

NWX-DISEASE CONTROL & PREVENTI

Moderator: Thelma Williams
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1:30 pm CT

Coordinator: Thank you for standing by. For the duration of today's call, all participants will be in a listen-only mode.

During the question and answer session if you would like to ask a question, please press Star 1 on your touch-tone phone.

Today's call is being recorded. Should you have any objections, you may disconnect at this time. I would now like to hand the call over to Ms. Rebecca Payne. Ms. Payne you may begin.

Rebecca Payne: Thank you. And I want to welcome everybody to our CDC Business Health Executive Quarterly call. We've been running these calls now for a couple of years.

So as many of you may be familiar with this series. I know given the topics that we'll be covering today we also have a number of new callers to this forum.

So I want to welcome you and thank you for registering.

I also want to thank our speakers who will be talking today. We've got a little bit of a deviation from our normal agenda.

We are going to forgo our getting to know CDC portion of our call today so that we can have updates on two important issues, both a flu update and an Ebola update.

But before we get into that I also wanted to share with many of you who are used to hearing from me on these calls that we have undergone some personnel changes and I have taken on a new role.

I'm still going to be very much involved with our partnership efforts in particular with the business sector but I'm pleased to introduce you to Diana Yassanye who is now stepping in as our Senior Advisor for Business Engagement within the Office of the Director at CDC.

I'm going to hand over the call to Diana and again thank you all for your continued interest in our offerings and let you know that we are continuing to expand our efforts in this arena.

And adding Diana to the team is only going to help us do that much more effectively and continue to connect with all of you. So Diana let me hand it over to you.

Diana Yassanye: Thank you, (Becky). Due to our robust agenda today and because it's a special edition of the CDC Business Health Executive call I'm going to go through some quick administrative updates and then hand it over.

First you're going to hear from Dr. Sonja Rasmussen, Acting Director of the CDC Office of Public Health Preparedness and Response on CDC's role in

the Ebola response in West Africa and recent developments in the United States. She will then answer questions addressing private sector concerns and support.

Dr. Phyllis Kozarsky will from the Division of Global Migration and Quarantine has also agreed to join us to answer questions about travel concerns and Ebola voiced by the business community.

Next you'll hear from Dr. Michael Young, Medical Officer for the Surveillance and Outbreak Response Team in the Influenza Division of the National Center for Immunization and Respiratory Diseases.

His presentation focuses on the flu season, flu concerns for the business community and ways to mitigate flu for the workforce.

We'll have two separate Q&A sessions. The first will take place after the Ebola presentation and the second will take place after the influenza presentation.

During Q&A we will take questions from callers and answer some of the questions we received via email.

We'll do our best to get through everybody's questions but we encourage you to visit CDC's website www.cdc.gov to find the latest information on the current Ebola outbreak and about seasonal flu.

You may also contact CDC-INFO, our general CDC information line by email at cdcinfo@cdc.gov or call 1-800-CDC-INFO with your questions.

Media should call the CDC Press Office at 404-639-3286. A reporting of this call will be available shortly at [cdc.gov\phpr\partnerships\ebola.htm](http://cdc.gov/phpr/partnerships/ebola.htm).

We'll also upload the transcript to the site and email a summary of the call to call participants as soon as it's available.

Please feel free to forward it to others and to email emergencypartners@cdc.gov if you do not receive a copy.

To jump right in we have Dr. Sonja Rasmussen, the Acting Director of CDC's Office of Public Health Preparedness and Response.

Dr. Rasmussen will provide an update on CDC's role with the Ebola response in West Africa and discuss recent developments in the United States. Dr. Rasmussen?

Dr. Sonja Rasmussen: Thank you, Diana. I wanted to just begin by giving some bottom line messages, some three key messages to start.

First of all the risk to the general population in the United States of Ebola is low, not zero but it's very low.

Second we'll never get back to a zero risk until we stop the outbreak at its source in West Africa.

And third the private sector is a key partner both at home and abroad.

So I'll begin with the international outbreak update. The current Ebola outbreak has created a humanitarian crisis in Guinea, Sierra Leone and Liberia.

