills and capacities, communications, plans and how these factors play out in local contexts, both politically, technically, and practically. All require cross pollination of ideas so we can c-develop a curriculum for the broad workforce. And these can be applied to other infectious diseases as well. And this is all part of our mission at the national coordinating center to help be part of that catalyst and movement.

The national coordinating center is working closely with our terrific colleagues at CDC and NACCHO and ASTHO. And working with others to ensure maximum coordination of resources. And we look to CDC for reliable imbedded information on Ebola response. We can have the next slide, please.

I would encourage PHTC's to use the information found on the web site. You will also find that on our web site at the national coordinating center, we will be taking highlighted resources that link to CDC and other relevant information sources. Next slide. We will post high priority items for you that we find most relevant to your work. And should you identify resources that you are finding

useful to your efforts and want them posted here, send them to us at the coordinating center.

It's my pleasure now to introduce Paul McKinney. Dr. Paul McKinney is professor and associate dean at University of Louisville School of public health and information sciences. Began career as epidemic intelligence service officer. And he has been a leader at the university center for health hazards preparedness and several federally funded projects since 2003. Thanks for sharing your expertise with us today. It's an honor to work with you. And take it away.

>>Paul McKinney: Thank you very much, Vinny. Next slide, please. Due to advances and the need to keep staff updated, there will always be a demand for training in the roles in health departments. Known well to almost all of you. But I'll highlight a few of them here. Include disease surveillance, laboratory detection. Epidemiologic investigation of out breaks. Proper use of vaccines and antibiotics and screening and testing guidelines that might be appropriate for early detection of diseases in populations. Next slide.

However, health departments now have new or increasing roles in infectious disease control and prevention. Some of these are required during the recent Ebola crisis. Many of them come with training needs. For the emerging roles facing health departments include healthcare quality assurance, assessment and policy development. Training needed here might include serving as partners for hospitals needing training, quality assurance, assessment and policy development. Coordination of services within public health and healthcare systems. Development and sustainment of infrastructure and exchange system. For example, dealing with communication inoperable ability. Engagement of partners to extend the reach of public health messages. Here we might look at creating and using tools and channels for public health communications including risk communication that we'll hear a lot about shortly today. Provision of culturally appropriate preventive healthcare for a diverse and aging population. Which brings a new emphasize on cultural. And a detection of agents and diseases within a global context. Next slide.

One resource that is available to guide our efforts in this regard is the CDC framework for preventing infectious diseases. This is a road map for improving the nation's ability to prevent diseases and recognize and control emerging threats. The purpose of the guide is to -- the purpose is to guide the infectious disease activities and public health action particularly in a time of resource constraints. There are three primary elements the framework addresses including enhancement of the already strong public health fundamentals to develop high impact interventions like new vaccines, antibiotics and other strategies for controlled diseases and sound health policies. The latter two are really activities that are dealt with at a strategic national level and it's the first item the public health fundamentals we're dealing with and focusing on today. Next slide.

One of the clear public health fundamentals is information sharing. To describe the process for us, we have today Abbigail Tumpey who is the

associate director for communication science at CDC's division of healthcare quality promotion. Abbigail handles communications for healthcare safety issues including healthcare infections, blood and tissue safety, medication safety and vaccine safety. Her team is responsible for communications for the national healthcare safety network and numerous patient safety campaigns. Abbigail, please go ahead.

>>Abbigail Tumpey: Thank you so much. As Dr. McKinney was mentioning, one of the things we had to do rapidly was ensure that public health had resources to work with facilities and workers directly to make sure our front line healthcare workforce was appropriately trained and ready to manage a patient with possible Ebola. Next slide, please.

So one of the things we actually did. We trained healthcare workers both internationally and here in the United States. So for example, some of the work we did resulted in over 18,000 healthcare workers being trained on infection control. We trained hundreds of U.S. healthcare workers going to West Africa. To provide care and Ebola treatment units. Today I really want to talk about what we did from a U.S. perspective to ensure healthcare workers in the United States were trained well. Next slide, please.

So there's a lot of challenges and needs when you look at healthcare training, healthcare workforce. So, for example, there's many different healthcare facility types. There's different levels of preparedness. Protocols in place. The education levels may be different from front line healthcare worker who may be at the front triage desk to doctors who may be doing long-term treatment. And healthcare providers play a variety of different roles. One of the things we certainly saw is infection control is not a one size fits all. Can't replace from one facility to the next. What worked in Nebraska may not work for another facility. We really needed tailored guidance and resources for each setting and provider types. There are a lot of players at the table. So we really needed to have clear consistent messaging.

We were working with federal and state partners. Professional organizations and also through a variety of list serves that were connecting with healthcare workers directly. And certainly, these organizations, federal partners, if you look at these circles, states were connecting with healthcare workers and professional partners in their states directly as well. You could have arrows going in multiple different directions. Next slide, please.

One of the things that we defined pretty early on is any education in training for healthcare workers needed to be action oriented and modular so it was specific to the audience needs and roles. It needed to be on demand. It needed to be mobile accessible. One of the things we realized quickly in the start of the Ebola response is that 50% of people coming to the CDC web site were coming from mobile devices. And at the start of the response, the CDC web site that had the Ebola information on it was not actually mobile accessible. So very quickly in early August, we redesigned to make it accessible. We wanted to have things endorsed by multiple Stakeholders and partners be

available in a variety of formats. And promoted through multiple channels. Next slide.

