

**CENTERS FOR DISEASE CONTROL & PREVENTION (US)**

**Moderator: Leeanna Allen**

**September 30, 2014**

**1:00 pm CT**

Coordinator: Welcome and thank you all for standing by. I would like to let all participants know you'll be in a music hold until the question and answer session of today's call. If you do have a question, you can press star 1 on your touchtone phone. Today's call is being recorded. If you have any objections, you may disconnect at this time.

I'll now turn the call over to Leeanna Allen. Ma'am, you may begin.

Leeanna Allen: Good afternoon, everyone. This is Leeanna Allen from the Centers for Disease Control and Prevention's Emergency Operations Center. And I would like to welcome you to today's emergency partners' call for West African communities in the United States. Our goal today is to address concerns that West African communities in the United States may have about the ongoing Ebola outbreak.

We are extremely fortunate to have with us today Craig Manning from CDC's National Center for Emerging and Zoonotic Infectious Diseases on the call

with us today. Craig is going to provide some information about the Ebola outbreak and give us an update on what CDC is doing to help stop it. We're first going to hear from Craig and then we'll open up the phone lines for questions.

And so at this time without further ado, I'd like to turn the call over to Craig Manning.

Craig Manning: Good afternoon, my colleagues. It's wonderful to be connected again with you. Some of you I think I may have spoken to in the past when we had other outreach calls. I want to give a special shout out to Phil Suah from the Liberian American Community here in the US. He's on the call this afternoon. And he and I have worked closely to strengthen the outreach that we are trying to do here at CDC to reach out to everybody across the US.

So whether I'm greeting you with a good afternoon on the east coast or a good morning out on the west coast, we're actually - we're delighted to have you in the call. From the vantage point of what information I can bring to bear, I can speak about the scientific side of Ebola as a virus and this outbreak response,

I'm not really good with the politics of that. I don't understand the politics of Liberia, of Sierra Leone or Guinea. So I'm not going to go there. And I'm sure you would not want to hear me speak about that stuff anyway.

I've watched this outbreak since it got underway back in the early part of this year, watching it progress from this small event up around Guéckédou in Guinea where we imagined it would be - it wouldn't be very long before it was over to now seeing this event unfolding that is drawing the interest of people around the world.

And I can tell you that President Obama from the US was here a short time ago, lending his support and appreciation for all of us - all of those who have been in response. So it's a big effort as I'm sure you well aware at this point. And it's getting bigger. I hope to address some of that in the course of speaking with you this afternoon.

So I'm - my training is in the area of health communications. And what this means is going and telling people what - in so many words, going and telling people what it is they can do to better understand how to protect themselves. And that mission has been something I've been engaged on other outbreaks in Uganda for example over the years.

And of course, in this instance as well. So I want to speak to all of you and basically give you some homework for this assignment as a matter of fact. We've said this before, but we want to say it again. You guys, you males and females, men and woman. I want to tell you that you are an important piece of this response.

You are a hugely important piece of this response as a matter of fact because you reach all the way back to family and relatives and friends and country. And we want to reach that population as urgently as you do in terms of giving them prevention messages and giving them information to guide how it is they respond in this outbreak to get a better sense of what their options are.

So for each and every one of you that's listening in today, my hope is that you'll get on the phone and talk - or get on email or get on Skype or get on Facebook and whatever and talk and communicate to the people back there and remind them that while it is they might feel very alone in all this that there is indeed a huge response that is taking shape and which is implementing in country.

And I would request - I would humbly request that you take that request very seriously. And make sure that those people who need this information get it. And that they don't feel stranded. So another point I wish to make I'm kind of in the opening remarks, part of the presentation here. There is - the CDC website and I realize everybody tells you about how great their website is.

Our website on Ebola is superb and it changes every day. And it's probably the single most expansive frequently updated resource for information about Ebola. It's [www.cdc.gov/ebola](http://www.cdc.gov/ebola). So if you're looking for maps, they're there. If you're looking for radio commercials about Ebola in a dozen languages or so on a number of topics, it's available there.

I'm not going to drag you into - I'm not going to ask you to write down the URLs for that. But you can navigate around that website. It's something that I would do every day. It's something I do every day. It's something I would advise you to do every day. And I would encourage you to share what you find there that's topical and relevant.

And share that back in country with family and friends. And I want to go straight away now into some of the most important - some of the most important key messages that we can give with respect to keeping yourselves - well, not yourselves here in the US, but you're family members back in country safe.

And there's a number of ways to start with this. But I think the way that we can start to talk about this is we know that a long time ago, it was potentially a bat or a monkey that became infected with Ebola and transmitted that virus to the very first human. And while it might be that the bat has no ill effects or

symptoms from Ebola, the monkey definitely does and gets sick in fact more quickly than humans.