Total West Africa cases are over 14,000 and over 5000 deaths. About half of those cases and deaths are in Liberia.

And this Ebola crisis is derailing not only lives but livelihoods in some of the most vulnerable communities in the world.

Fears of infection have disrupted normal economic activity in Liberia, Sierra Leone, Guinea, and the broader global community.

CDC is coordinating with other US government agencies. And this really is an all of government response. This is not a CDC response but an all of government response, health ministries in the affected countries, the World Health Organization and then other partners to provide epidemiologic health communications and laboratory support to interrupt and mitigate the current Ebola virus transmission.

It's important to note that this is the largest international deployment in CDC's history. Currently, we have all about 164 people internationally.

And then we have a number of people at quarantine stations throughout the United States. We also have people out working on the domestic response including people that are working on our Rapid Ebola Preparedness Teams or REP Teams. And I'll talk a little bit more about those in a few minutes.

I just want to draw attention to the recent success in Nigeria because I think that really is illustrative of what can happen if you have a good public health infrastructure in a country and there's an Ebola case that comes in.

So there was in Ebola case, a person with Ebola that got on a plane and arrived in Nigeria.

Because of the public health infrastructure that was in place, CDC had an office there working on another outbreak related to polio was able to quickly contain that outbreak by activating its emergency operation center, by isolating sick people, and identifying and tracing their contacts.

And the outbreak was stopped after 19 initial cases by identifying 894 contacts and conducting 18,500 face to face visits to monitor people for potential symptoms.

So I think that really gives a hopeful message that we can stop Ebola if we get into countries early. And as some of you may have heard in the last few days there's been some cases in Mali and we're attempting to get, do the same thing that we did in Nigeria in Mali.

So now I'm going to move on to a domestic update. And again I'm going to say this several times but the risk of an outbreak in the US is very low because Ebola is not spread like flu, it's not something that spreads through casual contact.

The other thing is that people aren't infectious before they get sick. So it isn't something where there's a period where you're infectious and then you get sick. You're not infectious until you get sick.

So that means that we can stop Ebola further spread in the United States through case finding, isolation of ill people, contacting people who are exposed to that ill person then further isolation of contact if they develop symptoms in strict infection control measures in hospitals.

And I think the events in Dallas are instructive. There Mr. Duncan as you know arrived from Liberia into Dallas and did - two other people were infected from that one case.

But it's important to note those were nurses that were very closely involved with him. All of the other contacts, all of the casual contacts, even his family contacts have now cleared their 21 day monitoring period and no one else has gotten sick.

So that's in - the cases in Dallas and the people that were exposed in Ohio. So it - as I mentioned his family members with whom he was living, so really pretty close contact when he became symptomatic also didn't get sick.

It was the nurses who were taking care of him when he was quite ill with a lot of body fluids when he was sick with diarrhea and vomiting.

So this emphasizes that Ebola is not spread like the flu. And you're going to hear about flu later, whole different picture with flu. It is not airborne and only spreads through direct contact with infected - with an infected and symptomatic person and his or her body fluid.

Sick individuals are producing the largest amount of body fluids when they are most sick. So when people are really having a lot of vomiting, diarrhea or bleeding because this is a condition that can cause some bleeding that some people are the most infectious.

That plus intensive lifesaving measures is why healthcare workers are often most at risk.

So as you heard probably on the news on Tuesday the patient in New York City has been released from the hospital.

CDC and New York City are doing monitoring of his three contacts, his three close contacts. And there is a list of hospital personnel that visited his room or the area there or worked in a lab. And that's being - they are being monitored daily.

After the first domestic case in Dallas CDC created two new types of rapid response teams, one for exam preparedness and the other for rapid response to new case.

And so I'll tell you about those two types of teams. The first is are what we're calling the REP Teams, the Rapid Ebola Preparedness Teams.

Those are to assess and assist hospitals that have been identified as candidates for regional Ebola treatment.

So the goal is to have a set of hospitals in the United States, a network of hospitals that are ready and willing to take care of a patient with Ebola to treat a patient with Ebola.

So other hospitals need still to be able to recognize Ebola and isolate that patient rapidly. And then that person can be taken to a different hospital that has agreed to treat patients with Ebola.