So one of the things that we did to increase outreach is we actually started conducting daily and weekly calls with partners and regular webinars. For example, one day in October where we had 10 partner calls or webinars that happened to be scheduled in one day. So over the course of the start of the response in late July early August to the end of the year, we've conducting more than 150 webinars and conference calls with a variety of different professional organizations and just through this mechanism alone reached 150,000 individuals.

If we go to the next slide, you can see the online training resources we created. We partnered with the Johns Hopkins Armstrong patient safety institute. APIC and SHEA to come up with training resources very quickly with regards to personal protective equipment. When CDC updated our recommendations in October, we needed to have easily accessible information for people to understand how to appropriately put on and take off the PTE. This was actually a great collaboration that resulted in tailored materials where you can choose what type of PPE you have and you'll get a tailored video that fits your need. Since we launched this at the end of October, it was viewed over 320,000 times. The people viewing it logged nearly 4,000 hours of viewing time. They really were watching it. We put public/private partners in place. We started working with Medscape. The arm of WebMD health. The consumer web site. We started working with them during H1N1 in 2009 and worked with them to create a variety of resources for clinicians and just these alone were viewed over 370,000 times.

If you go to the next slide, you can see some of the events we did. We did multiple live training events. And this was actually something new for us where we partnered with groups like healthcare unions, partnership for quality cares, coalitions, state health departments to pull three back to back trainings off New York City, Los Angeles and most recently Philadelphia. The New York City event which is featured on the next slide took place the day after CDC updated our personal protective equipment recommendation. And during that time, if you kind of think back, we had the two nurses from Dallas who had just become diagnosed with Ebola. So there was a lot of fear at that time. During this event, more than 5,000 people showed up and if you look in the next slide, we had more than 53 media outlets. And you can see the interest in this picture where the media crowded the stage in order to be able to see the personal protective equipment demo. This resulted in really kind of a turning point for the discussion with regards to ensuring healthcare workers are safe and really started to ease the fear that was out there. Next slide.

We also worked with partners like American Medical Association to do special events at some of their standing conferences. This is an example of the CDC's Dr. Arjun Srinivasan doing a live event at the Dallas Texas AMA conference this year. Next slide.

So we have a variety of resources that we put online. We actually just recently redesigned the healthcare worker component of the CDC Ebola web

site. If you go to the web site that's linked on here and you look for the healthcare worker button that's right near the top, you'll actually see the redesigned look of the web page. One of the things that we wanted to put in place very quickly is a way for people to easily digest and implement our information. Instead of just putting the recommendations out, we put out things like these algorithms, checklists, step by step guides. The fact that our PPE guidance gave a line by line step of everything you needed to do to protect yourself was really a new way for us to ensure that CDC recommendations were easily implemented within healthcare facilities. Next slide.

So I think in looking ahead before the next crisis, we certainly have appreciated that one of the things that worked well in this case and need to have in place in the future are clear concise communication plan recommendations and educational resources. Obviously, knowing our audience. So certainly, we learned during this response there were a variety of different healthcare workers who may come in contact with a patient with Ebola. And so having information that really reaches all of them and resonates with all of them is key. Engaging key partners and Stakeholders and partnering with decision makers and experts. Going back to the one example of the PPE guidance. We worked closely with Nebraska. Experts like infection prevention from APIC and SHEA. And also groups like doctors without borders. Whether this would really work in practice. And then we also worked with many facilities to attempt to implement this and see this in real time practice.

And then also emphasizing importance of infection control and I think certainly that was one of the major lessons learned out of the Ebola response was the need for us to improve infection control across the U.S. healthcare facilities and certainly this will be something as we move forward both public health and healthcare together and in our collaboration is ensuring that we can help the U.S. healthcare system to improve infection control which would help us for things like Ebola but things like MERS or the next pandemic flu we may encounter. Or every-day threats like antibiotic resistance.

So I'm going to turn it back to Laura who is going to talk to you about how to submit your questions and we're going to take questions at the end. But my contact information is here in case any questions are not answered. You are welcome to contact me in the future. Laura, take it from here.

>>Laura Lloyd: Thanks so much. That was great. Very interesting. I wanted to thank Abbigail as well as the other presenters so far and remind you about how we are taking questions which we're going to do at the end. Just a reminder that first of all, we will be sending these slides out after the webinar. And if you want to submit questions, we encourage you to do so by typing in your question in the Q and A box to the right. And submitting your questions to all panelists. We will take these questions for Abbigail or the others at the end of the presentation. And have a way to take your verbal questions. Paul, turn the program back to you to introduce the next portion of the webinar.

>>Paul McKinney: Thanks very much. And thanks to you, Abbigail. During the

next portion we'll be sharing the priority knowledge skills and abilities need to have to prepare for, prevent or respond to any infectious disease in the particular challenges we face in dealing with Ebola. The topics will be presenting risk communication, isolation and quarantine and public health workers. As Vinny and Abbigail did, CDC, NACCHO and ASTHO shared relevant training resources related to these topics. And just a reminder, we'll send you the slides after today's presentation.

At this point, I'd like to introduce you to my co-presenters. Molly Gaines-McCollom, many public health emergencies including infectious diseases such as Haiti, Middle East respiratory syndrome and the Ebola outbreak in West Africa. I will present the portion on isolation in quarantine and turn the program over to Pat O'Neal who will present protecting the public and public health workers. Pat is the director for health protection for the Georgia department of public health. Responsibility for emergency medical services, trauma, emergency preparedness, epidemiology, infectious diseases, immunizations and environmental health. Thanks to Molly and Pat. Molly, please begin.

