

Transcript of CDC H1N1 Call with Businesses
12 June 2009
2:00 – 3:00 pm ET

Coordinator: Welcome and thank you all for standing by. At this time all participants are on a listen only mode. During the question and answer session please press star 1 on your touchtone phone to ask a question.

Today's conference is being recorded. If you have any objections you may disconnect at this time. And now I would like to turn the call over to Julia Smith-Easley. Thank you. You may begin.

Julia Smith-Easley: Good afternoon everyone. Thank you for joining us today. Again I am Julia Smith-Easley with CDC's Division of Partnerships and Strategic Alliances.

The purpose of today's call with the private sector is to provide an update on the novel H1N1 influenza investigation and to also discuss the WHO Declaration of Pandemic Phase VI that was made yesterday, June 11, 2009.. We will have a recording and a transcript of this call available on CDC's H1N1 Web site early next week and I will provide details for accessing these at the end of the call today.

With us on today's call are Dr. Anthony Fiori, Medical Epidemiologist with CDC's Influenza Division and Lisa Koonin, Senior Advisor with CDC's Influenza Coordination Unit.

We will begin with an overview from Dr. Fiori about the current status of the H1N1 investigation and then have an overview from Lisa Koonin about the Pandemic Phase VI and what this may mean for the business community.

Following the updates we will open the line for questions. And Tony I will now turn this over to you.

Tony Fiori: Well thanks very much. And thanks for inviting me to join this call. As you mentioned, my role here is to provide an update and some background to give some context to the discussion that will follow. You have joined the call of course because of the fact that we have seen human illnesses with the novel H1N1 virus of swine origin. That means it is more similar to viruses that were circulating in swine up to this time.

It has spread throughout the world over the past six weeks after the initial detection within the U.S. It actually gets more like seven or eight weeks at this point. So it is being transmitted in communities all over the world for the past several weeks. And that is why WHO has declared this pandemic Phase VI. And this declaration has more implications for other countries than it does for us.

We have been operating under the assumption that we are moving to Phase VI for the past several weeks. It has been pretty clear.

At this point, there have been almost 29,000 reported cases coming from - reports coming from over 70 countries and that includes nearly 18,000 cases in the United States.

It is also important though to recognize that there are many more than this number of cases in reality because persons often do not get tested either because they have a mild illness and they appropriately stay home and do not necessarily need to seek medical care.

But because they are in an area where there are already many cases identified, and when they discuss with their clinician their illness, they (do not) seem to have this virus and they do not actually get testing. And again that is also appropriate behavior if they are not particularly sick or they do not have underlying conditions that predispose them to be particularly sick.

So these folks do not show up in the statistics. And that is why I say this 29,000 overall reported cases is probably just a proportion of the overall total cases that are out there. Some of them have not gone diagnosed (here).

A large proportion of cases in the U.S. have occurred in a limited number of states and cities. The highest impact states thus far have been California, Texas, Arizona, New York, Illinois, Washington, Wisconsin. In the last week we have heard about lots of cases in Massachusetts and Connecticut and New England appears to be getting a lot of activity right now.

And then again, this activity has waxed and waned in some of these areas and it is varied a great deal by community. There are some states that have been relatively unaffected. And this is not unusual for influenza to have this sort of sporadic pattern like this.

We expect transmission to continue in the U.S. over the summer. We typically see seasonal influenza that is different than this outbreak, in the northern hemisphere in January or February. And outbreaks can begin as early as October which means that we might see a really odd looking flu season this year with continued transmission of this novel H1N1 virus, and with potentially having seasonal viruses show up at their usual time and having circulation of a number of different influenza viruses at the same time.

Or it is also possible that the seasonal flu will be dampened this year. It is also possible that this virus will fade out as the seasonal flu season begins.

We just do not have enough experience to really make this prediction at this point. But we are planning - for planning assumptions, we are planning on a worst case scenario which is that all of the viruses circulating through the flu season.

Transmission is also now occurring in the southern hemisphere and that is typical to see influenza transmission pick up at this time of year because it is their winter. We are seeing cases of both seasonal flu and this novel H1N1 being reported in countries including Argentina, Chile, South Africa, and Australia.

And for those of you who have business partnerships in these areas, the best way to keep up to speed with this is to check, sorry, the World Health Organization Web site on a regular basis or even potentially check the county public health Web sites themselves which will hopefully be getting updated on a regular basis.

The illnesses caused by this influenza virus looks a lot like seasonal influenza. And what this means is that there is a wide spectrum of ways that people

present with their illness, anything from a mild brief upper respiratory illness with some fever that might not even prompt a call to a clinician or does not prompt anything other than staying home for a couple of days to moderate illness that causes a person to miss a week or more of school or work to more severe illnesses which can include hospitalization, intensive care unit admissions or even death.

And thus far in the U.S. we have seen 1621 hospitalizations as of today and 45 deaths. Again this seems like a lot when you take it - when you put it - use it as a denominator over the 17,000 cases reported. But remember we are much better at identifying these more severe cases, people that go to a doctor and are really sick and have to go to the ICU do tend to get a diagnosis.

