WHO Zika 2nd Emergency Committee Presser

08 March 2016

Speaker key

MV  Marsha Vanderford
MC  Dr Margaret Chan
DH  Dr David Heymann
BA  Bruce Aylward
JC  Jamiel Chad
HB  Helen Branswell
BO  Bianca Ortega
AG  Anne Gulland
TM  Tom Miles
JK  Jamie Keet
BS  Ben Simon
CH  Chair
GV  Gretchen Vogel - Science Magazine
ME  Marie Eisenben - NPR
Q  Questioner
CS  Catherine Saez - Intellectual Property Watch
JC  Jamil Chaudri
DM  Donald McNeill - New York Times

MV Welcome everyone on the phone and here in the room to the WHO press conference related to the second meeting of the International Health Regulations Emergency Committee on Zika virus and observed increase in neurological disorders and neonatal malformations. My name is Marsha Vanderford; I’m the Director of Communications at WHO. Our spokespersons this evening are WHO Director General, Dr Margaret Chan and the Chair of the Emergency Committee, Dr David Heymann, Bruce Aylward, the Acting Executive Director of the Office on Health Emergencies. We will open with statements from Dr Chan and Dr Heymann and then open the floor to questions from journalists, first in the room and then on the phone. Dr Chan, will you begin?

MC Thank you, Marsha. Good evening friends and colleagues from the media. I’m very happy to be joined by Dr David Heymann, the Chair of the Emergency Committee, and also
Dr Bruce Aylward. Since this emergency committee on Zika virus met on 1st February, substantial new clinical and epidemiological research has strengthened the association between Zika infection and the occurrence of fetal malformations and neurological disorders. In addition, the geographical spread of the disease is wider, the risk group is broader and the modes of transmission now include sexual intercourse as well as mosquito bites. Local transmission has now been reported in 31 countries and territories in Latin America and the Caribbean.

In this region, cases of dengue, which is carried by the same mosquito species as Zika, typically increase during the rainy season which lasts from January to May. We can expect to see more cases and further geographical spread. Imported cases of Zika have been reported from every region in the world. Concerning the link with fetal malformations, the virus has been detected in amniotic fluid. Evidence shows it can cross the placental barrier and infect the foetus. We can now conclude that Zika virus is neurotropic, preferentially affecting tissues in the brain and brain stem of the developing foetus. Zika has been detected in the blood, brain tissue and cerebrospinal fluid of foetuses following miscarriage, stillbirth or termination of pregnancy. Microcephaly is now only one of several documented birth abnormalities associated with Zika infection during pregnancy.

Grave outcomes include fetal death, placental insufficiency, fetal growth retardation and injury to the central nervous system. To date microcephaly has been documented in only two countries, French Polynesia and Brazil. However, intense surveillance for fetal abnormalities is currently underway in countries like Columbia where the outbreaks started later than in Brazil. Nine countries are now reporting an increased incidence Guillain-Barré syndrome or laboratory confirmation of a Zika virus infection among GBS cases.

A retrospective case-control study of GBS associated with Zika in French Polynesia recorded no deaths but the disease progressed rapidly and a large percentage of patients required admission to an intensive care unit for as long as 51 days. Growing evidence of a link with GBS expands the group at risk of complications well beyond women of child-bearing age. GBS has been detected in children and adolescents but is more common in older adults and slightly more common in men. The anticipated need for expanded intensive care adds a further burden on health systems.

Reports and investigations from several countries strongly suggest that sexual transmission of the virus is more common than previously assumed. All of this news is alarming. Women who are pregnant in infected countries or travel to these countries are understandably deeply worried. I convened this second meeting of the Emergency Committee to gather expert advice on the strength and significance of these new research results. We also asked the experts whether or not the findings warrant changes in the WHO recommendations to countries. The committee underscored the increasing strength of the evidence showing a likely association between Zika infection and fetal malformations and neurological disorders. At the same time the experts pin-pointed the types of studies needed to establish a causal relationship but stressed their view that strong public health actions should not wait for definitive scientific proof.