But there would seem to be - there was ongoing transmission from the monkey or the bat to the human and then onward to humans subsequently. And this is why we're looking at the circumstance that we are looking at today. The good news for the future is that there's a lot to be learned about how Ebola response has evolved for Uganda.

They now do very rapid detection. They now know that they just simply can't assume that fever, diarrhea and vomiting suggests only Malaria or suggests only Typhoid. In Uganda, they now think that fever, diarrhea and vomiting in a rural community, that that's indicative potentially of Ebola. They draw the blood.

They ship it out. And on the same day in country, they usually have a response from the laboratory as to whether it's positive or negative. And that's the mode that we're aiming towards building in West Africa so that when outbreaks of this sort occur potentially in the future, we really don't want to have things get - we really don't want to have things take as much time.

We want a much more swift response. And as Dr. Frieden, the Director of CDC has said, "More than with other infectious diseases, speed is of the essence when responding to Ebola." And I think we've certainly heard that message here. Another message that I want to transmit and pass on to you guys is that it's important not to be touching sick people.

And when we say sick, we don't necessarily mean people who have Ebola because at some point you just simply can't tell the difference. People will have Typhoid. It looks like fever, diarrhea and vomiting. People may have

Malaria. It looks like fever, diarrhea and vomiting. And people may indeed have Ebola which looks like fever, diarrhea and vomiting at least in the initial stages.

So the idea as extraordinarily difficult as it sounds is to refrain from touching those who are sick. And in places where there is significant overcrowding, in the Saudis for example, certainly in Monrovia, in parts of Monrovia, it seems that we're seeing a very steep rise in cases. We're seeing this in Freetown as well.

And we have seen it on other times in Conakry. And you ask yourselves, "How in this very confined space where multiple individuals are sharing the same room, how is it possible to avoid one person infecting another?" And I say to you there's probably no easy way for that to happen. We have - we hear indications that people are using plastic bags as gloves to sort of prevent transmission.

We're not sure whether it's an effective way. We're not sure whether it creates more good - more harm than good. But it is an expression of people's growing understanding that touching the sick is a means whereby transmission can occur. And if we can stop that transmission, than we can bring this outbreak to an end.

We know also that this - the funeral practices that are in place, the culturally accepted practices that have been in place for generations, these seem to be also another route for transmission. We know after an individual has died, that the amount of virus on the skin is very high. And in the context of washing the body of that individual, it's possible for the people who are touching and handling and grieving and physically touching with that person, the transmission occurs in that setting as well.

So again, the argument from our side of things is let the burial teams do the work that they need to do. They're protected for that. They're equipped for that. They have the understanding about how to do that. And it's not easy work. And I know that the communities are absolutely furious on occasion with the people who are working to perform safe burials.

But safe burials are an absolutely essential part of reducing the onward transmission. I can tell you from experience in Uganda that there was one individual who died in the community. This was near the border with Congo. That individual had a very big funeral. And there were 23 or 24 subsequent cases of Ebola that resulted from transmission at the funeral event during the washing of the body.

So it's an example of just how far, how intense, how quickly Ebola can be spreading. So let's backup for just a second. And I'll go on for like another maybe 15 minutes or so. Then we'll up the floor up for questions. I know you'll - you know you'll have many, many questions. There are some - there's some pieces of good news.

And I don't want to get too far ahead of this. But there is an awareness on the part of most people that this virus is actually quite fragile. And like other viruses, it's easy to kill it. It can be killed or inactivated using soap with bleach, detergent that is widely available, UV light can kill and heating it can kill it.

So you will see messages. You've heard messages I'm sure. Your relatives and friends back home have heard messages that the cooking of bush meat is effective in killing virus. And that is absolutely true. The heating process, the cooking process basically forces that virus to fall apart. And that meat is then -

there's no longer infectious virus in that material. The risk is not for the consuming of the meat. The risk is for the handling and preparation of the meat.

So anybody who's involved in the butchering, the slaughtering, the deboning of potentially infectious bush meat, those people are at considerable risk. And that's why the government has been saying for some time, avoid bush meat all together. So it's a conservative recommendation. But it does serve to limit the possibility of onward transmission especially when you're not certain whether the animal was infected or not at the time of its death.

So another message that I wanted to sort of drill down a bit on I suspect I'm breaching to the converted. You probably have heard this before. This is not a disease that is necessarily, easily transmitted. It's a very frightening disease. The symptoms are horrific. It's really devastating economies and families and countries. And it's a grave cause of concern around - certainly here in the US and elsewhere among the responders.

But the simple fact is that there - it's not easy to transmit. So the virus is not airborne as would be the case with influenza virus for example. And the transmission process for the virus seems to require regular contact. And that's why you see cases occurring within families or within groups of people living in close quarters with one another.