And so the spectrum of illness, while it includes severe infections, for the most part most people will have a relatively mild and typical influenza like illness. It is enough to maybe knock you out for a few days, but it is something that might not necessarily require anything more than staying home and treating your symptoms.

The outbreak has been unusual compared to seasonal flu in a couple of ways. One of them is that there has been higher illness rates that the illness rates, including the severe illness rates, have been higher in young children and young adults compared to older adults.

So just looking at the statistics right now, approximately 1% of the total confirmed cases have been among persons 65 and older and persons 65 and older are about 4% of the hospitalized cases.

Now in the general population, persons 65 and older are about 13% of the general population. And that indicates that the deaths and hospitalizations in

this age group are disproportionately low. And the reason that is important is that that is really different from seasonal flu because for seasonal flu we estimate that over 60% of hospitalizations, over 90% of deaths are in persons 65 and older.

So there is this striking contrast with this new virus, that it is hitting persons in younger age groups. And that of course would include much of the workforce as well as their children when they might have to stay home either for their own infections or for their children's illnesses.

Certain medical conditions, just like with seasonal flu and including pregnancy, are recognizes increasing the risk of complications. Among persons that have been hospitalized thus far that we have enough information to look at, 71% of them had one or more high risk conditions which include things like heart conditions, lung conditions, but also includes things like pregnancy. In fact 7% of those hospitalized persons were pregnant.

However, we are going - we have seen and we are going to continue to see healthy persons that have severe illness. It is not going to be that common, but it is important to recognize that you do not have to have an underlying condition to get severe illness.

So let me just say a few words about the development of a vaccine against this novel influenza H1N1. As you know, a couple of weeks ago Secretary Sebelius announced that nearly a billion dollars that was going towards vaccine development and manufacturing and that is on top of a considerable investment that has been made in the past couple of years to increase our capacity to rapidly make an influenza vaccine anticipating a pandemic such as this.

We know however that even with our best case scenario that the vaccine takes 20 to 25 weeks at least to go from the point of having a siege strain to the point of having a vaccine that can be distributed to people. And that is because you have to find a good virus that is a good candidate for making a vaccine. You have to make - you have to alter the virus in such a way that it can be grown in bulk.

We have to see how well it stimulates an immune response in both animal studies and in people. You have to look for signs of safety issues in those early studies, and you have to figure out a way to scale up to a manufacturing process that includes rigorous quality control and can also make hundreds of millions of doses. It is quite a challenge.

The money that has been provided most recently is going to go towards things like clinical trials that will be carried out through the National Institutes of Health and in collaboration with the manufacturers and with guidance from the Food and Drug Administration and from BARDA which is a part of HHS called the Biomedical Advanced Research and Development Agency that works on pandemic influenza matters.

There are five different manufacturers that HHS has contracted with. And there is at this point procurement orders both for the vaccine antigen, that is the part of the vaccine that stimulates the immune response as well as the - an additive called an adjuvant which can boost the immune response further.

It is not certain if we will be using that adjuvant but again the planning assumptions are such that we want to look at worse case scenarios and I want to look at how to make a vacc - the most amount of vaccine go the furthest.

So in summary for the vaccine we need to be able to manufacture a vaccine in case there is a decision to use it. We need to have it on hand. We have not yet made that decision on whether to use the vaccine. That is going to depend on the scientific data that comes in over the next few weeks and months.

And those decisions will be made at a Federal level whether it is recommended, as many other countries will make their same sorts of decisions.

But having these orders in place and starting right now gives us the flexibility to be able to start a vaccine campaign if it is necessary to keep our options open.

So I will finish up with just a few words about vaccination in the fall. I mentioned that we do not know what is going to happen with seasonal influenza virus nor with this new novel H1N1 virus.

We do not know if it is a virus - the new virus will crowd out the usual food viruses, whether there is going to be many flu viruses circulating, whether we will continue to have this same degree of transmission that we are seeing right now right through the summer whether it is going to fade off in the hot weather like seasonal flu viruses typically do.

So we are preparing what we think is most likely again a worst case scenario which is that we are going to need to have a typical seasonal influenza vaccine campaign just like always. And in addition, perhaps later in the fall, we will have to roll out a novel influenza H1N1 vaccine campaign.

Now if that novel H1N1 vaccine becomes available, it is probably not going to start becoming available until October or later. It is also probably going to be

given in a different way. It is not just going to be added to the seasonal vaccine.

It is probably going to need to be a single antigen vaccine. That means it will only have that one component of novel influenza virus in it. It is going to begin as Federal program. It will probably be administered in a somewhat different way and won't necessarily at least in the early stages go through the typical commercial distribution channel that seasonal flu vaccine does. But all of that is still in the process of being decided at this point.

So businesses that are looking at what they need to do as they approach the fall knowing that vaccine is - when it becomes available it might be in short supply and will not be able to come available potentially until there is a lot more transmission of this novel H1N1 are going to have to fall back on the usual basic measures to prevent flu. And that is having sick people stay home until they are well, letting their kids stay home from school so that we do not have accelerated transmission in school, avoiding contact with others, basic things like covering coughs and washing hands are surprisingly important. They are basic but they are still important.