I now would like to invite Dr David Heymann, the Chair of the Emergency Committee, to brief you on specific recommendations. Thank you.
Thanks very much, Margaret. I think it’s useful to think back to about five weeks ago when we first recommended a public health emergency of international concern to the Director General. At that time there was very confused information coming out but it was clear that there were some clusters of microcephaly and there was also other neurological disorders including Guillain-Barré syndrome occurring.

So the concern was that these were related in some way to the Zika outbreaks which were going on in these countries, which is quite interesting because as you know, Zika was found in 1947 and it was never known to be neuropathologic, in other words cause any disorders. Until just recently it was thought that it might be associated with these clusters of microcephaly. So it went throughout Africa and Asia and then all of a sudden ended up in the Pacific and then in Latin America associated with microcephaly.

So the public health emergency set out two recommendations for the public health emergency. One was to increase surveillance and standardize surveillance of microcephaly, Guillain-Barré syndrome and other disorders, and the other was to increase research that was looking to see whether there was a cause-effect relationship between Zika and the microcephaly and other neurological disorders. At the same time there were a whole series of other recommendations made, that the committee called precautionary, to make sure that if Zika was the cause that it would be taken care of in vector control activities, it would be known where it was and a whole series of other activities including some activities to look into the possibility of a vaccine.

That public health emergency of international concern was felt to provide to WHO the empowerment they needed to move ahead rapidly in implementing these measures, and the first thing that we discovered when we began to receive all the papers in preparation for this emergency committee was that indeed WHO had reacted very rapidly as had PAHO in the Americas and this reaction has actually resulted in guidelines on many different subjects, including sexual transmission, including surveillance. In fact since the 12th February there have been ten specific guidelines developed by WHO providing guidance to countries on how they do surveillance, how they do vector control, how they do a whole series of things in preventing infection with Zika.

But in addition there has been an increased emphasis on coordination of the research activities going on in the world by WHO. In fact the Director General, as you know, has just recently travelled to Latin America to observe what’s going on there. And these activities have indeed been stepped up and are providing evidence. But that evidence is not yet in a form that can lead to a conclusion that there’s a cause-effect relationship between Zika and microcephaly and Guillain-Barré. But there is so much evidence coming in now and this evidence is all pointing in the same direction. So the committee felt that yes, it’s likely that there is an association but that there still needs to be more information before a definite cause-effect can be ascertained.

This was done in the committee meeting in a very interesting way by first of all having reports from the countries where these outbreaks of Zika are occurring and where they’re identifying clusters of microcephaly. And what we see is that, as the Director General said, as outbreaks occur countries then begin to see things such as Guillain-Barré syndrome and microcephaly. So this is very important. Remember, it’s a timeline. Pregnancy is nine months, infection during pregnancy leads to a birth defect, if it does, after that child is born. So it’s a time sequence. So what we see in Brazil now is what could occur in Columbia and
other countries in the next few months and it’s very alarming. So that’s why we recommended that there be more observation and more evidence collected from these countries while still implementing all these recommendations to stop the transmission of Zika if possible or at least to curtail it.

So it was a very interesting meeting. As I said, the countries presented first and then we asked the experts, and there were seven different experts online, what their views were. And then finally we polled the committee on several different issues and came out with the recommendations and the paper which you have in front of you. So just to reassure you, I think the public health emergency of international concern declaration by the Director General has really crystallised and brought the world together, working as they should be working in a coordinated manner on the issues related to microcephaly, other neurological defects and Zika virus.

So we’re very pleased, the committee was actually extremely pleased with the progress that’s been made and we’ll wait until they’re called again by the Director General to answer the next questions should there be any. So thank you all very much and thank you to the Director General.

MC Thank you, David, for chairing a top-notch group of experts and advisers and giving us very important advice to be disseminated to countries, and we have shared with you, friends of the media, our report from the Emergency Committee. So we would be happy to answer any questions that you may have.