So the man becomes sick with Ebola. The partner, the woman will be taking care of them. And in another - and she's touching him. She's changing his clothing. She's feeding him. She's wiping the sweat. She's potentially sleeping next to him and having regular contact with someone who is - you know who is sick. And this person is able through this regular contact with another to transmit that - to transmit the virus to that other person.

The idea being that you simply can't necessarily get Ebola by bumping into somebody. And even though we see some strange behaviors of people avoiding one another as they walk down sidewalks in Freetown or elsewhere, the idea is not that you have avoid that kind of contact. It's the contact of caring for someone which is why we see Ebola occurring in - among groups of people who are in close contact from man to his partner, from the partner to the sister.

Over a period of 8 to 9 to 10 days, you will see that person subsequently - potentially become sick. So when you understand this part in terms of how Ebola is working, that is to say the transmission happens through contact - direct contact with bodily fluids. And then subsequent to that, 8 to 9 to 10 to 11 days, that person who was the contact will then perhaps become ill.

Then you understand a basic piece of the nature of this Ebola virus. And it explains a lot about why we at CDC and elsewhere place a lot of emphasis on contact tracing, going into the community, finding the contacts of those who are sick, keeping an eye on those contact for several days to be sure they don't get a fever.

But if they do, bring them into some kind of hospital setting, some kind of care setting, some kind of community setting where they are no longer able to infect others. So in terms of a strategy, a public health strategy, this is really what we're trying to do. And to do it all across each and every county, each and every (unintelligible), each and every district in all three countries where there have been cases.

Then you can imagine it's no small task. So my request of you in this specific instance would be that in the remote rural areas which is where we seem to be

having the greatest amount of trouble getting through to people, if you know anybody who owns a radio station or has some other venue, some other means to reach out, whether through the church, whether through the mosque, whether through some other organization.

Please let them know that we would appreciate their help. And I'm sure their willing to provide it and have been providing it. We would really appreciate their help in trying to reach those communities where the resistance is still greatest. And I'd like to say that we'll do everything we can to support that. So another point to mention I think is that and again we go back to the basic science here of the Ebola virus.

When there is no fever, there is no transmission of virus. So if the partner of the man, if the woman has been taking care of that man starting on Monday and has a fever, if there is viral transmission to her, she may not be getting sick on Tuesday, Wednesday, Thursday, Friday Saturday, maybe seven days, eight days, nine days, ten days later, yes.

But during the period when she is not sick, there is no transmission. So be aware that if you're not seeing people who are - if there is no fever, there cannot be transmission. And that's an important point to remember as we proceed to try to get this outbreak under control. The other comment I wanted to make has to do with what the countries are doing.

And as you can probably - as you probably - well, maybe you haven't heard, but I'll try to explain. I would think when I was in the ground in Liberia a couple of weeks ago on absolutely a very busy time in terms of the public health community, the international health public health community, the local groups that are working in this response, I don't know what it looks like to the average person on the street to see this many people coming from out of town.

It might seem that there's a lot of news about Ebola but not much is happening. And if that's the case, if your relatives are telling you that, yes, you're hearing all of this stuff about how many things - how many wonderful things are planned and going on, but you're not seeing a whole lot I can certainly understand that being the case.

We're at the beginning of this outbreak. And from the CDC side of things, we are throwing a lot of resources. We are putting a lot of effort. This is an effort where people are working seven days a week. Then we have teams of 20 and 30 people in country working with UNICEF, working with MSF, working with the World Health Organization.

And we are hoping to bring capacity back to the hospitals and to the Ebola treatment centers so that we can ensure that when someone needs a bed to be treated that they are - that there are beds available. That they receive adequate nutritional support. That they get hydration. That they get some meds for pain management.

If there's any other co-infection like Malaria that they are treated for that as well. So isn't exactly easy to observe that. But if you worked at the airport, you're seeing supplies coming in every day. If you're traveling on the big roads, you're seeing lorries coming in and bringing supplies like personal protective equipment.

So it's happening. And I'm hopeful that you're hearing on the radio - that your relatives and friends and family are hearing it on the radio as well. So I think I've reached the end of what I wanted to share with you. I would come back around to the CDC website to encourage you to go there.

[CDC.gov/Ebola](http://CDC.gov/Ebola). And I wanted to thank you once more for being voices that

can reach all the way back to Africa in ways that we can't to keep your relatives, friends and family informed.

So with that, I think we can open up the floor to questions. And hopefully, we can keep this conversation going not only on this call but in subsequent calls in the future. Thank you.