And finally thinking about for persons, for especially for your workforce who are at higher risk of complication, those who are pregnant or who have chronic medical conditions that they seek medical care if they develop what seems like influenza.

The people with severe respiratory infection that comes on suddenly, even if they are already healthy, seek medical care because there are antiviral medications available. These medications are quite effective, including against this novel influenza H1N1 virus.

They can shorten the duration of illness. They can reduce the severity of the symptoms, but they need to be given early if they are going to be effective.

So I think I would end this background discussion with encouraging everyone to be quite flexible this year that things are going to change potentially rapidly. That guidance - various types of guidance might change as we learn more about the science.

As we have vaccine become available, we will need to keep testing for all kinds of different things including whether the virus is changing, whether there is anti-viral susceptibility issues. But at this point, the best - I think that the best message I can tell folks is to just keep abreast of what is going on. I think the CDC.gov Web site is a great resource for this. The WHO Web site for international issues is another great resource. And be prepared for change. It certainly will be changing over the course of the next few months and probably right through the regular seasonal influenza season.

So we are looking at the next eight months being a pretty exciting time as far as flu goes. Thanks.

Lisa Koonin: Thank you Dr. Fiori - excellent background comments. Let me start by talking about the latest announcement that the World's Health Organization gave to us yesterday which was raising the worldwide pandemic alert level to Phase VI.

Designation of this phase means that there has been widespread - a global spread of this H1N1 virus. And there is now community level outbreaks not only in North America, South America, but most places around the world.

What is really important here is to understand that this designation of a Phase VI is not an indicator of severity. That does not mean that things got worse. What it means is that the virus has now sustained transmission between person to person in many, many, many places around the world.

And that is a very important thing for you to know because it has direct relevance to your planning.

WHO's decision to raise this pandemic alert level to Phase VI is to assist countries, to assist governments and private sector and citizens to be prepared and to act appropriately for this infectious disease.

And for the CDC, there is no recommendations that we are changing right now for individuals, for states and communities because we are recommending guidance based on the extent of illness that we see here and the severity that we are seeing here.

And as you know, we have been preparing for some time for this. And many of you have been preparing as well. We are actively and aggressively implementing our pandemic response plans and we know that at the onset of this disease when we first noted it in the spring, it was quite disorienting.

We were not prepared H1N1 pandemic. We were certainly focusing a good bit of our attention on the H5N1 virus and the spread that was ongoing in Asia and in the Middle East. And I think a lot of us including businesses may have been a little caught off guard by this.

So here is what I want to say to you. And first of all, there are two words that I want you to remember. One is uncertainty. And because there is uncertainty on how severe or serious this novel H1N1 virus will be in terms of how it will

come back in the fall to the U.S. and to the northern hemisphere, we have to be, as Doctor Fiori said, flexible. We have to make sure that in our planning we not only plan for a severe situation, but we also plan for a moderate situation.

One of the new things that WHO has announced is a new three point severity scale of mild, moderate and severe. And at this time, WHO has indicated that the H1N1 outbreak seems to be moderate or moderately severe. And that severity index is a guide for countries and communities on how to act.

However the second word I want you to remember is a long one, but it is heterogeneity. That what that means is, is that we really saw a different picture depending on where we look.

In the United States some communities were hardly touched by the disease at all where other communities were - had explosive outbreaks and the same around the world.

Some countries are being hit right now and adjacent countries are not having a large amount of disease. As we see this new virus adapt to humans, it is not unusual that we see such erratic behavior.

But what this means is is that what we need to do to protect our population and protect the health of people really has to depend on what we are seeing on the ground level. And the transmission varies from person to person - excuse me varies from country to country largely because of a whole host of factors.

Like I said, the virus is new. It is still adapting to human to human. It may also - the impact may also be related to the healthcare capacity in that country, the

timing that people seek medical care, their health status or nutritional status and effectiveness of efforts to reduce transmission.

So we are going to see a more and continued heterogeneity or different pictures all over the world. But as we study this intensively over time, we will become more familiar with it, we will learn more, and as Doctor Fiori said, our guidance will likely change.

One of the things that we have learned during this outbreak is we need to be nimble. We need to be able to assess what is going on and tailor our response based on that picture. And that is what businesses need to do as well.

So let me talk about the implications for businesses and what this might mean for your planning. First of all, you should be very tied in to local and state as well as federal recommendations and reexamine your business plans based on where you have a footprint and what is going on in that local area.

If you have operations in other countries, you definitely need accurate and timely information about what is going on with local conditions and what the public health recommendations are and actions that are being taken in those areas, and setting up (feeds of) information now. It is going to be important now and also critical for the fall.

Now many of you have already done your planning that were linked to assumptions of severity. And those assumptions may exceed the current scenario.

Therefore it is really important to take time, particularly in the northern hemisphere while we have continuing disease but not quite explosive disease as other places to really look at your plan, to think about how you would

implement those plans if we see a reemergence of disease that is similar to what we have experienced in the spring or something that might be more severe.