>>Molly Gaines-McCollom: Thank you so much. And thank you for the chance to present. Risk communication is a big topic. I only have a couple minutes to present. I'm going to hit some of the high levels specifically for infectious disease outbreak. We won't be able to talk about everything.

So in infectious disease outbreak, we want to use the same communication principles in any emergency response. And these six are taken from CDC's crisis emergency risk communication program. So just reviewing them quickly. First you have to be first. Your audience tends to believe the very first message they hear and they are going to compare every piece of information they hear to that very first message. So you need to make sure your message gets out there as soon as possible. And that's true even if you don't necessarily know all of the information. We never have all of the information that we need right when we need it during an emergency. Even putting out a message saying you are aware of the situation, potentially you are aware of a new case or whatever the message is. Telling people you are there, you are paying attention and setting an expectation for when you can get them information. Great way to hook your audience from the beginning and more important in infectious disease response.

It's not enough to be first if you are not right, which is common sense. In order to be right, you can't engage in speculation which is a lot more difficult than it seems, especially, when you don't have information you need. And remember that if you do provide information that turns out to be incorrect, you receive bad Intel in the beginning, make sure you tell people the correct information as soon as you possibly can. Don't be worried about making it seem that you don't know what you are talking about that you've made a mistake. If you are transparent and let people know the correct information, research has shown that audiences will be more forgiving than you think they will be. And helps to inspire more credibility and trust.

The third point, to be credible. Doesn't matter what you say if people don't believe you. If you yourself aren't credible for whatever audience, find another spokesperson. And if your organization isn't believed, for whatever reason, by the population you are trying to reach, find a partner. Work through a partner organization to put out the correct information. It matters less that this information comes from your agency, your organization than it does that life-changing information gets to the right people.

Number four, to express empathy. Let people know that you now have a feel. People don't care how much you know until they know how much you care. I want to give you a quote who recently gave a lecture about Ebola from the Liberian perspective. He describes it as an unimaginable unseen and unexpected terror and a bag of mental torture for anyone and everyone who realized potency in borderless reach. Emotion has to be taken into account and communications. It is not just a scientific response. It's a psychological and emotional one.

Promote action. People feel a loss of control during any emergency. When you give people actions they can take to help protect themselves that helps them take back that control.

And then finally, and this should be very obvious. Show respect. Show respect to your audience. Remember that people might not choose the action you want them to take. But they are making the best decisions they can, the decisions they think are protecting themselves. People are not choosing to ignore your advice because they are ignorant or stupid. They have some sort of psychological barrier. So as communicators, it's important to understand what the barriers are and seek to alleviate them instead of thinking poorly about our audience.

And the final point I want to make is about coordination. I think Abbigail touched on this a little bit. You can have wonderful communications, great information, great messages. But in a large scale response, it's really important to make sure that all of the information you're putting out is really synergized out there. Just to give an example. I was asked how does CDC share information about Ebola with members of the public. And the answer is a really complicated response. There are thousands of people at CDC working on the Ebola response in hundreds of teams. And each one of these teams might be communicating information with different partners in different ways. You've seen Abbigail talk about the large number of conference calls we've had. We had several list serves. We have all sorts of events. So information is really coming from all different quarters of CDC.

But what's important is we coordinate that information. One of the things we do is put out a key messages document so we make sure that no matter who is communicating, we're all sticking to the same facts and to a certain extent we're communicating in a similar ways. That keeps us from putting out mixed messages from multiple experts shown to kill communication success. And if you'd like to sign up for the CDC emergency partner's newsletter, you'll receive those key messages every week. We have a link to that. Next slide.

Okay. So talked a little bit about the things you need to make sure you do in any emergency activation. What is it that's different about infectious diseases from other emergencies? And quickly here different challenges to highlight. The first is the biological challenge. People have literal or no immunity to these diseases. That makes them harder to avoid. Makes it harder for people to be in control of the risks they put themselves at. So again, it's a very difficult thing to communicate around. We have psychological challenges. The situation in an infectious disease outbreak is ambiguous. Can be very unpredictable. And certainly as we've seen with Ebola, it's very complex. What that means is there's even more uncertainty. It's more of a changeable situation. And psychologically, as human beings, we have a very difficult time dealing with uncertainty. We want knowledge to be able to feel we're in control. And so having that large degree of uncertainty can be a psychological challenge for people. And bring about a lot of barriers that are going to keep people from hearing messages clearly.

And finally, we have sociological challenges. The behaviors of others impacts the infection rates. So whether or not you get an infectious disease could depend on how well your neighbor practices certain prevention control measures. And that can be very difficult for people to accept. And creates a large potential for conflict. And as we've seen in West Africa, even violent conflict.

So again, to mention the coordination piece, I think another challenge particularly in infectious disease outbreak, once it becomes larger than a small outbreak becomes more out of control, more like epidemic, even a pandemic. It becomes a large scale response. As Abbigail said, it's really important to make your communication plan now before anything happens. And make sure that not only do you have that communication plan but it is well communicated to everyone involved in that plan. That everybody who is involved in that plan agreed on their roles and protocols. Something that I've seen in west Africa is they are very good plans but perhaps it's not well communicated who is going to perform what role in those plans. So there have been challenged there.

And again, you have to think about coordination within your own organization. If it's very large, with your partners, and all the different levels of government. Next slide.