Leeanna Allen: So operator, if you would please open the lines for questions. And just as a reminder, if we don't get to your question today or if you have questions related to areas other than those that Craig is focusing on for the purposes of this call, please email them to us at [emergencypartners@cdc.gov](mailto:emergencypartners@cdc.gov). That's emergency, E-M-E-R-G-E-N-C-Y-P-A-R-T-N-E-R-S@CDC.gov

And we'll get those to the right people. Or call 1-800-CDCINFO as well. So while we wait for questions, did we have one come in over email? We're happy to open up the call for questions. So operator, if you would queue up please.

Coordinator: Thank you. If you do have a question, please press star 1 on your touchtone phone. You will be prompted to record your name. Once again, please press star 1 if you have a question. And the first question comes from (Vada Simpson). Your line is open.

(Vada Simpson): Hello. Can you hear me?

Craig Manning: Yes. Perfectly well.

(Vada Simpson): Okay. Thank you. My name is (Vada Simpson). I'm with (unintelligible) organization that's been shipping medical supplies to Liberia. The name of the

Group is Project Liberia Ebola. And my question has to do with attempting to assist those individuals that are affected or exhibiting symptoms in the home.

It's pretty obvious that it's going to be maybe a couple of weeks, another month before the additional beds are up and running and staff. And looking at the reports out of the Liberian health ministry, it appears as if we're getting about 200 to 300 contacts every 2 or 3 days. And of course, we've all seen the pictures of people being turned away from the various hospitals and clinics.

So my question is this. Is there any way that CDC, WHO, any of these other partnering organizations coming in, is there any way that there can plans rolled out to perhaps instruct, teach and equip individuals in the home so that we don't have the kind of outcome that we're seeing. In other words, are there provisions being made right now to go door to door and house to house to provide tips, etcetera.

And I also wanted to say thanks to the international community for all the assistance at - going to be given and that's currently being given. But it seems to me in order to stem the tide so that we don't have so many deaths, just wondering if something like that is being discussed. Can anything be done in reference to that?

Maybe that's going on right now. Just wondering if you could shed some light on that.

Craig Manning: Yes. Thank you, (Vada) for those questions and for your comments. You are absolutely right that the issue of increasing numbers of individuals becoming ill - becoming infected is driving a reexamination of this question of how to care for patients in the home setting. And this is a very, very sticky public

health issues from the perspective of CDC and from the perspective of any other public health responder that's involved in this.

So the idea at the moment that is - when we are implementing and working and refining and clarifying this is to stand up what we will be call Ebola Care Centers. Are you with me?

(Vada Simpson): Yes. I'm still here. Yes. Absolutely.

Craig Manning: Okay. So these Ebola Care Centers will include some capacity to care for patients while the - while the other Ebola treatment centers are brought fully up to capacity. So it isn't exactly the world's most ideal solution to responding to this outbreak. But in the circumstance of case numbers going up and in the - in recognition of the need that is so pressing, these Ebola care centers will be set up.

People in them will be - people will be recruited to staff them. They will be happening at the community level. I don't know how many. And I don't know what the timeframe is. But I do know that there are several which are open. And I also know that we are preparing some messaging and some materials here at CDC and also with our other colleagues to encourage people to use these facilities when they become available.

(Vada Simpson): Okay. So just to understand. What you're saying is that you really can't speak to that. You haven't - you haven't gotten any information in terms of going like a door to door effort. There haven't been any discussions on that to date? Is that what you're saying?

Craig Manning: With respect to the particulars of the Ebola Care Centers, I'm not - this is really kind of new within the past couple of weeks. So the roll out of these

Ebola Care Centers as it concerns the particulars of going door to door, I'm unaware that there has been discussion upon that. But I don't - I wouldn't take that as a measure of the - of the efficacy of the response.

I would say we're being - we're going about it as quickly as we can. And I'm sure that someone is imagining that this will be a component of that. And that going door to door will be an absolutely critical component.

(Vada Simpson): Okay. Thank you so much. And the only comment I'd like to make in reference to the Ebola care packages that are being distributed, I'd like to stress that unfortunately that literacy rate in Liberia is - excuse me, the illiteracy rate in Liberia is high. And so I know that there are instructions in those kits from some of the articles that I've read.

There are 500 to 400 thousand kits that the US government is providing. And there are instructions in there. And what I'd like to recommend is that perhaps we provide instructions with pictures and signs and not necessarily in English or French because even if the individual is speaking in simple English, chances are they're not really reading English.

And if we're giving them educational materials, we want to make sure that they're able to understand it. So that's my only comment. And also if you could just somehow pass the information on that, perhaps we may want to start going door to door because it's going to be probably another month or so even before these community centers are up and running.

In the interim, we could lose another 2,000 to 3,000. Thank you.

Craig Manning: Exactly. All right. Thank you so much. And yes, to your point about the low literacy materials, that is something that we are - we were aware of that issue.

So we are working it with respect to the artists here at CDC and also at UNICEF and elsewhere. So thank you. Next question, please. Let me see. We have one coming in on email.