The other kind of teams that CDC has developed are the CERT teams or CDC Ebola Response Teams, CERT. And those are deployed when an Ebola case is identified in the United States or when health officials have a very strong suspicion that a patient has Ebola pending the lab results.

And so for example for the New York City case the REP Team had visited Bellevue prior to the case. And then the CERT team was deployed from CDC to New York City prior to the test results becoming available because we had a high suspicion that the case would come back as positive.

Additional measures in the United States are enhanced Personal Protective Equipment guidance for healthcare workers and training both live and Web based on how to put on and take off the PPE safely.

And really I think one of the things that's been recognized is that taking on and taking off personal protective equipment is something that has to be done very carefully and has to have a person who is watching that be done to make sure the people are doing it carefully.

The other thing that has been done in the United States is new movement and monitoring guidance which categorizes travelers based on risk levels on a high risk, a some risk and low but not zero risk and advise - advised measures so to active and direct active monitoring.

The active monitoring is people need to take their temperature twice a day and report to their health department. The direct active monitoring means that the health department actually has to see that person every day.

So now I'm just going to move on to some information for the private sector. The private sector can help in several ways.

One of the most important things is keeping your employees both in the United States and abroad informed, communicate with them to provide accurate information and dispel rumors.

And we know that there has been a lot of rumors, there's a lot of fear about Ebola. And it's really important for people to get accurate information so that they don't have that fear about wanting to get on a plane or other sorts of issues.

So a good place to go for information is www.cdc.gov. There there's guidance for specific occupational groups that may have higher risks of exposure to Ebola such as healthcare workers, people who work in a lab, airline personnel, first responders and funeral mortuary employees.

That is available on the cdc.gov website or some of information is available on NIOSH website that's the cdc.gov/NIOSH, NIOSH and click on the Ebola link on the right side.

There is also very specific information for people in non-healthcare business settings on the Department of Labor's Occupational Safety and Health Ebola Web site and that's osha.gov, so www.osha.gov.

Once again remember that the current risk of Ebola exposure is very low in non-healthcare workplace in the United States. Because of the active monitoring and the direct active monitoring people are being seen daily.

And so the chances that they would be out in the community with a fever - and remember if they don't have a fever, if they're not sick in some ways, they're not having some sort of symptoms they're not infectious.

So that very low chance. Currently most US employees are not likely to encounter Ebola or people infected with Ebola unless they're in those

categories in particular a healthcare worker in a hospital is treating patients with Ebola.

However use this time to make sure your business has pandemic preparedness plans and important numbers on hand like those of your state health department.

This will serve you well for Ebola preparedness and for other threats like influenza which you're going to hear about shortly.

So there is some information on the Web site that I think is very helpful. There's an Ebola versus flu fact sheet. Is it flu or is it Ebola?

I think as we're entering into flu season it's particularly important for people to review that so that there isn't a lot of fear about somebody getting a fever in the workplace.

Another thing, important for the private sector is to get involved. And financial contributions to organizations participating in response operations on the ground is by far the most effective and efficient avenue to make a vital difference.

CDC's Foundation Global Disaster Response Fund will provide assistance and supplies which enable CDC staff to respond quickly to changing circumstances. And that Web site is www.cdcfoundation.org/givenow.

The UN has provided guidance for contributions from the private sector for the Ebola response. And also the Center for International Disaster Information carries a list of organizations engaged in the Ebola response at www.cidi.org.

You can also support ongoing strategic efforts to prevent, detect and respond to future outbreaks by building the necessary public health infrastructure not only in affected countries but countries throughout the world.

And you can see the difference in countries like Nigeria versus countries that didn't have a public health infrastructure in place.

So just to give some information about the role of private sector response in Liberia Firestone was able to successfully limit an Ebola outbreak at its facilities by taking quick action.

So companies have been able to play an important role in the country. They detected the first Ebola case in - on March 30th and they've really done a remarkable job there in keeping the virus at bay.

They built their own treatment center and set up a comprehensive response. This managed to quickly stop transmission.

I think maybe now we should open it up for questions. So I think there's a lot of - I think I'll just go back to the key points again.