You should again make sure that you know about reliable sources of local information. And what we are going to understand more and more about this disease is how it affects people, but one thing we do know, and that is because it is a new virus, most people will have no immunity.

And our number one control strategy in that situation is keeping sick people and well people apart. And therefore, as Doctor Fiori said, it is very, very important that employers encourage sick workers to stay home and away from the workplace.

This is something that CDC has been discussing with businesses for a good bit of time. And it becomes even more important now that we have a real outbreak going on with the real possibility of its return in the fall.

Leave policies for this outbreak need to be formulated now because it takes time to get those leave policies approved if there is not already a standard sick leave policy for all employees. Those leave policies need to consider sick employees that may just need to stay out for seven or up to ten days perhaps if they are sick.

And also leave policies that provide the allowance for people to stay home and care for sick family members or parents who may need to care for small children if schools are dismissed in the fall if we see a particularly severe outbreak.

Now also the not only protecting a workforce is a key consideration, but also planning for business continuity. It is very important to essential - to identify essential business functions.

It is important to identify those job positions in business that are so critical to the operations of the business that there needs to be a redundancy or protection of those employees.

And there needs to be an assessment of supply chain and other critical inputs to see about making alternative plans in case they may be disrupted.

Now it is very important that employers understand that planning now is really going to be important. It is not going to be possible to pivot on the fly if we are hit with a severe outbreak in the fall.

So I encourage you to spend the time that we have now looking at your HR policies, looking at your workplace flexibilities, looking at pay and benefit structure, and perhaps even going ahead and telling employees that you are planning for a possible fall outbreak.

You may not choose to give the details of those plans right now, but if you do explain to your employees that you are planning, perhaps they will understand what better to do come fall.

Now it is - many employers have developed those plans. If you have not begun those plans, we would encourage you to start planning now. On www.pendemicflu.gov, we have a number of tools and guidance pieces that have been developed to assist employers in planning.

This novel H1N1 pandemic, whether it is mild, moderate or severe, really affects us all. And this is a situation of shared responsibility. And that is it will take the effort not only from government to make sure we survive intact as a country as communities through a particularly severe outbreak, but we also need other sectors to participate in this effort including healthcare and businesses in the private sector.

We must really tackle this together. And we must be informed about the recommendations that are needed and try to align our business practices with those public health recommendations to get the best output possible.

So let me stop here Julia, And Doctor Fiori and I are here and we can take questions Operator.

Julia Smith-Easley: Operator, could you let people know how to ask their questions and then we will turn it over to the first question.

Coordinator: Thank you. At this time if you would like to ask a question please press star and then 1 on your touchtone phone. Please unmute your phone and record your name clearly when prompted. Again to ask a question, please press star 1 and record your name.

Our first question comes from Doctor Will Sawyer, Clean Hands Coalition.
Sir your line is opened.

Will Sawyer: Hi. I am Doctor Will Sawyer. Actually I am a practicing family physician as well and there is a coalition that has been created to promote clean hands save lives. And so CDC and prevention has done a great job of evaluating and following and tracking, and you are asking us all to implement a plan as an

employer in the future, but you are not really giving us the tools that are absolutely critical.

So what I would ask people to - the American Medical Association had endorsed the four principles of hand awareness which you can Google and figure out. There is - the Clean Hands Coalition talks about as well, clean hands save lives as well because it - for employers it is critical to give your employees specifics on what to use.

So I would then ask the CDC at least particularly when are we as the CDC going to promote that. And the fourth principle is do not touch your eyes, nose and mouth because they really do not talk about that yet, just hand washing and covering of coughs.

Lisa Koonin: Well thank you Doctor Sawyer for your comments. On contrary, we actually had been heavily promoting hand washing, covering your cough, cough etiquette and not touching your nose, eyes or mouth. And in fact on our Web site in many, many places, we have posted flyers and posters that employers can download about covering your cough, the clean hands save lives posters, slides and buttons. We have podcasts about this and we are disseminating this pretty broadly.

In fact, I would encourage you to look on www.cdc.gov on our H1N1 flu site and there is a specific page for businesses that has a listing of resources and tools.

Man: Yes. Yes.

Lisa Koonin: Thank you for your comments.

Julia Smith-Easley: Operator could we have the next question please?

Coordinator: Thank you. Our next question comes from (Tom Bach), Reeckitt Benckiser.
Your line is opened.

(Tom Bach): Yes. First of all I would like to thank you folks at the CDC. The job you are doing in covering this is just outstanding. My question is has - in your studies of this particular virus strain, have you learned anything new regarding why you feel it is spreading at a time when typically seasonal flu is waning off?

Tony Fiori: Yes, that is a good question and no we do not know why it is spreading at this time. This is the kind of thing though that has been seen with some of the other pandemics where you had a somewhat unusual timeframe when the virus spreads.

It does certainly make you wonder about seasonal flu and whether it is really the weather or the dryness or whatever that causes it to wax and wane. Maybe we are just learning a little more now that maybe there are other factors involved, maybe underlying immunity in the communities or something like that that are in play here.

But no, we do not have a molecular marker of why this is spreading during warmer months or some immunologic reason for it. It is and it's something that has been observed with some other pandemics that have had unusually early starts to flu seasons or even spread during the late spring or summer.