There is a question what about sexual transmission of Ebola? And the question is how long should someone wait until the - at what point can one resume sexual relations? And this is an interesting question that we've had to answer on other occasions. The - as I was saying earlier, you can find virus in many of the body fluids of people who are infected with Ebola.

And that means in blood. That means in urine. It means in feces. It means in saliva. So - and also in the semen of men and in the vaginal fluids of women. The advice now for men is to refrain from sexual activity for a period of 3 months following recovery from infection with Ebola because the - there is some evidence that shows that the semen is potentially infectious up to period of about 3 months, 3 months following the start of convalescence.

So I wanted to address that question that came in by email. And I'll take another question now.

Philip Suah: Hey, Craig, this is Philip. Can you limit the question to 30 seconds because we have quite a few number of people on the call?

Craig Manning: Yes. Absolutely. Shorter is better.

Coordinator: Thank you. Then next question comes from (Kajadda Kennedy). Your line is open.

(Kajadda Kennedy): Thank you. This is (Kajadda Kennedy) from the (Unintelligible) National University of Medical Arts. We are a group of health workers from Liberia,

nurses, doctors, physicians' assistants, mid-wives and others. One problem we have is we recognize that there are many - so many nurses in Liberia that potentially covered all of these treatment centers.

But I believe there are issues of either morale, incentives and other factors that are making them not to work. We do understand from our members there that some of them have started to volunteer out of the freewill, considering how much they cases are.

So are there opportunities for like some of our members here because I know there are some many recruiting from the US which incidentally means that if you go, you have to be trained, that CDC could offer either or organization or some other way that we can reach out to the health workers in the Liberia so that they go out and work with incentive instead of spending substantially from staff from US and from other countries around the world.

Craig Manning: Thank you for that question. It's a good and important question. The - in general across all three countries, the healthcare worker community is bearing an unusually high load in terms of individuals becoming infected, becoming sick and dying. So your question is very timely and very important. I've heard discussion that there is compensation that will be paid to healthcare workers who are engaging in this work.

From my reading of this conversation about compensation, it seems to be less focused than it needs to be and going forward as these Ebola Care Centers are set up and as the Ebola treatment centers come back online - come online, the issues of compensations should be fully addressed.

With respect to those who are healthcare workers in the US with experience in tropical diseases or with experience in universal precautions, I know that we

are - the USAID has an area of their website where those who wish to be able to participate in the response in one of the three countries are able to submit CVs, names, applications, contact information.

So if you're - if you're colleagues are interested to pursue this and it's extremely important that there people from the US who if they are Liberian American, Sierra Leonean American, Guinean American, and they also work in the health profession, we would welcome them in this response. The mechanism is there.

But we're still making - we're still trying to improve it. Thank you.

Coordinator: Thank you. The next question comes from (Anthony McMillan). Your line is open.

(Anthony McMillan): Okay. Thank you. My question is pretty much related to the previous two. And that regards support for local healthcare workers, support for community efforts. Much of your approach seems - could possibly be a little bit you know too top down where it needs to be bottom up especially when it comes down to communication.

And in areas where - as one question stated, you know in places where the rate literacy is very low. And therefore getting the message out - you know the message is not going to be heard unless the person has confidence in the person delivering the message. So I mean are there any efforts to No. 1, you know support local efforts?

Not only in terms of support for local health workers, but really in terms of engaging members of the community and getting the message out?

Craig Manning: Yes. It's a - it's an absolutely great question. And this is perhaps from where you're looking at a top down initiative. And I think there's a place for that. We do have to be careful and strategic and smart about how we roll out all this intervention stuff. At the same time, what I'm overlooking and I haven't really talked about it here is the relationships that we have formed with local radio stations and with local cell providers.

And what this means in the case of Liberia is we've got relations going on with I believe it's CellCom and the other whose name I'm forgetting right now. But also in getting with Orange and also in Sierra Leone with Africell, many in the private community - in the private sector have come forward to us and have said, "We'll put what it is we have at your disposal."

And so we've said, "That's great." We have been doing interviews on radio. We've been doing text messaging out to people in the community. And we hope to do more of that. And we're doing radio shows and providing content to these providers. My understanding is that what drives this choice of using radio is that the literacy rates are as your colleague was saying before and as I have observed myself, the rates of literacy are quite low.

But that doesn't mean you can't reach people. It simply means that you use radio which according to one study that we have from Sierra Leone, maybe 80% of the public in Freetown and outside of Freetown get their information from radio. And if we are good caretakers of the quality of information that goes out by radio, we can do a lot.

And I was surprised also in the same study that even though we were very concerned with getting lots of posters out, the fact is as your colleague previously indicated, the amount of attention that people pay to posters

because of their illiteracy is quite low. So radio seems to be the vehicle of choice from the perspective here.