The likelihood of somebody in the United States getting sick from Ebola is low. We need to address this outbreak at its source and the private sector is a key partner.

Coordinator: Thank you. At this time if you would like to ask a question please press Star 1 on your touch-tone phone.

Your first question comes from (John O'Neill) with the College of Southern Nevada. Your line is now open.

(John O'Neill): Yes. Good afternoon. My question is in regards to Personal Protective Equipment as well as the training component that would support the use of that.

There's been some evolving communications from the CDC regarding the Personal Protective Equipment recommendation.

And with their latest recommendation my question is what are the specifications for the types of gloves, aprons, eye protection, etcetera? And is there a part number and a vendor that could be recommended to be able to purchase the equipment?

The recommendations tend to be broad in general in nature from the CDC, wear two pair of gloves. We're asking what type of gloves? What's the engineering spec on that?

It's recommending that there be impermeable gowns, et cetera. We would like to know what the spec is on that, the specifications.

Dr. Sonja Rasmussen: Yes. That's probably a little too much detail for me to be able to get into on the call line. But if you want to send a note to CDC INFO or call CDC INFO we can certainly get that information to you.

The information that, you know, obviously we don't want to be preferring one company over another so we don't provide specific steps but the guidance that is online does give very particular information about what's needed.

(John O'Neill): And very good. On the other you mentioned that there was some online training that would be available? Do you have how that can be accessed?

Dr. Sonja Rasmussen: Yes. It's on the www.cdc.gov Web site. There is - there are new videos that have been put on about donning and doffing.

There are also was - there has been a New York City and an LA actually major presentation program that has videos that are available on the Web site as well.

And if you have trouble finding those, again let us know and we can - I know sometimes it's a spacey Web site. It's hard to navigate. So we are happy to help you with those.

(John O'Neill): Thank you.

Coordinator: Your next question comes from (Gregory Geist) with Citigroup. Your line is now open.

(Gregory Geist): Hello. Can you hear me?

Dr. Sonja Rasmussen: We can hear you.

(Gregory Geist): Hi. My question is, is where does the world stand with vaccine development for Ebola? I've heard reports of various companies here in the United States are trying to advance clinical trials, other countries Japan, Europe.

Is the development of vaccine the silver bullet in stopping the Ebola spread in West Africa?

Dr. Sonja Rasmussen: Yes. I think having a vaccine would be a very helpful thing at this point. There is not a vaccine that has been tested that's gone through the clinical

trials that they need to be gone through to feel confident and safe of being able to use that vaccine.

And so at this point those clinical trials have started. I believe there's a clinical trial that is sponsored by the NIH that is in progress. Some of the others are going to be starting soon.

And so I think that's a hopeful thing but probably not for about my guess is -- and this is a guess -- about six months down the road.

So I think really we need to focus on now some of the basic public health measures that we know have stopped many, many Ebola outbreaks in the past and we know that worked in Nigeria and worked in Dallas.

So I think we need to work on those basic public health measures right now with the idea that we have the opportunity to do the clinical trials, get a vaccine that will be available for future responses.

(John O'Neill): Okay thank you.

Coordinator: Your next question comes from Stephanie Corona with SAS Institute. Your line is now open.

Stephanie Corona: Hello. Can you hear me?

Dr. Sonja Rasmussen: Yes.

Stephanie Corona: Okay. I wanted to ask about guidance on pandemic planning which has traditionally been focused on influenza and based on guidance from the World Health Organization.

So my question is should companies be modifying their influenza pandemic plans to be more inclusive of infectious diseases so it's a little more all hazard if you will?

And should it be based on the WHO phases or is there other some type of framework that you could suggest?

Dr. Sonja Rasmussen: Actually very interesting question. We have recently at CDC published a new framework. Instead of the US government stages that were used for previous pandemic responses there is a new framework that was published in MMWR maybe a month ago. Michael, do you want to speak to that?

Dr. Michael Young: Sure I can talk a little bit about that. And I think that going back to your question about whether companies should take their pandemic plan if they have one and adjust it to be more of an all hazards plan I think that that's one approach.