(Tom Bach): Thank you.

Julia Smith-Easley: Next question please.

Coordinator: Next question comes from Bill Jones, National Safety Council. Your line is opened.

Bill Jones: Hello. Hello.

Julia Smith-Easley: Hello.

Bill Jones: Hi. I just have a question for you Doctor. Certainly this is airborne, but do we know how long the virus lasts in the air?

Tony Fiori: No we are right now working under the assumption that it is similar to other influenza viruses where it is mostly spread by large droplets which really do not travel very far, maybe three to six feet and also direct contact with people's hands and so on.

It is - I think there is - while there are not sort of experimental model systems that have fully proven this yet for this particular virus, I think the fact that our secondary attack rates are on - really on the order of what seasonal flu secondary attack rates are, you know, in the neighborhood of 10, 15% or maybe even lower than some seasonal flu studies does - has lent some support to this idea that it is not going up into the air like a measles virus does.

There is lots of - no everyone is susceptible or at least all of the young people are susceptible. And yet you do have, even within households, one sibling getting infected and the other two not getting infected. In fact that is the most common scenario.

So it is - so it probably is spread the way seasonal flu viruses are, perhaps even a little less efficiently than they are spread. But still a substantial secondary attack rate.

Bill Jones: Okay. Thank you.

Julia Smith-Easley: Thanks. Operator, next question please.

Coordinator: We have a question from Citigroup New York. Your line is open.

Go to the next question. One moment.

Julia Smith-Easley: All right. Next question please.

Coordinator: We have a question from Deloitte, Ohio. Your line is open.

Katie Gray: Hi there. My name is Katie Gray from Deloitte. I have a question about the WHO three point severity index that was mentioned early on in the call. I did listen to the press briefing yesterday and was just curious and I haven't (seen anything) on their Web site either.

I have not (seen anything) detailing the three point scale, the mild, moderate and severe. We looked for that yesterday when - in terms of communications to our people, but there was nothing articulating other than they did refer to the severity as moderate. Is there any additional information there?

Lisa Koonin: No, I do not believe I have seen any. But keep posted. I know that there is a big demand for this and they probably will post something relatively soon.

Julia Smith-Easley: Thank you. Next question please?

Coordinator: Question from (Rich Pfeiffer) New Jersey. Your line is open.

(Rich Pfeiffer): Hi this is (Rich Pfeiffer) from Medco for just echoing the previous caller that complimented CDC. You are helping us so much here.

We are seeing a lot of situations where community physicians are sending people with influenza like illness back to work and school within one day of resolution of fever. And CDC guidance has been really clear and really helpful here particularly for those diagnosed with H1N1, the seven days or symptoms plus a day whichever is longer.

And I would like to ask for your help in responding to cases of influenza like illness that may not have been diagnosed as H1N1 either clinically or by testing. There are two parts to my question. Let me briefly summarize them.

The first is as a matter of corporate policy, would you recommend that all suspected H1N1 according to case definition, or even cases where doctors merely diagnose “the flu”, you know in quotes “the flu” conform to this seven day or symptom plus a day policy?

And then the second is an extension. What if testing shows non-H1N1, another Influenza A or even Influenza B, you know, prior to this whole outbreak we would not have been so rigid about keeping people out of work. So could you help me with those?

Tony Fiori: Yes. I will try to. The - this has certainly been an issue that we have struggled with and that we continue to reevaluate it as we learn more. The original recommendation for seven days or 24 hours after resolution of symptoms was, as you might imagine, made out of an abundance - attempted to have an abundance of precautions here.

That we thought it was possible and actually had some data based on other swine flu viruses that is shedding might be a little more extended. People who are not - who do not have any underlying immunity might sometimes shed the virus longer. And then so the thought was that there may be an expanded window of time when people might be infectious.

We still do not have the science really to evaluate whether that is true. People certainly do shed and can - we can detect virus in people's respiratory secretions in seven days and in some cases longer. And we detect that - we are using very sensitive tests like polymerase chain reaction which detects the virus but does not really tell us much about how infectious the person really is.

In other words, we might be finding the remnants of what was much more virus a few days earlier and the person may not be infectious at all or may just have a really low infectiousness.

So it is something I guess I would say stay tuned on that. I think we - at this point CDC continues to recommend the seven days or 24 hours after symptom resolution, whichever is longer.

I think we need to provide folks with a little more guidance with regard to that - with regard to what sorts of symptoms the people can have after influenza and they commonly have after influenza that can actually extend beyond seven days sort of - the sort of lingering cough or the continued fatigue or so on.

I think we need some more specificity there and I think you will see some more specificity in the next couple of weeks.

Let's see your - forgetting your second question. I know I should have written it down.

(Rich Pfeiffer): Well I could clarify - actually both questions assuming that we stick with the seven day or symptom plus a day because that is (unintelligible) now...

((Crosstalk))

(Rich Pfeiffer): ...to clarify when we do not know whether it is H1N1 and does it apply when we do know it is not H1N1, it is another Influenza.