And the information we've gotten suggests that that's how - that's one way to get information out. It doesn't mean that you shouldn't build alliances with community leaders, thought leaders, others in the - with (unintelligible), with leaders in the religious organizations. So the ground game, you know how we do this tactically going into the future has to involve consensus, consensus building and community participation as you rightly say. So thank you.

Coordinator: Thank you. The next question comes from (Charles Cooper). Your line is open.

(Charles Cooper): Yes. Good afternoon. This is (Charles Cooper). I chair the African Advisory Council of the Bronx Borough president. The council serves a conduit between the elected officials and New York State and the African community. My question is this. Regarding literature, do you have any recruiting literature for healthcare professional that are in the states but from those respective countries because I think that would be very important?

I know you had mentioned getting the word out. And in (unintelligible) care, we have the largest West African community in a certain concentration. Just within the Bronx we have over 300,000 West Africans from Guinea, from Sierra Leone and from Liberia, my home country. So regarding recruiting literature, if you do have some, I will like additional information that I can send out to the community.

Craig Manning: Yes.

(Charles Cooper): If you don't I would suggest that you know you produce some so we can get it out.

Craig Manning: Yes. I agree with you. To your question, I think the way we can approach this is I would be happy to speak with you offline and coordinate better on how we can go about that. I think from what I'm seeing, there are untapped resources. And I think you're underlining that point very carefully that we have capacity that we are neglecting or that we haven't yet utilized here in the US people who are from in country.

I don't want to turn away from that. I think we should be diving on that and trying to coordinate that. So the way I would have you reach out to me is if you send an email to [emergencypartners@cdc.gov](mailto:emergencypartners@cdc.gov). It's emergency partners. It's all one word. It's all lower case. That will come around to me. And I would want very much to see what it is you can bring to this response.

And if there's something that is - if there are people who are capable of deploying. They have their passports. They have their immunizations. They are skilled up with respect to provision of care, then we would need to know about that because we are going to be looking at a human resources issues. We're already looking at the human resources issue with respect to this response.

So thank you for that question.

(Charles Cooper): And just one last thing. Now the community wants to do something.

Craig Manning: Yes.

(Charles Cooper): And one thing that I don't want to do is duplicate efforts. Is there any specific thing that we can do as a community to support your efforts on the ground?

Craig Manning: Yes. There's one very specific thing that I would like to raise. And that is - this is very specific to Liberia. Sorry to our Sierra Leone and Guinean colleagues here. But it actually could be true in the future there as well. The Liberian government operates a call center. It's a - the four number call is 4455. And they've got about 100 staff who are on the ground there taking calls.

Normally, those are requests to pick up bodies. Or those are requests to send an ambulance. And that group of people is very burdened. Most of the time, they're getting yelled at because the ambulances don't come on time. Or they find that they're calling about a sick person who eventually passes. And now they're calling about a dead body.

And I went and did some training there when I was in Liberia a couple of weeks ago. There was the call center operating out of what was the GSA compound. But I think it's going to be moved someplace else on Monrovia in the near future. So I would encourage you to offer support to that group. And I can put you in contact with them directly.

They are the ones who are taking phone calls. They're reach is across the entire country. They can give advice on Ebola symptoms, treatment, etcetera. They can give advice on when the Ebola community care centers are opening and where they are. And we intend to leverage that as a resource when - as this response matures and as more activities get underway.

So anything you can do to strengthen and support that group will be a huge gift in terms of the entire country because they are key to the national response. So thank you. Very good question.

(Charles Cooper): All right.

Coordinator: Thank you. The next question comes from (Akimbi). Your line is open.

(Akimbi): (Akimbi). Is that me?

Coordinator: Yes. Sir.

(Akimbi): Thank you very much for the information. My name is (Akimbi) (unintelligible) from Rutgers University. I have a question regarding the field hospitals that the US is building in Liberia. My understanding is that the hospital will be for health workers, foreign health workers. And I'm surprised about this decision.

Suppose a Liberian doctor gets sick and a US doctor gets sick, why would the Liberian doctor be excluded from using that facility?

Craig Manning: I'm not sure what kind of an answer to give you because I'm not familiar with this at the level of detail that you are. I'm sorry to be able - I'm sorry not to be able to give you some clarification there. I don't want to add to the confusion by going out on a limb and speculating. But I think for the moment I'll have to defer to - I'll have to find another way to get you an answer for that question sorry to say.

(Akimbi): Thank you.

Coordinator: Thank you. The next question comes from (Mary Gordon). Your line is open.

(Mary Gordon): Hello. I was wondering. I'm from Hot Springs County, Wyoming. And I was wondering if there's been any consideration with Ebola being used as a bio-terrorism weapon with the incubation period being 2 to 21 days. If a person was to obtain some of the bodily fluids and then inject themselves or something and transport it on an airplane that way.