And I really wanted to highlight in particular the issue of stigma. Stigma is a huge concern in just about every infectious disease response. And what happened is in an infectious disease outbreak, people feel the lack of control. There are not that many actions people feel they can take in order to protect themselves and their families. So they seek some measure of control. They target a group of people or a place or maybe a business and say you know what, if we stay away from those people, if we stay away from that place, then we're going to be safe. And this has to do more with perception than reality.

What we have seen is this can be incredibly psychologically damaging to that stigmatized group of people. Can lead to a lack of access to them. We've seen children in West Africa being turned away from schools. Even in the United States, children of responders who have come back from West Africa

have been turned away from schools and denied access to education. We've seen people denied access to medical care which could be potentially lifesaving.

And also economic repercussions. People not traveling certain places or avoiding certain businesses because of this perception they could be at larger risk. And then finally, and most scary is that it can lead to direct violence and unfortunately, we've seen quite a bit of that in west Africa where people are targeted and even killed because they are perceived to put others at risk. When, in fact, that might very well not be the case.

So there is a lot that can be done by you encountering the stigma. And the first is easy. Share accurate information about Ebola including its transition. When you do that, you are helping give people the information they need to feel like they have a little more control. And tendency to stigmatize is a little bit less. But also show understanding for the fear and uncertainty that can lead to stigma. And back to what I was saying about respect. Understand nobody goes and sets out to stigmatize, to be a bad guy. To be mean or angry to a group of people. People are doing that because of their fear, because of their uncertainty. When you understand that and try to counter the fear and uncertainty, then you don't alienate the people who are leading to that stigma.

And finally, speak about stigma and negative impact whenever possible. And make sure you are not inadvertently contributed to stigma. For instance, using particular images. If you use images all of one racial or ethnic group, you can stigmatize that group of people. Or if you use colors or fonts you can do the same thing. So be very mindful that particularly when you are talking about infectious diseases, you are representing everybody equally. Next slide.

So we have a number of training resources at CDC. Just go over them quickly. The first is the crisis and emergency risk communication program where I drew my content. You can see the link there. The pandemic influenza manual. It applies to every infectious disease. We have Ebola community education tool kit. That has a slide set you can use you can provide to communities. And then there's the link to the newsletter I pointed out. Our emergency partner's newsletter. That comes out about now every week with some of our resources. Next slide.

NACCHO has a number of training resources. Ebola messaging guide is not training in and of itself, it is a resource local health departments could use to develop risk communication training. This message and guide is available for local health department staff by request. Webinar participants who are local health department staff may contact NACCHO to request this guide. Next slide.

And then ASTHO has a number of communication tools as well. Training tools. Several mechanisms to communicate with and provide situational -- for example, they have top questions on Ebola which are simple answers developed by the Association of State and Territorial Health Officials which is a communication guide to assist state and territorial health officials in preparing to communicate with the public, media and policy makers. And ASTHO continues to send weekly information updates to members, affiliates and partners. ASTHO's also developed a state public health blog page. On the front lines, a look at how states are preparing for Ebola response. And for tips on Ebola

preparedness from the Rhode Island department of health director, Michael Stein. And four rapid queries to states to request time sensitive data from the field on these topics. ICS structure, activation, healthcare readiness, training, drills and exercises, alternatives to in-home quarantine, hotline or call center, PPE status and many others. So with that, Paul, turn it back to you.

>>Paul McKinney: Thanks, Molly. I'm going to go over a few points regarding isolation and quarantine. If we could have the next slide, please.

First, a couple points about the terms themselves. Isolation and quarantine. Since these are frequently misunderstood or misused especially in media reports. Isolation refers to that set of often very strict guidelines applied to individuals who are known to be harboring an infectious agent and therefore are at direct risk for someone else. These protocols are almost always used either in the hospital or in preparing someone who is being transferred on the way to the hospital for definitive care.

Quarantine refers to somewhat less strict of protocols that apply to individuals who may be incubating an infectious disease but display no current symptoms of that disease. So they may or may not be at risk for other individuals at some point. As we apply it to Ebola, of course, individuals who are not symptomatic and not at risk for other individuals. And therefore, no reason to consider using any kind of protective personal protective equipment when handling something in the Ebola quarantine situation. And one other point to recognize from a historical stand point, the term quarantine derives from the Italian word 40. In the medieval period in Venice, 40 days were the required period that individuals on a ship from a foreign country who might be at risk for transmitting an infectious disease. And entering the port there at Venice were required to stay aboard for 40 days prior to getting off and potentially exposing citizens of the city. Fortunately, for Ebola, we only have a 21 day period. We're concerned about substantially less. Half that, really, in dealing with the original quarantine period.

Second, is a point about federal and state jurisdictional authorities. Federal authorities plies directly to ports of entry into the United States where individuals from foreign countries are first setting foot here in the U.S. and also applies to individuals who might be traveling between states, much as federal law on interstate commerce applies when goods are between states. And state law occurring within boundaries of a given state. These might be different state to state in certain circumstances for certain diseases. And only those applicable public health laws to that state apply under that setting when someone is not traveling outside state boundaries. Next slide, please.