Tony Fiori: Well I think the second part of that is easier to answer. The previous guidance for seasonal influenza, you probably already know, is - was stay home until you feel better and 24 hours after your symptoms have resolved. And that - in many cases that might have been more in the order of five days or something like that.

And so if you know you have an Influenza B or an Influenza H3 or a non-novel H1, I do not know if it might be hard to know that, then yes, I think it is reasonable to go back to the old guidance. I know that is very confusing.

For cases where you are making a clinical diagnosis and you do not know which virus you are dealing with, you have co-circulation of a couple different viruses, I think you are stuck with assuming this is novel H1 unless you have pretty good information that this person is in a, you know, people around them have been diagnosed with novel H1 or something like that or with H3.

Unless you have some good inferential information that you can use to indicate that it is one of those viruses or the other, I think we - this is one of

those guidances that is being actively reexamined right now and we recognize it has been a real challenge to implement and that is has been quite confusing.

I think you will see some more information about this in the next week or two.

Lisa Koonin: But the implications for business planning, thank you Doctor Fiori, is that be prepared to allow workers to stay home for that time period in your planning, particularly for the fall. Reducing transmission in communities will be very important at that time.

The second piece of that is do not ask for a note from the doctor to clear somebody back to work. Even in the outbreak we had now, in the communities that were affected doctor's offices and emergency rooms were swamped with people.

And it will be highly unlikely that people will be able to get notes in a timely way to get back to work. But if they are - tell you that they are symptom free for at least 24 hours and it is seven days since the onset of their illness, they should be pretty good to go to come back to work.

(Rich Pfeiffer): ...you very much.

Julia Smith-Easley: Thank you. Next question please.

Coordinator: We have a question from (Larry Tacker), Tyco. Your line is open.

(Larry Tacker): Good afternoon. Again CDC thanks for the effort and for the call. Two questions regarding travel. Some employees have noticed when they travel in airports, people are wearing breathing protection, whether it is respirators or masks and some employees have said hey do they need to do that.

And then on a similar note with travel, I heard something that TSA is considering checking travelers that appear ill doing a quick ear temperature check. Is that something that is going to happen in process? I just want to know the right way to respond to employees asking these questions.

Lisa Koonin: Those are very good questions. First of all, at this time CDC nor the World Health Organization recommend any travel restrictions, any border closures. And in addition, we do not recommend any personal protective equipment like a mask or a respirator to be used during travel.

Just to let you know as a matter of course, the TSA officers are trained to observe for illness in their day to day interactions with passengers. If they observe someone who appears to be ill with some sort of infectious type disease, then they have a protocol to deal with it.

In this country right now, we are not doing any kind of screening at airports. But if TSA does notice somebody who is obviously ill, it is their standard protocol to call health authorities who might be stationed at that airport to assist.

(Larry Tacker): Okay very well. Thank you so much and thank you for your effort.

Lisa Koonin: Thank you.

Julia Smith-Easley: Next question please.

Coordinator: Question from (Kimberly Neubauer) HealthString. Your line is open. Your line is open (Kimberly). Please check your mute button.

(Kimberly Neubauer): Hi. Thank you. I have a question regarding people who have been diagnosed with H1N1 or if they have not been diagnosed with it. Do they carry with them an immunity to this flu and then would they then not require a flu vaccine this fall?

Tony Fiori: Hi. That is a good a question that. You likely, if you have recovered from novel H1N1 it is likely that you have made some antibodies specific to that virus. But we would still advise getting vaccinated. There is a vaccine campaign in the fall for a couple of reasons.

One is we do not know how good immunity protects you - sorry, how good the immune response after you get infected protects you and how long it protects you.

We certainly see with seasonal flu people repeatedly getting flu strains that admittedly somewhat different from each other, but are somewhat - also somewhat similar.

It is possible this virus will change a bit as time goes forward and you will not have full protection. So I would encourage folks to, even those who have had a confirmed case of novel H1N1 (employ the) virus infection, and if we have a vaccine campaign against this virus in the fall that they should still get vaccinated because I do not think you can rely upon the fact that you were infected six months earlier or whatever it ends up being.

(Kimberly Neubauer): Well thank you very much and again thank you so much for your efforts.

Julia Smith-Easley: Thank you. Next call please.

Coordinator: I have a question from Stuart Brindley, IESO Canada. Your line is open.

Stuart Brindley: Thank you again for the brief today. My question was regarding the three scale severity question. So essentially I think you have answered it but I would like to emphasize this would be very, very helpful for us moving forward if industry is going to be nimble and flexible as you have indicated. The use of a severity type index would be very, very helpful. So thanks for that consideration.

Lisa Koonin: Surely. And just let me point you to the fact that CDC did publish a severity index in 2007 when we published our Community Mitigation Guide. That is called the Pandemic Severity Index. It is based on only one parameter though and that is case fatality ratio which is the likelihood of people dying from disease.

Our scale is similar to a hurricane scale and it ranges from category one to category five with category one being least severe and category five being most severe.

So at the current time, if you wanted to look at our scale, we would estimate that the pandemic situation is equivalent to a pandemic severity index of two and this is, as Doctor Fiori said, is most similar to the 1957 influenza pandemic.