I do think that there is enough difference between pandemic influenza and other pathogens, even viral pathogens like Ebola that governments local, state federal governments and companies should maintain a separate pandemic influenza preparedness and response plan and perhaps adapt some of it to a more all-hazards approach that could be well suited to deal with something like Ebola.

I do think as Dr. Rasmussen mentioned it's worth looking at the MMWR publication of about four weeks ago that outlines a somewhat different framework, not different in philosophy or perspective, just different in nomenclature, a different pandemic preparedness framework that outlines what CDC is doing now adopts somewhat different language.

And that's a good place to start, a very comprehensive document. And it does reference the WHO pandemic preparedness efforts as well.

Stephanie Corona: And you said that's MMWR?

Dr. Sonja Rasmussen: Yes it's CDC's morbidity and mortality weekly report and published mid-October. And if you put in an updated framework pandemic influenza and MMWR it'll come up. It's on the cdc.gov Web site also.

Stephanie Corona: All right thank you.

Coordinator: Your last question comes from Paul Hodgins with Conoco Phillips. Your line is now open.

Paul Hodgins: All right. Thank you very much. We're in the oil and gas business and operate in remote locations many of which require helicopters or fixed wing aircraft that we or a vendor operate to transport workers to and from these sites.

It could be the Gulf of Mexico, North Slope of Alaska or on ships traveling around the world.

So in the event that we have a breach of protocol and someone does not disclose that they've been in contact with a patient or in a country where they've been at risk would there be any assistance with trained personnel that could help us extricate the patient from an area where there is no public transport?

Dr. Phyllis Kozarsky: This is Dr. Kozarsky. I'll try to answer that. There are medical evacuation companies that are in existence that do transport individuals with Ebola from

the affected countries to other places where they can get care if that's your question.

Paul Hodgins: Yes. Now I'm aware of Phoenix Air in Africa but I'm not aware of any US-based providers that are willing to take that risk?

Dr. Phyllis Kozarsky: Phoenix Air is actually located in Cartersville, Georgia.

Paul Hodgins: So they're...

((Crosstalk))

Dr. Phyllis Kozarsky: Although they do fly all internationally.

Paul Hodgins: Yes. Okay that's...

Dr. Phyllis Kozarsky: There may be others as well.

Paul Hodgins: Yes. I know that ISOS and Europe Assistance are not taking that risk and they're two of the biggest global players.

Dr. Phyllis Kozarsky: There are many that will not.

Paul Hodgins: Yes.

Dr. Phyllis Kozarsky: That's true.

Paul Hodgins: Yes. Okay and one other question. Is there a resource where you can identify where tests can be sent? Because some countries in Africa are sending their

tests to South Africa and the turnaround time is six days which is not great if you're trying to make a diagnosis.

That hasn't affected us personally but we need to understand are there approved labs in different countries that CDC can advise?

Dr. Phyllis Kozarsky: The three countries that have the majority of the cases I think where you would be most likely to do need testing would be done have several federal government labs. There's CDC and NIH and other federal government, Department of Defense -- other federal government labs.

I think that that's probably the places where testing would most be needed. I don't know if somebody in a different country if they haven't been one of those countries would need that kind of testing.

There is a network in the United States as well the laboratory, the LRNs, the Laboratory Research Network. It's set up to test. And there is a network of labs across the US that will do Ebola testing for a person that's returned to the US.

Paul Hodgins: Okay. Thank you very much.

Coordinator: There are no more questions in queue at this time.

Dr. Phyllis Kozarsky: Very good. Thank you (Christina). We're going to take one question that was sent to us in advance.

And the question was what can you provide major retail corporations as far as guidance of the proper communications to our associate population of both office and retail associates?

So the kind of crux of that is their basic information about Ebola, and is it prudent for retail employers to send to their associates?

Dr. Sonja Rasmussen: I think again the information that should be emphasized to employees is that the chance of encountering somebody who is sick with Ebola - and remember you have to be sick with it. You have to be symptomatic with Ebola to be able to transmit it in the general population is low.

And we have a layered system of detection and offense that includes there is exit screening in the country where people are - in the three countries where there are cases of Ebola, temperature screening, symptom screening, asking about exposures.