MV Thank you, Dr Chan, thank you Dr Heymann, we will open the floor to questions. We will take from the room first and then go to the bridge line. As direction for those who are calling in by telephone, if you have a question to ask during the Q&A session you can type 01 on your phone and that will put you in the queue. We will take as many questions as we can and apologise in advance to those that we cannot get to. So we will start first with Jamiel Chad. Go ahead please.

JC Thank you. Jamiel Chad from Brazil. Dr Heymann, first on the travel measures, you do have new, let’s say, advice asking pregnant women that should be advised not to travel to areas. In the case of Brazil does that mean the whole country, does that mean Pernambuco? What does that mean in regards to a country the size of Brazil? Are you recommending basically pregnant women not go to Brazil or not go to places where these outbreaks are happening?

And to Madam Chan, you’ve been to Brazil very recently, the government has announced a number of things, however not a single cent has arrived to put into institutes so far for the development of the vaccine or for the research itself. So how much does it matter the fact that you do, not you but governments do announce plans but they don’t basically finance them? Thank you.

DH Thank you. The recommendation is areas of ongoing Zika virus outbreaks and so the onus is on countries to identify and report where they have outbreaks and where they don’t have outbreaks. Then it will be up to pregnant women or women who are planning to conceive to decide based on the information given them, by Brazil in this instance, and they must make their own decision as to whether or not to travel. Remember, these are only recommendations. Brazil, if they can certify that an area is free of Zika outbreaks and then
provide this information to women travelling to Brazil, they can make their own decision. But it’s not country-wide; it says clearly areas of ongoing transmission, not countries. So the onus is on countries to show where those areas are and where they’re not.

MC Thank you for that question. Yes indeed, I visited Brazil together with Dr Carissa Etienne and Bruce Aylward. We were very impressed with the political commitment, the technical competencies as well as the, you know, compassion of the doctors and nurses who take care of pregnant mothers as well as infants with microcephaly. Yes, we also heard from the government that there is a range of arrangements with the US government, including CDC, NIH and also with UK institutes to develop diagnostics, to develop vaccines and also to conduct case control studies and other studies to establish evidence for the causal relationship. I cannot answer the question why money is not there yet and I’m sure the government has given its commitment and I hope the funds will be flowing soon.

MV Thank you. We will now go to a question from the bridge line. Our first person in the queue is Helen Branswell from STAT News. Go ahead, Helen.

HB Hi, thanks very much for taking my question. I wanted to ask about the recommendation... Can you hear me?

MC Yes.

HB I wanted to ask about the recommendation, about using the IHR to encourage countries to perform vector control. Could Dr Heymann perhaps explain more how the IHR could be worked in that way? And I have a follow-up question if I could please.

DH Thank you, Helen. The International Health Regulations in annex five talks about vector control as it pertains to the international spread of disease. Now remember, the International Health Regulations are recommendations to prevent or to minimise the impact from the international spread of disease. Those vector control activities that could be recommended under the IHR include intensified vector control in countries to prevent the insects from spreading out of those countries and also some standing recommendations that could be used, and they also talk about airports and about the importance of keeping the airport areas dis-insected, clean from insects and also clean from breeding sites. So those are the measures that could be placed under the International Health Regulations. There is a standing recommendation of vector control as it pertains to international spread of mosquitoes.

The committee also recommended that the Director General consider some measures which might better engage countries in doing their own vector control activities and that includes such things as considering whether or not the World Health Assembly can play any role in that.

HB Thank you. May I ask a follow-up?

MV Yes, go ahead.

HB Thank you very much. During the meeting, when the experts were reporting on what’s been learned so far about Zika, did anybody present any evidence on whether or not the two different strains, the Asian and the African strain are cross protected?
DH No one asked that question but there were questions about the difference in the viruses and there were also questions about which specific viruses are causing current or recent outbreaks. And the genetic information was not available at this meeting and it certainly is available to WHO and I know they’ve been looking at it. But that was not discussed in this meeting.

MC But Helen, just to supplement that question of Dr David Heymann, we need to look at the outbreak now at Cape Verde and a mission is on the way to look at and support the government, including getting specimens and doing the sequencing so that the experts can compare the Asian vis-a-vis the African strain and see whether or not we could get some clue from that. Thank you.