And so if you want a parameter to plan for using a scale that CDC developed, you can find that. It is on www.pandemicflu.gov and that can be something that you use as part of your planning as well.

Julia Smith-Easley: Thank you. Our next question please.

Coordinator: Question from John Carvalho, Appollo Safety. Your line is open.

John Carvalho: Hi, hello. Thank you all for your hard work at CDC. You're outstanding American citizens as usual. I have a couple of questions but I think I am going to limit them to two.

Number 1, how do we get timely and accurate information when the updates for World Health and CDC seem to have gone to a weekly updated status? And I speak in specific regards to critical personnel that we may have in critical job functions and getting timely information to them from that regard.

And the second is, have you identified the strain as of yet that best fits what you are going to model any vaccine from?

Lisa Koonin: Thank you for your question.

So the first question is about timely and accurate information. And I will be honest with you. It is not going to come from the national level. It is only going to come from the local place where you are, where your business is.

John Carvalho: Okay.

Lisa Koonin: So that means creating a connection at the local level with local health departments, being in touch with streams of information that are coming from the community itself. And if you are in another country perhaps making connections with the U.S. Embassy in that country and having your people on the ground who are part of your intergovernmental relations part of your company tying into the government there. Those are probably the best ways to get information.

John Carvalho: Thank you for that.

Tony Fiori: For the second question, the strain for the vaccine. Yes. We are happy to say that we have several what we call seed strains. And that is strains that are composed of - that are vaccine strains - going to be used in the vaccine, that are composed of partly of a component of the actual virus that is circulating the novel H1N1 that is circulating now and also partly of viruses that are known to reduce the virulence of the virus and allow it to grow best in ways that manufacturers can use it to scale up and make a vaccine.

And then so of course most of the vaccine that gets distributed in the United States is a killed vaccine so the virulence part does not matter. But the live attenuated vaccine, the one that is given by the nasal route, also has developed strains that are composed of the key parts that stimulate an immune response combined with a piece of a virus that grows really well in their system for making a vaccine.

So the short answer is yes, the seed strains are at the manufacturer now and they are at the stage now of learning how to grow it up in larger scale and make prototype vaccines that can be used in experiments in animals and then also be given to people to see how well they stimulate an immune response.

John Carvalho: Great. Thank you for that. Can I have one quick follow up to that?

Lisa Koonin: I tell you what. If you do not mind, if you could hold on that. We want to let as many people ask questions as possible.

John Carvalho: Okay.

Lisa Koonin: Thank you sir.

John Carvalho: Okay.

Julia Smith-Easley: Next question please.

Coordinator: Question from (Kevin Cost), Public Service Enterprise. Your line is open.

(Kevin Cost): Yes. Thank you very much. My question has to do with the severity you mentioned before about that scale of one to five. It is kind of two part. How soon would the CDC know or be able to determine that severity and also is the susceptibility to treatment also included in that?

In other words, if there was a pandemic that was really severe, would you be able to identify that as one that would not - would be resistant to most treatment.

Lisa Koonin: Well thank you for your question. Let me walk you through some thinking about that. First of all, based on all of the scientific analyses that we are doing to date, our best estimate coincides with what the World Health Organization is saying which is this is about a moderate level severity.

So let me step you through a couple of things that are important. The number one strategy that every business needs to be prepared for is asking sick workers to stay home when they are sick. If we have a recurrence of the outbreak similar to what we had now, that will be our major strategy, remembering that our best protective strategy vaccine will not be available to us first thing in the fall. So that is going to be a very important thing.

Secondly, if we start to see it become more severe, we are going to take further action. That might mean closings or dismissing students from schools,

closing childcare and asking parents to keep kids at home and out of the community and crowded situations.

That - those recommendations would only be used if we see the level of severity would warrant it. And then going further, if we see increasing severity or if we see a debilitating spread of the illness throughout communities, we may actually recommend even further steps for social distancing, in other words, avoiding crowded events, canceling mass events, and taking steps to prevent people from clustering together in large groups.

This is the time that an employer needs to be ready to think about which employees can work from home, can you use staggered shifts at the workplace in order to reduce crowding, and other ways of keeping people apart and physically in space to reduce the sense of spread.

So right now we think it is a moderate level pandemic. The strategies that we will use in the fall will be asking (that) people to stay home. And if we do see extensive outbreaks, we may see schools dismissing children and childcare closings.

Julia Smith-Easley: Thank you. Can we have our next question please?

((Crosstalk))

Lisa Koonin: Hang on one second.

Tony Fiori: Yes.

Julia Smith-Easley: I am sorry. Go ahead Lisa.

Tony Fiori: There is just a little bit of an addendum to that. I think the caller had mentioned the idea that susceptibility to...

Woman: Thank you.

Tony Fiori: ...antivirals was part of the severity index. It is not actually. The good news right now is that the novel H1 is susceptible to the most commonly used antivirals worldwide - that is Oseltamivir, also known as Tamiflu and Zanamivir, also known as Relenza.