There's entry screening at the five airports were travelers from West Africa enter the United States. And then there's active monitoring of people at low risk and then direct active monitoring of people at a higher or a medium some level of risk.

So I think the biggest thing is to try to reassure people that the likelihood of them encountering somebody that could transmit Ebola to them is low.

Dr. Phyllis Kozarsky: And there was one other since we have time allotted. Is there more concrete Ebola response plans - is a more concrete Ebola response plan warranted by a global retail employer that has worldwide travelers?

So is there something special or more robust that needs to go into a plan for worldwide or a global corporation versus a domestic only corporation?

Dr. Sonja Rasmussen: I think what's most important is that people realize where the three countries are that have the active disease being spread now and that they go to the Web site www.cdc.gov/travel that gives the travel warnings and guidelines for countries all over the world.

There is a place where you can put in the country of travel and it will give you guidance. And depending on whether there is Ebola transmission it will make those recommendations that are appropriate.

I think that people still need to realize that many of the commercial airlines throughout Africa have - are no longer flying to these regions.

Many commercial airlines in Europe, Asia and the United States have stopped flying to these countries. The only airlines flying into the region are Royal Air Maroc and Air Brussels so that people may have to change their travel plans.

Dr. Phyllis Kozarsky: Thank you for that. Okay (Christina) we're going to go onto our next presenter now. So for those on the phone this is - I'm going to turn this over to Dr. Michael Young. He's a medical officer with CDC's Influenza Division.

Dr. Young will discuss characteristics of the influenza season in the US, briefly touch on the similarities and differences in influenza and Ebola symptomology, and provide key points for businesses during the flu season.

Dr. Michael Young: Thank you. CDC keeps track of influenza activity in the United States through several mechanisms. We have what I like to call a surveillance network which consists of several surveillance systems.

And as a summary statement I'll begin by saying all of these measures indicate that right now we are early in the influenza season.

I'll give you some numbers to demonstrate that. And the numbers that I'll discuss come from week 44 of our surveillance calendar which is the first week of November.

One of the measures that we use to track influenza activity is looking at the number of laboratory specimens that are identified as influenza positive.

Right now during this - the week that I'm giving you information on 6% of those specimens were tested as influenza.

Typically we like to say that the season has started or the season has really begun to affect the country when that number that proportion exceeds 10%.

We also look at the proportion of outpatient visits for influenza-like illness. And when that proportion exceeds 2% nationally that is another indication that the influenza season has started.

Right now nationally the number, the proportion of visit for outpatient facilities that are influenza like illnesses at 1.5%. So we are below that national baseline if you will that would suggest that the season has started.

We also keep track of the influenza like illness activity on a regional basis. We divide the country up into ten regions. All regions are currently below their region specific ILI influenza like illness baseline.

And in fact only one jurisdiction Puerto Rico is reporting any high level of influenza like illness activity. All other states and jurisdictions are reporting either low or minimal activity.

So it's possible that the nation as a whole at times can be under the baseline and we can still see pockets of high activity in certain areas of the country, area that are above their specific measures. And we are not seeing that right now. So we're seeing an overall low level of activity and we're seeing low activity throughout the country.

We also keep track of several severity measures. One of these is death due to pneumonia and influenza. And right now we are below the threshold for the beginning of the season.

And that's no surprise. We usually expect hospitalizations and deaths to lag by about one week to ten days increases in the number of cases.

We do look at influenza deaths, all influenza deaths in a pediatric population. And during a severe season we can see several hundred of these deaths and in a somewhat milder season we can see perhaps 30 to 50 pediatric deaths during the entire season.

Right now we've had one death reported during the current season, one pediatric death reported during the current season. Again that is not surprising.

We are early in the season and we expect activity to pick up. Activity will typically peak in January or February of each season. And I suspect that we'll see increases in hospitalizations and mortality across all ages several weeks after that peak.

Finally we asked state epidemiologists across the country to give us their assessment of how widespread influenza activity is in their state.

And right now the vast majority of states are reporting sporadic influenza activity. This is a measure of the geographic distribution of influenza, not the intensity or the height of activity. And sporadic activity is one step up from no activity.