MV Thank you. We’ll take another question from the floor please.

BO This is Bianca Ortega [?] from Global News Brazil. WHO have advises pregnant women to not travel to affected areas but what can WHO say to Brazilian women that are planning to get pregnant, of course in Brazil?

MC I think based on the strengthening of the evidence on the association between Zika virus infection during pregnancy, it is important that every country, including Brazil in this case or especially Brazil in this case reporting so many infections, that women should be provided with all the information to empower them to make the decision whether they want to get pregnant or whether they want to defer pregnancy. And if indeed they are already pregnant, there are other means to protect themselves from mosquito bites. So these are already put up on WHO’s website on the guidance, on management of pregnancy. Thank you.

MV Thank you. Our next question is from the bridge line. Ann Gulland, please go ahead.

AG Hello. Thanks for taking my question. It’s Anne Gulland from the BMJ here. You mentioned about the other, these birth defects and not just microcephaly and I just wondered whether there are any numbers on that at all, how many of these other defects that you’ve seen.

DH What was presented were clusters of Guillain-Barré syndrome that were occurring. Retrospectively there was an identification of a cluster in French Polynesia and there were also clusters in some of the other countries, but no specific numbers were given.

MV Thank you. Another question from the room please. Yes please, Tom Miles from Reuters.

TM I just wanted to go back to the very basic question of how this disease spreads and what we know about it because you were talking a lot about what we know about the link with microcephaly, but just to be clear about the Zika virus and the Aedes mosquito, I recently read that there’s never once been a Zika infected mosquito found in the wild in Brazil. If that’s right, can we be absolutely sure that the Aedes is the species, because you mentioned in the recommendations that you want to look at more species? How many potential species are we looking at? One of the callers mentioned strains; is it just two strains,
are we sure that there are two strains and no more? Just how much do we know about the very basics of this? Thanks.

MC  Tom, you ask some very good questions and I will give you some answers and then of course I’d like to invite Bruce to give more details. Yes, the transmission of this disease is primarily by the bite of infected mosquitoes and then of course now we are beginning to collect evidence of cases, reported cases of sexual transmission from returning travellers, so from male to their female partners or spouses. So you talk about is Aedes the only one? Well, I can tell you the scientists of the world are beginning to ask questions, could it be other mosquito species that are causing this? At this point in time these are scientific gaps that we need to continue to find evidence. We don’t have definitive answers yet.

Bruce, do you want to supplement?

BA  I think what you say is correct, DG. The virus is definitely transmitted by the Aedes aegypti. It’s also found associated with other Aedes mosquitoes. The question is what role, if any, do they play in the transmission of the disease and that’s not clear, nor whether other species are actually involved. With respect to the strains, two strains of the virus that we know of today, the Africa strain, the Asian strain.

MV  Thank you. Our next question is from Mandy Aroman [?] from CNN on the bridge line please. Mandy, are you still on the line? While we’re waiting to see if Mandy will join us, is there another question here in the room? Jamie, please go ahead.

JK  Hi, Jamie Keet from Associated Press. I hoped you could maybe elaborate a little bit more on the sexual transmission if possible, particularly how much more common do you think that sexual transmission is, what percentage of cases could it account for? And then also if you could also answer when you think that we’ll have definitive proof that Zika causes these problems, would you still expect it to be in April or are you waiting for a conclusion of other case studies?

DH  So the first question, what was it again, the first question?

MC  Sexual transmission.

DH  Sexual transmission is now known to occur. In six or eight different instances there has been sexual transmission. It’s clearly one of the questions that the committee asks in that the committee has asked for more information about and that’s why there must be an increase in research in that area as well.

Regarding the second question which was on definitive proof, we asked all the different advisers, the seven different advisers today, what they would consider as definitive proof. And they couldn’t really give any specific criteria which is what we were looking for but what they did say was that there needed to be consistency in different studies over time and that there’s only a few studies now but that other studies must be done which are repeated which are consistent with what’s gone on now in the case control area and in other areas. So that was one of the answers we got.