We've heard a fair amount of the screening and monitoring process. Which will become quite extensive during the Ebola outbreak in Africa. It is a process which extends to both the exit and entry of individuals into the U.S. and the process at West African airports. The exit screening begins with measurement of temperature, review of any exposures to Ebola, any symptoms of Ebola, and if anyone is manifesting fever or considering to be a high risk based on exposure or certainly if they have symptoms. They are not allowed to

travel. Not allowed to embark on aircraft at that time. Once the individuals arrive in the U.S. and now from West Africa, they will have to arrive at one of five U.S. airports. JFK New York, Dallas, O'Hare -- and 125 travelers arriving any given day from those destinations here in the U.S. they are screened in a three step process. The first being contact with DHS Homeland Security personnel who again take their temperature, review exposure history and any symptoms and obtain contact information from the individuals. Where they are going to be and the best way to make contact if they are going to be otherwise out of touch for a period of time from family and where their travel might take them.

Step two involves the travelers receiving a check and report Ebola, acronym CARE, kit. Recording temperatures, information about Ebola so they can no what symptoms to look for. And a cell phone is provided for them with 21 days of unlimited talk and text capability and informational phone numbers in case they have any questions about what to do during the process of evaluation on entry into the U.S.

And finally, step three is contact with public health personnel. These are usually U.S. public health personnel who recheck their temperature. And now, this is the third time they've had that done. Get it done on the exit through West African airports and first in the U.S. by DHS personnel. But now, the third time, their temperature is rechecked. Their exposure history is reviewed. And it's determined whether or not they pose a high risk to other individuals. The risk category, the individual is determined. If they are high risk, no further public transportation is allowed. They may be diverted to a hospital or for other local follow up of symptoms and specific testing for infection. Next slide, please.

And then all travelers are connected with their state or local health department in the location to which they are headed. Their final destination in the U.S. they are asked to monitor temperature twice a day. And check for a period of 21 days. And this is where the link comes in. Those individuals will be assigned to state or local health department depending on the size or resources available. Large cities might take on the responsibility themselves. Very small rural areas if that's where persons are headed will defer this to the state health department for on-going monitoring.

For average risk individuals, active monitoring will occur. In that situation, public health workers should contact those persons everyday regarding the presence of any fever or symptoms for a period of 21 days. So this active monitoring process occurs remotely, usually by telephone contact. The travelers are given a cell phone for access that's active for 21 days.

If the individual is deemed high risk, then direct active monitoring is invoked. This involves not monitoring via telephone but via a direct in-person visit for those activities. Checking temperature. Somebody will perform a temperature check on the individual face-to-face and record their symptoms face-to-face. Obviously, very highly intensive and time consuming activity that requires sufficient resources on the part of the health department performing it. Next slide.

There is a major difference currently between civilian and military protocols for persons re-entering the U.S. from potentially infected areas or areas with on-going out break occurring.

For military personnel, there are approximately 1800 individuals in risk zones. Right now, those individuals are returning home on a periodic basis and others replace them. So they are cycling through. As these people return and leave West Africa prior to coming to the U.S., some will be housed at one of two bases in Europe or Italy/Germany bases. If they do come to the U.S., they'll be directed to one of five bases here in the U.S. there is one in Washington State, North Carolina and Virginia and two in Texas. At those bases, they are sequestered physically. Separated from other personnel on the base for 21 days and monitored as other civilians returning from Africa with checks on their temperature and any symptoms for a period of 21 days. Local and state health departments are currently not involved in this process. I understand the DOD is discussing a change for handling returning troops. This could change over the next few months. Next slide.

While there have not been any specific ASTHO developed tools or resources, staff have been collecting numerous state resources and made them available on ASTHO's Ebola web page and include the following: Implementing isolation and quarantine: A guidance document. Gubernatorial order gives state officials the ability to coordinate a targeted quarantine. And implementing isolation and quarantine. Also resources available on the Ebola web page. Including two documents and links to CDC resources. The network for public law resources include Ebola emergency legal preparedness: Quarantine of ill travelers. And emergency legal preparedness concerning Ebola virus disease.

We've covered a lot of territory here. And now Dr. Pat O'Neal will focus on the issues involved with protecting the public and public health workers from infectious diseases. Please proceed.

>>Pat O'Neal: Thank you very much, Paul. I think it was very important early on to help the folks in local public health understand as much as possible about the disease, Ebola. I'm thinking very much of some of the comments that I heard repeatedly spoken by Dr. Rich Besser in the pandemic situation in 2009 when he was so affective in addressing the public and not just the general public but also professionals in which repeatedly he said he would share information in a way that would tell folks what we do know and also what we don't know. And I think that was such an important message to get across. And it gets back to some of the things Molly addressed earlier. If, in fact, we are going to affectively deal with the fear the public has or has had and think back to mid-summer of 2014 when the first cases were brought to the United States of Ebola. The public was quite frightened. And so were professionals in the public. And much of that fright, I think, was alleviated to some degree as the knowledge about Ebola viral disease developed more affectively.

One of the most important things we felt should happen in terms of helping folks at the local public health level was gain as much knowledge as possible about this particular disease and what it looked like. We wanted folks

to know the mode of transmission. We wanted them to know it was transmitted by liquids and those liquids had to get into a mucous membrane such as the eyes, the nose the mouth or through a break in the skin in order for the disease to pass from one person to another. So it was not nearly as highly contagious as something like measles. Also felt it was terribly important for folks to know the Ebola patients, again, unlike individuals that might be incubating measles were not contagious until they became symptomatic. A person that has the measles virus may transmit the disease even 4 or 5 days before they show symptoms. But that's not true with Ebola. A person cannot transmit the disease until they become symptomatic and even when they first become symptomatic, the likelihood of transmission is not too high for two or three days. The viral load is not high enough to be contagious.