So as a summary very low levels of activity throughout the country, not surprising. We do expect flu activity to pick up over the next several weeks. And as I said it will likely peak in January or February.

One of the things that we recommend every year to prevent influenza, perhaps the best thing that people can do is to get vaccinated. We have a universal vaccine recommendation.

We strongly encourage everyone six months of age or older to be vaccinated.

In addition to vaccination we recommend influenza antivirals as a good second line of defense against influenza and complications from influenza.

And we also recommend that people throughout the influenza season practice common sense every day preventive action such as respiratory etiquette which means covering your cough or sneeze, good hand washing and then avoiding people who are sick and avoiding others when you yourself are sick.

In spite of all these recommendations we do see 5% to 20% of the US population become infected with influenza every year.

That results in approximately 30 million outpatient visits during every influenza season up to 200,000 hospitalizations due to influenza and up to almost 50,000 deaths every year due to flu.

To put these in some economic terms we anticipate that there are over \$10 billion in direct medical expenses that can be attributed to influenza, up to 17 million working days that can be lost due to influenza and over \$16 billion in lost earnings every year due to flu.

This results in an aggregate total of over \$87 billion in a total economic cost to the country every year due to flu.

So what can the private sector, what can businesses do to help prevent some of the infections and some of the cost of public health and economic costs due to flu every year?

We recommend two broad categories of actions. One is vaccinate, hold a vaccination clinic in the workplace, make it easier for people to become vaccinated.

If you have not already done that it is still not too late to have a vaccine clinic, influenza vaccination clinic in your place of business and encourage your employees to be vaccinated.

Second we recommend that you promote flu vaccination in your community among your employers but also among your community members.

In lieu of going into the details of these broad strategies I'd encourage you to look at a - an informational packet which describes these in great detail at the Web site cdc.gov/flu/business.

So I was asked to talk a little bit about influenza and Ebola to compare and contrast the two. And I will do that very briefly. And I'll focus I think on the contrasting part because I think these are two very different infections, very different diseases.

So you've heard about how Ebola spreads and what kind of disease it causes. Influenza is despite being a viral pathogen is very different virus. It causes very different disease.

It causes much less severe disease. I think Ebola historically has resulted in case fatality rates exceeding 50% and sometimes approaching 100% whereas a case fatality rate for influenza that exceeds 1% would be considered a, perhaps a public health emergency -- very different levels of severity.

Influenza is spread primarily via respiratory droplets when you cough and you sneeze. And Ebola as you heard is spread only by direct contact with blood or other body fluids from someone who is symptomatic with Ebola infection.

Interestingly influenza can be passed from one person to another up to we think about a day prior to symptom onset. So that's another difference between influenza and Ebola.

Ebola can only be transmitted from a symptomatic person to another person and you can transmit flu up to about a day before you become symptomatic yourself.

Who gets the flu? Really anybody can get the flu. It's tough to tell sometimes who has it. And in your normal interactions at the workplace or in the

community it's very reasonable to expect that you'll come into contact who has - with someone who has influenza.

I think to get Ebola you really need to know somebody who has Ebola. You have to be a healthcare worker who is taking care of a person who is actively ill with the disease, or you have to be a close friend or family member of somebody who is sick with the disease.

Now there are some similarities in the signs and symptoms for influenza and Ebola. Both will cause fever. Both can cause headache and both can cause muscle aches and pains. They can also both cause fatigue.

But I think that the level of severity in these symptoms is quite different. And I think it's probably best to focus on exposures differentiating influenza from Ebola.

It's a very - it's not surprising to get the flu in this country. Five percent to 20% of people in the country will get the flu every flu season.

I think it's very unusual to encounter somebody with Ebola. And I think that it would be very unlikely for anybody who's not a healthcare worker to ever encounter a patient, a person with active Ebola disease in the United States right now.

Let me stop there and see if there are any questions.

Coordinator: We do have a question in cue from (Mike Mooney) from Steri-Clean. Your line is now open.

(Mike Mooney): You know, I apologize. I was actually trying to ask a question with the earlier topic we were on. It was actually regarding I was wondering if people that are going to be cleaning these scenes up that are, places that are affected with Ebola, if they're going to be put into a quarantine if that's in the plans?