And the other answers that we got were answers looking at things like neuropathology, looking to see the extent of neuropathology and how closely that can be linked to virus and a
whole series of other areas in that study of neuropathology. And also looking at many
different other things, including the cohort studies which are going on now and which must
continue. So a recommendation to countries where there are recent outbreaks is collect a
cohort of all your pregnant women and make sure that you study them very carefully so that
this can add to the global database and also help in national planning.

JK     Sorry, a follow up on the timeframe for possible...

MC     I will answer that question. Yes, the Emergency Committee under the International
Health Regulation, the recommendations last for three months. The Director General, within
the three months, must organise another Emergency Committee to seek the advice of the
experts. And as you well know, this one I organised it in five weeks’ time since 1st February
because of the building up of evidence from different studies. And as Dr David Heymann
said, 1st February when we called a PHEIC, it sort of crystallised the focus of attention on this
important issue and brought the world together working in a collaborative manner, sharing of
information, sharing of specimens and also studies to get information as fast as possible.
Thank you.

MV     Thank you. We will go back to the phone line now and Ben Simon from AFP is the
next person with a question.

BS     Can you hear me?

MV     Yes, we can hear you.

BS     I just wanted to ask about something in Dr Chan’s statement, the phrase which we
now conclude that Zika virus is neurotropic, the way that was phrased made it seem like it’s a
conclusion that WHO has just reached following the latest research. Am I wrong in that? My
understanding is that Zika has been understood to be neurotropic for some time. Maybe you
can provide some clarification.

MC     Thank you very much, Ben, and indeed over the last five weeks since 1st February we
are getting more and more evidence that the virus found in all these miscarriages, stillbirths
and also, you know, definitely the virus attacked the nervous system and there were studies
that have demonstrated that no other organs were, sort of, attacked by the virus so, I mean the
views of many experts is that this virus is neurotropic. And of course, we are very careful and
cautious to say that more work needs to be done, and you have heard just from Dr David
Heymann. And one of the important questions coming from the experts is a request to do
more on neuropathology studies, and we need to continue with that. Thank you.

CH     Thank you. Our next question, please. Would you introduce yourself?

GV     Gretchen Vogel from Science Magazine. You said you heard reports from the various
countries that are affected. What did you hear from Colombia? There have been reports that
there are Zika-associated cases microcephaly there. But I haven't heard you say that here
tonight. What's going on there?

DH     Well, the information that's provided to us is provided in confidence in those
meetings, and so I'm not certain whether it's information that's in the public domain or not,
but I would turn to the Director General to ask whether it is.
Yes, indeed. The Minister of Health from Colombia was invited to give their work, to report on their work, and they have given a very detailed presentation on the number of cases on the epi curve of the different... like dengue, Zika and also Chikungunya. And it's not so easy to distinguish, because they all happen at around the same time, and also, they are, you know, in terms of the testing, their cross-reactivity. But the government is very careful and they are doing all they can to work with the US CDC and other colleagues to decipher and get to the bottom of the issues.

So at this point in time, yes, we also saw an article reporting on some cases, and we need to verify those data with the government. Thank you.

Thank you. Our next question is on the line. We don't have a last name but we know the person is from NPR in Washington. Would you please introduce yourself, and your question, please?

ME Hi, yes, this is Marie Eisenben with National Public Radio in DC. I have two questions, actually. Am I understanding correctly that the advisory for pregnant women has actually been ratcheted up a notch? It's basically, before, there was not this advice not to travel to areas, it was simply to use precautions for pregnant women traveling to those areas, and now they're being advised not to travel. And is this, you know, in retrospect, was it a mistake not to put out this advisory from the beginning, starting February 1st?