Also important to understand the incubation period. This gets back to much of what Paul described in the enhanced screening and monitoring processes that were developed. Much of this was done in the knowledge of incubation of disease. It's a 2 to 21 day incubation period with 8 to 10 being the most common time frame. And if a person goes 21 days after some type of exposure and does not become ill, they are ill free. Important for folks to understand the Ebola disease in the early stages looks very much like flu. Folks will complain of a headache, sore throat, aching all over, sore muscles, sometimes stomachache. May progress on to over a period of time to nausea, vomiting, diarrhea. In the early stages, really just looks like flu.

It was also very important -- and I think this is a lesson learned we want to continue to emphasize over and over again. That with so many diseases in this day and age when we see so many international travel. Understanding travel history is just extraordinarily important. And something that perhaps a lot of healthcare professionals have not been that commonly asking when they see someone presenting with symptoms suggestive of an infectious disease. Ebola raised awareness very much on the importance of the travel history. With this epicenter in West Africa. And knowing what countries and what point in time. This was somewhat of a moving target. Consistently, we've seen Liberia, Sierra Leone. And knowing where the disease was experiencing epicenter was important in terms of identifying a potential case. Next slide, please.

Paul did a detailed job, very excellent job of describing the traveler's screening. And I want to emphasize how important it was for local public health to understand that. It gave a certain sense of security. First of all, it wasn't likely anyone who was ill in West Africa was going to be boarding a flight. But there was also the possibility someone might be in that incubation period and would get sick on the flight. So enhanced screening was started October 16th of 2014. Again, another check just to be sure that we were not allowing folks that were ill to get out into the public readily. So that screening and subsequent monitoring cannot be emphasized to how important it was to be sure local public health understood that was happening. It gave a certain sense of security and back to Molly's issues related to general risk communication's tenants, it allowed people to feel they had some measure of control over the import of disease into the country. So I can't underscore how important it was for public health to

understand what was happening at those five airports and subsequently for the 21 days of monitoring.

I think it was also very important for local public health to know that there were identified in various parts of the country facilities where patients who were potentially Ebola patients based on their history and preventing symptoms where they could go to be assessed. We did not expect that every facility would be able to do that evaluation. We tried to identify in various parts of the country assessment sites and treatment sites understanding that the treatment of Ebola and the assessment of Ebola was a very specialized activity that was labor intensive. And became apparent it would not be realistic for every hospital to be able to do that. In the beginning, we thought that might be a possibility in a western country. I think we learned it was really not realistic. We identified specific sites for doing assessment or the diagnosis of Ebola disease. And then other sites for on-going treatment of that disease. And sharing that information with local public health said they knew if someone did present a local health department they could be transferred to one of those facilities for on-going evaluation and treatment. That that could be implemented readily. It was terribly important in some of their fear.

And I would emphasize it's important we not think we could eliminate all fear. A lot of fear may be helpful. What we did want to do is eliminate the level of fear that made folks feel they had no control over anything and could converge into panic. That's what we were trying to eliminate. We felt local public health could gain a much stronger sense of security and control if they were aware of personal protective equipment that would prove to be a barrier against the virus getting into their bodies. CDC was a wonderful resource for providing guidance with local health departments so that could give them a sense of being able to control entry of the virus into their bodies. Next slide, please.

It was also important for local health departments to have a general sense of what they would do if, in fact, they had a potential patient that would come to their apartment, how they would clean up and feel that area was safe to see other patients in. CDC, once again, provided guidance with help from OSHA, how it could be cleansed. We felt the guidance CDC provided related to how EMS would be outfitted if they were summoned to a local health department to transport an Ebola patient was important. Again, because of the potential in the back of an ambulance for a lot of contact with patients you wouldn't see in a clinic setting. EMS had a rigorous amount of training. And we wanted them to be aware how they would be dressed out should they respond to take a patient from there to an assessment or treatment facility. Next slide, please.

So the expectations for local public health were very important and fairly simplistic. We wanted public health to be able to identify a potential patient based on the travel history. Along with the presenting symptoms. We wanted the local health department to know if they had such patient, they needed to isolate that patient until the patient could be transported to an assessment or treating facility. Involving epi. Other expectations that are not really shown on the slide but terribly important. Because public health is viewed by many in the

public as subject matter experts for all sorts of things, particularly out breaks, we wanted the folks at local health to have the best possible information they could share with the public. Become educators for the general public as well as each other. Expectation that not only would they gain a sense of control that they would share the knowledge with others. Could be the general public but specific sectors. There were many calls they received from various types of responders as to what their risk was. Became one of the subject matter experts that needed to convey about the disease. That was another important expectation.

And to reinforce the knowledge. There was another expectation and that is they would exercise what they learned. And many local health departments have had table top exercise as well as other exercise to reinforce knowledge and improve their plan for response should they have to respond to a patient. Next slide, please.

We've had excellent resources throughout the last several months related to Ebola probably CDC provided more information than any other notable organization across the country to be sure. Certainly, for local public health and state public health, we have depended upon multiple guidance and most importantly, although there have been many guidances that have come forward, the information that has been shared related to recommendations on PPE, personal protective equipment, has been the most helpful in terms of being able to allow individuals to develop a sense of control. Being able to assure themselves if they came in contact, they would not actually catch it themselves. Next slide, please.

Other resources that have been extremely valuable. ASTHO shared much information. Not that they developed themselves. But maintained extraordinary situational awareness of what was being done in preparing for and responding to Ebola and other infectious diseases that may emerge. They can send out and share best practices in many states across the country. Next slide.