Then get themselves over to the West. And then once they became symptomatic, they could spread it that way. Has there been any thought to that?

Craig Manning: It's a tough question to answer. Ebola as a weapon of bio-terror is a complicated virus in terms of distilling it from bodily fluids. There's a certain sophistication that you have to have in order to be able to do that. Not many laboratories, not many people have an understanding that is sufficient to allow that.

So the idea that it becomes a weapon whereby you could injury or kill many people, my view - my personal view is that it's a poor choice of weapons because it requires fairly prolonged, sustained contact with someone who is sick in order to give it to somebody else. So from that point of view and I don't really want to stretch too far beyond into speculation, it doesn't have the ability to transmit as readily as for example influenza.

So I think I'll have to leave it right there for now.

(Mary Gordon): Okay.

Coordinator: Thank you. The next question comes from (Joseph Finlay). Your line is open.

(Joseph Finlay): Thank you. My name is (Joseph Finlay) and I'm in Boston, Massachusetts. And I'd like to know whether or not there is any likelihood of mutation in this disease to - or it's mutation to an airborne phase. Or is it because it's - the nature of its viral origin is through contact of fluids, of bodily fluids, etcetera and sweat.

And also I'd like the explanation of the word hemorrhagic. Does that refer to internal hemorrhaging, bleeding of the internal organs etcetera?

Craig Manning: It refers to both. And with respect to the mutation, I mean everything - you know viruses mutate and some of them mutate more quickly. Some of them mutate more slowly. And it's very difficult to correlate a change in the symptoms with a change in the - with the change in the genetic structure of the virus.

So while it might be true that the virus that we have been seeing in West Africa, it's the (Sierra) Ebola virus strain. And it has about a 3% genetic difference from the strain that we have seen in DR Congo going all the way back to I think 95 or 1977 even earlier. So yes, there are differences. It doesn't suggest to anybody in the scientific community that the virus was brought into West Africa by someone flying on a plane.

You would expect to see a fairly - extremely similar phylogenetic - the genomes would be very, very comparable to one another if it was simply transported directly from DRC into West Africa. Whereas, what we notice is a small different of about 3% which suggests that the virus has been in this part of the world for some time.

The mutating part of it in terms of this family of viruses, these phylo-viruses, this is a slow mutating virus. And if someone were to speculate and say, “Well, we think that this recent change in the genome of the virus that we see in West Africa relative to DRC, that this genomic difference is what’s accounting for perhaps lower mortality or perhaps fewer patients reporting symptoms of hemorrhage,” I would have to say there’s no way we can - there’s no way we can yet make that correlation.

So it’s not exactly like you change one part of the virus and therefore you see some very predictable, very observable, very direct result. It’s sometimes more subtle. And sometimes you wait until the end of the outbreak and you say, “Well, there might have been a change here. But we still can’t explain it as well as we would need to.”

So thank you for that.

(Joseph Finlay): Thank you.

Coordinator: Thank you. The next question comes from (Mike Robertson). Your line is open.

(Mike Robertson): Good afternoon, Craig. Thank you for hosting this call. My name is (Mike Robertson). I am the president of (God Water). And we are part of a team of seven US based non-profits that have been working in Liberia for the past six years on the unsafe water crisis. Some of us have turned our attention to fight Ebola.

And what we’re doing is going into the communities where we’ve done safe water and have the relationship already built in doing hand wash stations with

bleach and Ebola awareness. And my question is do you think that is effective? And is there something else that we can add to that?

Craig Manning: Yes. I absolutely believe it's effective, indeed. Thank you for coming to the call and letting us know that you do that. The hand washing piece of this is important for a number of reasons well beyond whatever - you know what the obvious threat from Ebola. But I recognized just as you were saying a moment ago that a lot of responders, a lot of NPOs have really had to divert their program planning and their budgeting in order to accommodate this new - this outbreak of Ebola.

And the hand washing piece of this may indeed be responsible for the prevention of other diseases which we are not perhaps seeing as much of at this point in time. So the - while it is the case that it's not always easy for low literacy populations to properly mix the appropriate amount of bleach with the appropriate amount of water, the effect seems to be that people are adopting the hand washing bit going in and out of building, going in and out meeting, going in and out of homes.

And I've driven through parts of the country where I would not expect to see a bucket full of bleach. And there was a bucket full of bleach just outside a small store. So this is an important piece of it. How to add to this would be - my suggestion would be that if there is - if there are materials that you were to place alongside these buckets when they go out for distribution where they are in use.

Or you can put something adhesive on the side of this bucket or on top of the bucket that can further amplify the benefit of that bucket being there in the first place, I would say go for that. I think it's really going to have an

enormous amount of impact as people seem to be increasingly comfortable with the hand washing process.