Dr. Sonja Rasmussen: People who are in appropriate Personal Protective Equipment wouldn't be put in quarantine but they would be considered part of the active monitoring.

So they would be considered at low but not no risk. And so they would not be quarantined but they would be talking to their health department on a daily basis.

If there was some potential breach in the Personal Protective Equipment then there would be a higher level of certain...

(Mike Mooney): Okay thank you.

Coordinator: Your next question comes from (Sally Davila) with Chevron. Your line is now open.

(Sally Davila): Yes hi. I was calling because I wanted to ask I recently read an article from Dr. Blaylock regarding the level of mercury in the flu vaccine and thought that it decreases the immune system especially in children. Do you have any feedback for that information?

Dr. Michael Young: I apologize I have not read that paper by Dr. Blaylock but I can comment broadly about the safety of the influenza vaccine.

And I think that it's a very, very short statement that I can make. We've used influenza vaccine for decades in the United States. And we've used it very successfully and very safely.

It's been one of the safest vaccines that we've offered in the United States and very, very few people have any side effects after getting vaccinated with influenza.

And the majority of people who do get side effects typically have very localized reactions either soreness over the injection site or sometimes a very transient, very temporary low grade fever or maybe a day or so of general achiness.

(Sally Davila): Okay. But the level of mercury is not a concern as far as like an immune depressant?

Dr. Michael Young: I'm sorry I haven't read the paper. I'd like to read it before commenting.

(Sally Davila): Okay.

Dr. Michael Young: If you give me that opportunity I'd be happy to get back with you.

(Sally Davila): Okay. All right. Thank you.

Coordinator: Your next question comes from (Mary Pesch) with Abbott Laboratories. Your line is now open.

(Mary Pesch): Hi. I just wanted to say your - or your facts sort of at the beginning about the 5% to 20% and all the costs and so forth were excellent.

I wasn't able - I kind of would love to see those. Are they anywhere in print or anywhere on the Web site? Is there a way to get those statistics?

Dr. Michael Young: They are on our Web site and I'm trying to think of the best combination of words you can use to find that.

I know that they are on a Web page affiliated with CDC, specifically with the CDC Foundation.

And if you searched for those terms and influenza economic costs and I think Diana is about to chime in with more specifics.

Diana Yassany: I have it. In fact flu prevention specifically and the impact to the business community was the - was highlighted in the last Business Pulse Infographic with CDC Foundation.

And so the address it can be linked to cdc.gov but also is at cdcfoundation.org/businesspulse -- all one word. And it's the latest; it's highlighted as the current Business Pulse Infographic. So again that's cdcfoundation.org/businesspulse.

(Mary Pesch): Thank you.

Coordinator: Your last question comes from (Terry Mullarkey) from Virginia EMTs. Your line is now open.

(Terry Mullarkey): Yes hi guys. This is a holdover from the Ebola session. Greetings from the Eastern shore of Virginia.

Is there a chance that you can contract Ebola transdermally?

Dr. Sonja Rasmussen: Our best evidence right now says that people are exposed if there's exposure to blood or body fluids through open skin or mucous membranes, you know, in the eyes, or in the mouth or something like that.

So I think it's always hard to absolutely prove that something is not through the skin because so many of us have little breaks in our skin at all times.

So I don't think you could say "well I'd be okay picking that up because I don't have any breaks in my skin" because you may have breaks in your skin that you can't see.

So I just don't want to say no that's absolutely not possible but the evidence that we have says it's mucous membranes and breaks in the skin.

Coordinator: There are no more questions in queue at this time.

Diana Yassanye: All right. In that case we will give you back a couple of minutes. So thank you very much all of our speakers and participants for joining the call today.

We will send a summary of this call to participants as soon as it's available.

If you have additional questions you can email them to cdcinfo@cdc.gov or call 1-800-CDC-INFO. Please continue to visit our Web site for information and updates cdc.gov/ebola or cdc.gov/flu or just cdc.gov for all sorts of good public health information.

So thanks again for your interest and engagement and operator this concludes our call for the day.

Coordinator: This does conclude today's call. All participants may disconnect at this time.

END