From the feedback we've had across the country, one of the most important things developed in Tennessee. And I've heard repeatedly from other states that they had utilized this exercise and felt they had improved their own plans in their various states after having done the table top Tennessee developed.

>> Thank you so much, Pat and thank you to Molly and Paul. This is Laura.

>>Laura Lloyd: If you have any questions, submit them into the Q and A box. And then we will address those and any other questions at the end. And to keep us moving forward, I'm going to turn it back over to Paul.

>>Paul McKinney: Thanks very much, Laura. Thanks again. We've already shared training resources related to the presented topics. I'd like to introduce you to representatives now from NACCHO and ASTHO and talk about what their organizations have identified as top training needs of respective constituents. Lilly Kan is senior program an activity and worked at NACCHO for over 7 years. She addresses a variety of reemerging and newly emerging topics and serves

as the subject matter expert within command system NACCHO established for Ebola response.

James Blumenstock is the chief program officer for health security at the Association of State and Territorial Health Officials. Prior to his arrival to ASTHO in 2005, he served in multiple positions with the New Jersey state department of health including retiring of deputy commissioner.

>>Lilly Kan: Thanks so much, Paul. Before discussing the top training needs from the local health departments that were preparing for potential cases for Ebola, I wanted to reiterate the point that came out in earlier remarks about how there will always be a need for training in fundamental areas of prevention control and prevention. Always be a need for the training in the ten health services and functions that under lie how local and state health departments prevent and control infectious diseases. I'll highlight the Ebola specific needs. And discuss how we at NACCHO address those needs and share some of the training resources that aim to support preparedness, disease and broader public health functions.

One of the major on-going activities which NACCHO has been involved following the first confirmed case in the U.S. is actively collecting information on local health department Ebola needs and providing technical assistance in response to those needs. We established emails through preparedness. Direct conversations with local health departments, our preparedness blog as well as Ebola virtual situation room which was a secured share point site that over 3,000 individuals from local health departments, typically the local health director or staff could access.

We established a process for tracking this information and the ways in which we responded. So part of tracking this information, we qualitatively analyzed the information and identified the themes of the needs you see here. I won't go into greater detail since my earlier colleagues have discussed most of these. But I'll be happy to talk through anything during the discussion.

And also, the only training resource that NACCHO developed in response to local health department Ebola specific needs was a message and guide for local health departments to use with the media, elected officials and the rest of the public.

Instead, we focused our resources on providing technical assistance to local health departments based on their needs. Much of our efforts not centered on facilitating timely and rapidly involving information between our federal national partners and local health departments. Following up on what other presenters, and Pat mentioned earlier about knowledge being the prerequisite for prevention. I couldn't agree more. It is critical to have information. One lesson learned from the 2009-2010 was that local health departments needed as much information as soon as it was available so they could adjust their planning and response accordingly. Local health departments recognize communication efforts could lead to information duplication and overload. But air on the side of receiving too much information as opposed to too little. With that in mind, we

aimed our activities to supplement on-going communications and information local health departments were receiving through other channels and used the mechanisms I described earlier such as the blog, the situation room, direct email to respond to the needs we identified. Next slide.

This slide shows a few training materials NACCHO developed that were not specifically for Ebola but speak to some of the needs Paul mentioned and we identified during Ebola. But common across disease situations. So again, for the sake of time, I won't describe each of these but happy to answer any questions during the discussion. Next slide.

This next slide features a few additional resources. They are available for training public health professionals in the area of preparedness, mobilizing commune volunteers, medical reserve core, training materials surrounding developing community preparedness, understanding legal authorities and the ethical issues involved in public health decision making. And I've included a link to the blog I mentioned earlier which houses the wonderful resources CDC and local health departments and other partners have developed that can serve as materials for training. Next slide.

Last slide features just a few broad resources NACCHO developed that focused on some of these ten under lying essential public health services that are crucial to affectively preparing for and responding to diseases including Ebola. In order for local health departments to engage all the necessary community partners and Stakeholders such as healthcare and EMS and the entities my other colleagues have mentioned earlier, that are involved in addressing diseases. Needs to be a strong internal and external infrastructure.

And with a that, turn it over to Jim.

>>James: There are two advantages to being the last presenter of the day. Look back at the presentations my colleagues provide. And it helps me tie it all together. That's what I would like to accomplish in the next two minutes. What I want to share with you is what we've identified as the top training needs that our members, the state and territorial health officials believe need to be focused on in the short and long-term. And it's important to mention here that this list was created independent of the research and remarks my colleagues shared with you. A couple weeks ago we canvassed our membership in anticipation of the three funding opportunity announcements coming out for Ebola preparedness. One for the cooperative agreement, another one to the hospital preparedness agreement and the third one through the epidemiology agreement. Recognize and allow for capacities being built to address specific training needs. This information is fresh. Canvassing our members in the last couple weeks. What you will see is it tracks very nicely with the presentations that you've been privy to over the last hour.

Let me go quickly through them with you. First is train to trainer. Programs and services for PPE selection and use. Recognizing that the workforce we're trying to protect its size, its dynamics and the importance of doing it right. There is no margin for error. How can we create a multiplier to train the trainer model to do a better job in that area.

The next one is on communications. All the high points have been covered. The critical importance of a communication's plan. The issue of having a pathway so there could be a pre decisional communications and coordination between federal, state, local agencies and partners on strategies and tactics and policy. They are all aligned and have ownership in how we want to move on a national platform for preparedness and response.