So thank you for that question and thanks for the work.

(Mike Robertson): Thank you.

Coordinator: Thank you. The next question comes from Bisi. Your line is open.

Bisi Ideraabdullah: Yes. Let me first thank you for this eye opening conversation that we have. My name is Bisi Ideraabdullah. I'm the executive director of IMANI House. We have a clinic in Liberia, an active clinic. And we've lost two of our clinical staff.

Craig Manning: (Unintelligible).

Bisi Ideraabdullah: And one of the things - thank you. One of the things I want to bring to everyone's attention is because we have most of our clinics closed, many of the clinic staff are going out and taking private patients. While we weren't against this, one of our staff actually did this and then infected another staff. And so it's devastating. And we are closed until the 8th of October by the Department of Health.

What I wanted to ask is when is CDC is expected to be on the ground? And what will it's role be because we're looking at - I mean when you're living inside of this which we are, we're looking at you know anything is too slow.

Craig Manning: Yes.

Bisi Ideraabdullah: We're looking at the young man who passed away from our group being turned away from the treatment center. And the young lady being turned away and told she didn't have a fever so she could not be tested. And then subsequently, both of them dying. This is troubling for us. So we're looking at when are we going to have enough beds?

I'm trying to as an activist, I'm born in the United States by the way. I'm trying to see can we set up standalone early stage testing centers so that people do not have to go into an infected area to be tested. This would have to be done with highly professional people so that we don't end up with a bio-terrorism or a mistake.

Maybe people who know how to handle this type of bodily fluid. But at the same time, I have a lot of whens. I'm so sorry. You know how do we look at something like that? I'm also pushing for masking for the entire country. And the reason for that is we paid attention to our staff and the culture of the country.

And what I'm finding is that I won't put a mask on because I don't want to insult you. And you won't put a mask on because you don't want to insult me. There's a big stigma am I hiding Ebola behind that mask? And so I think masking the entire country, we're going to mask our entire community as soon as we ship the things in.

May from a social point of view, from an anthropological point of view having some impact is like washing hands. The families of those who passed away have been infected by their family members. And so we're not looking at - to this. We're looking at 14 or 16 deaths. This is traumatic. So, I'm sorry.

Craig Manning: Exactly.

Bisi Ideraabdullah: Yes.

Craig Manning: Yes. Well, thank you for those questions and thank you for those observations. Let me go back to the what I call the - for lack of a better word, moonlighting. We have heard stories similar to what you have just been sharing with respect to individuals who might be working in some clinical situation in the day time.

Or they've stopped working there. But they continue their practice. They practice as nurses and they bring you know rehydration fluid or they bring a kit for starting an IV. And they go out into the community and they practice their profession. And it's concerning in a number of ways. What we don't have a good handle on is whether those people who are going out into the community and starting IVs on perspective patients, whether we know - whether those people have the necessary skills to do that.

Whether they have the necessary personal protective equipment to work safely in a setting which might be someone who has Ebola who might be someone who has Malaria. And it's also of concern that a presumptive diagnosis is really something to be scared of because you don't want to be treating somebody for Ebola when in fact they've got something else.

So we've got to be exceedingly careful there. And as far as the masks are concerned, I realize we're getting close to the end of this hour. But I'll make this quick. The - if the masks provide a false sense of security and I have seen this countless times, especially the checkpoints in some other countries like Sierra Leone.

People are wearing the masks. But they're down on their chin. Or people are wearing the masks but they're down just below their nose but above their mouths. If people believe that this is going to protect them and then they reach with their hands to wipe the front of the mask. And then reach to their eye, to the mucus membrane, they may not be actually helping themselves or anybody else for that matter.

So if the mask is in use in a context where its purpose and its function and its value and its utility are understood and practiced, then there may be some impact there. Most of the people that I have seen at checkpoints look as if they just put on the mask because it's more - because someone told them too. Not necessarily because they understand why.

So I think we have to leave it there. It looks like I jabbered away for the better part of an hour. I thank you for your patience and for your participation in this. And I think there may be some closing remarks.

Leeanna Allen: Thank you, Craig. And thank you everyone for joining us today. We realize - we weren't able to get to all of your questions. So if you do have additional questions or if you think of something down the road, you can always call 1-800-CDCINFO or you can email us at [emergencypartners@cdc.gov](mailto:emergencypartners@cdc.gov) and we'll make sure they get routed to the appropriate CDC expert.

Also just as a reminder, the CDC Ebola website is [www.cdc.gov/ebola](http://www.cdc.gov/ebola). And we have a number of resources there. Thank you all again for joining us today. And we hope you have a wonderful rest of the day. And at this time, we will conclude the call.

Coordinator: Thank you for joining today's call. You may disconnect at this time.

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