But most people, even in a pandemic, are not actually going to get antivirals. And so the susceptibility to antivirals is not part of the severity score.

Lisa Koonin: And the reason why most people are - will not be getting antivirals or do not get antivirals is because most people just recover just fine without them.

Julia Smith-Easley: Great. Thank you. Our next question please?

Coordinator: I have a question from (Barry Long), (Benz). Your line is open.

(Barry Long): I think you just answered my question. I was wondering with regard to the research, since viruses do mutate, are you working with - are you actually working with any companies that are doing anti viral candidates?

Tony Fiori: Yes we are. We and FDA and BARDA, which is the group that has made many of the investments in improving our capacity to stock antivirals at the federal level, the - you are right that we are very carefully and need to very carefully watch for development of anti viral assistance.

There are seasonal influenza viruses for example that are resistant to Oseltamivir. All the viruses are still resistant - they are still sensitive rather to Zanamivir. But there have been some that have been resistant to Oseltamivir. And we do have concerns that resistance can develop. That is what the viruses do, they change and they adapt.

(Barry Long): Right. (Great).

Tony Fiori: So we are working with manufacturers to help speed up candidates - anti viral candidates to come through the pipeline, and also working with FDA to look at what the options are for making available for emergency use or for really severely ill persons some of the antivirals that are in the late development stage.

We have not had to use those antivirals yet, but if we - if resistance develops and we have a lot of severe infections, we might have to attempt to do that.

(Barry Long): Would that be more of a stockpile type of a candidate? Is that what you are thinking?

Tony Fiori: We are thinking that it would be sort of like what clinicians do when they use invest - sorry, investigational new drug protocols where there is a drug is (not) licensed, but there is the need for it for some urgent reason to be used in a person who is quite ill.

And this - and if those got to the licensure stage, sure they might be candidates for stockpiling. But right now the stockpiling is still focused on Zanamivir and Oseltamivir. And again, they are still - the virus is circulating - the novel influenza virus is circulating remains susceptible to those drugs.

We really do look hard for this development of resistance. We test many hundreds of viruses from all over the world looking for it all the time.

(Barry Long): Thank you.

Julia Smith-Easley: Thanks. We have time for just a few more questions. Our next question please?

Coordinator: Question from Alan Snow, Boston Properties. Your line is open.

Alan Snow: Actually my question was answered earlier on about the levels of the mild, moderate and severe. So I am all set. Thank you.

Julia Smith-Easley: Great. Thank you. Our next question?

Coordinator: Question from (Gib Gleason), Lincoln Financial. Your line is open.

(Gib Gleason): Yes. My question goes to the comment that I heard earlier about the lengthy time that is required for the development of a vaccine. And I was wondering whether you would expect that to be shortened significantly given an article that I saw that cell-based production is being employed and is proving to be much faster than the egg-based production.

Tony Fiori: I know that BARDA is working with companies that have the capacity to do cell-based production. I think what we are stuck with here though is that those cell-based productions - the cell-based productions are not yet licensed by FDA.

In other words, if there was a sort of a preexisting pathway for licensure and then other vaccines have been licensed that way, other flu vaccines, I think it might be a little easier.

At this point, I do not know that - while we might have cell-based, cell culture based vaccines available in the near future, I do not think for this particular situation it is going to speed us up into September or August or something like that. But they might be the wave of the future. That is for sure.

Gib Gleason: Okay thank you. And thank you for all the information that you all provide.

Tony Fiori: Oh you are welcome.

Julia Smith-Easley: Thank you. We have come to the end of the time for our call today. I want to ask Dr Fiori or Lisa if you have any final comments before we end the call.

Lisa Koonin: Just a brief comment and that is we really appreciate the participation of the call today. I think Operator, how many people are on this call with us? I think it was over 500.

Coordinator: ...roughly about 680, 675.

Linda Koonin: Yes. That is a lot of businesses, a lot of entities that are really thinking about this and planning. One of the exhortations that I have for you is to think about all of the businesses that are in your critical supply chain and what is the level of their planning? Think about your vulnerabilities and pass down the message to think ahead and start planning down to those as well.

We will be continuing to produce guidance from CDC. We will continue to post guidance on the CDC H1N1 flu Web site. In particular, there is a special

page for businesses that you can go to and that has a lot of information in both English and Spanish that has resources and tools, that has travel information and information for the travel industry as well as posters and pieces of information that you can post around your worksite to encourage your employees to take those important measures like washing hands, covering their cough, staying home when they are sick.

And I just want to thank you for your participation today. If you need any further information, feel free to call on us. We will be happy to provide it to you. Thank you.

Julia Smith-Easley: Thank you. And as I mentioned earlier, a recording and a transcript of this call will be available on CDC's Web site early next week. The Web site address for this is www.cdc.gov/h1n1flu/business. And that site also houses the resources for businesses that Lisa Koonin just talked about.

If you have questions that we were not able to get to today, please call or email us at CDC INFO. That is 1-800-CDC-INFO or you can email cdcinfo@cdc.gov. And again, thanks to everyone for joining the call today.

Coordinator: That does conclude today's conference. Thank you for participating. You may disconnect at this time.

END