The third one, first responder training. Recognizing that they are not public health officials. They deal with all hazards all day. And certain novel diseases like Ebola presents training and awareness challenges and how best to meet those needs.

The fourth one is infectious disease 101 or infectious disease response operation orientation. What we're trying to show here is if anyone kept track of all the incidents that a state would have to stand up and management system, the vast majority would be for natural disasters. Our nation, I believe is suburb and they have excellent rhythm and procedures dealing with natural disasters. When you throw in an infectious disease, something as novel as Ebola, while the basic principles and elements will still function very affectively, there are those nuances that are unique to the threat that you are trying to manage. And we need that -- feel that the portfolio of specific incidents needs to be broadens beyond natural disasters to really make sure that the nation's incident management system can be as flexible and affective during those types of incidents as well.

And the last one I want to touch upon is what we would consider longer term training needs. PPE training for first responders. What they do need to wear, what they don't need to wear and properly be equipped is important. Training for the local health officials. This is very important. Because it demonstrates a great deal of respect and support for the local health system. Territorial health agencies but 2600 local health departments. So they are different organizational structures. Different governance system and different structures such as mayors, Councilman and others that have policy responsibilities. How best to convey in real time not only the technical aspects of the incident but all the other materials, protocols that Lilly and others highlighted today to ensure they get it in real time fashion as possible. So they can help support or lead the response. So hopefully, that all makes sense to you all. And certainly believe it ties nicely with all the presentations you've had as to what the state health officials really believe are some of the top training needs that will be affected in the work plans associated with the Ebola funding and also trying to build the capabilities and capacities to handle other infectious diseases beyond that. Laura, back to you.

>>Laura Lloyd: Thank you, Jim. And thank you Lilly and all the other presenters to this webinar. And we know we're running short on time. I am going to ask the presenters if they are able to stay on an extra ten minutes if they could do that. I know some will have to drop off. Also any participants who would like to stay on and ask questions or engage in the discussion, please do. Remember too we'll be sending out slides and a recording of the call. So all of these resources will

be available for you to review then as well. So at this point, I wanted to tell you may have questions but we have questions for you. And I know we can't get into a long discussion about it but when you go into the evaluation link, if you haven't had an opportunity to express your thoughts about the questions, do so on the evaluation link. We're interested in hearing your feedback. We've heard a lot about the training priorities for the public health workforce. But we also know you have your own experienced and providing workforce development and training regarding infectious diseases. We'd like your comments on what are the training priorities you think the public health workforce has identified. The public health training center really needs to focus on now so that the next time there's an infectious disease outbreak, we're ahead of the curve. Considered too, trainings might need to be developing department staff perhaps take on new roles in helping healthcare systems and partners prevent and control infectious diseases. And two, of these training priorities, which ones are not being addressed by the public health training center network or our partners.

And lastly, what are effective training resources that your center has developed or used from other resources regarding infectious diseases. We're not looking for a litany of everything you've done but effective resources we may not be aware of that we can direct the public health workforce to. So I'm going to put these questions back up on the screen and invite my panelists to stay on for just a few more minutes. Let me remind you to submit written questions into the Q and A feature. But there's another option as well. If you want to ask a question verbally at this time, click on the hand button at the bottom of the participant box and as soon as I call on you, Star will unmute you. You can ask questions in the Q and A box or raise your hand and ask a verbal question. While you are pondering these three questions, I do want to ask the panelist to help answer a question that came through on the Q and A box. And the question was from Laurie Andress. Not sure if you are still online. But the question is do we have access to content that we can put on our learning management system for local health departments? I think Laurie asked this question when Abbigail, you were presenting this piece. So might have been pertaining to your materials, Abbigail.

>>Abbigail Tumpey: Yeah, I'm happy to answer that. As a matter of fact, we have already converted the PPE videos into a format that's more easily accessible to put into learning management systems. And so my email address is in the slides. If you want to email me, I'd be happy to connect you with that. You are welcome to put anything -- any of the resources we have for healthcare providers on any of your learning management systems or web site.

>>Laura Lloyd: Thank you very much. Star, do you see anybody with a question? Remember, if you have a question, you are welcome to click on the raised hand button and ask a question. Or you can enter your questions into the Q and A box.
>> Hi, at this time I do not see anything.
>>Laura Lloyd: Okay. Jim and Lilly, regarding your resources, is that true for

you as well? That content you may have available could be put on a learning management system for local health departments?

>>Lilly Kan: I'm happy to follow up with Laurie individually if you wouldn't mind sharing my contact information. I realize I didn't put my email in the slides. We can search through and depending on what kind of content Laurie is looking for, I'm sure we have resources available.
>>Laura Lloyd: Great, thank you very much. Laurie, if you were asking about the recording and the slides here, that's fine. We are going to be sending these out to everybody on the PHTC network. And hopefully, it will be a resource for at least the work you were doing.
Any other questions from attendees?
No? Any other comments from the panel members?
Panelists, I guess you answered all the questions that any of our participants could have had on the lecture itself.

With that, I want to thank everyone for especially the presenters and contributors to the enormous amount of work they did to put into this webinar. It is chopped full of information about how we can prevent and control infectious diseases and the resources that our regional public health training centers and local performance centers can use to train health department personnel.

Again, please take a minute to complete the online evaluation. Your comments are anonymous. But they will help us determine what priorities are for our continued work as a network on regarding infectious diseases.

With that, thank you, everyone and have a great day.

[Webinar ended at 2:33 p.m. eastern time.]