DH I can only speak to the first meeting and this meeting. At the first meeting, we did make a recommendation for pregnant women to be informed and to make their own decision, based on what they understood. And we requested that governments empower them to make that decision. I think the evidence, as you know, is increasing that there is infection of women who travel. And therefore, because the increase in evidence is pointing towards a more likely... it's likely that there is a causative relationship between Zika and microcephaly and other disorders, we felt that we needed to make this recommendation, especially so that there could be a benchmark, which countries could then use, as they make a decision.

But again, I want to stress that this is a country responsibility to determine where there are ongoing outbreaks and where there are not, and persons then travelling to those countries must make their decision based on what countries are reporting.

Thank you. Our next question across the table, please.

A question to Dr Chan. Do you think that the Zika virus has the potential ability to spread like dengue? And the other question is, for a country like China, because the spring is coming and the country has the imported cases, what kind of barriers should this country take to prevent the loco transmission of the virus? Thank you.
Thank you for that question. As you well know, the Aedes mosquito is responsible for transmitting dengue, chikungunya and Zika. So the question is, is there any potential for that to spread like dengue? We cannot dismiss that. And the second question you ask is about imported cases to China. For your information, after China reported to WHO on their first imported case, I was talking to the Minister of Health, Minister Li Bin, and she has informed me the plan of action that the government has put in place to make sure that it will not have further transmission. But you must understand, you know China very well, that the geographical distribution of the Aedes is primarily in the southern part of China. So they are well aware that spring is coming and rain is coming, and they have strengthened vector control. And of course now it's still pretty cold in the northern part of China. But I think all the more precaution is important and I am very satisfied with the very strong plan of action by the Ministry of Health.

00:35:54

CH Thank you. Our next question is from the bridge line. Catherine Vianken [?], please go ahead. Catherine, are you with us?

CS Are you talking to me?

CH Yes, please go ahead with your question.

CS I'm sorry, I am Catherine Saez from Intellectual Property Watch. Good evening and thank you for taking my question. On the recommendation on research and other developments, there is a recommendation to intensify research and development for a Zika virus vaccine and therapeutic. Could you explain who is expecting to undertake research, and with which financing? And is there any issue about virus sharing from infected countries with research centres or industry?

00:36:48

DH I can speak on the recommendation. The recommendation is that there'll be all-out efforts to begin to find interested companies in doing the research to develop a new vaccine and providing to them what's necessary. But that must be done today with many different understandings about sharing of virus specimens, including the Convention and Biological Diversities Nagoya Protocol, and also the framework here at WHO for sharing of benefits. So there will need to be both discussions with industry about vaccines, and also about the sharing of those viruses with the countries that have provided them, making sure that those benefits are made available to people to need them.

So it's a very long-term goal, but I think we can be pleased that WHO has been able to at least strike an agreement with sharing of influenza viruses in the past, and that this serves as a format on how to move ahead. I'm sure the Director General would say a few words as well.

MC Thank you, Dr Heymann. Indeed, on the vaccine, let me share with you. On 7th to 9th, which is actually yesterday, today and tomorrow, the World Health Organisation is organising a research R&D meeting to do a landscaping of the potential vaccines, diagnostics and other therapeutics. So work is ongoing. But having said that, I can share with you also, during my visit to Brazil, it is very clear to me that the government is working very closely with NIH in USA, working with University of Texas, and within Brazil they have very good
institutions like Butantan, as well as Bellman Guinea [...]. And these are already in different stages of development of a vaccine, including the use of a dengue vaccine to help Zika. So a lot of work is ongoing, but it is important for me to tell you that the estimations of the experts is that the first available vaccine for clinical trial would be in terms of months, or maybe in the next year or two. So we don't expect to see an immediate solution from the vaccine right away.

Now, on the financing, of course, you know, it is a collaboration between government and industry. I'm sure they will look at the financing. But I don't have that information.

00:39:47

On the last point about virus sharing, I think the Brazilian Government is very prepared to work with the US entities and governments in sharing samples so that they can do the diagnostic and the vaccine. And President Dilma Rousseff committed to work through WHO and share specimens with other countries as well. But it is important, to come back to the point that Dr David Heymann made. In sharing the specimens, we call it, you know, yukofoteng [...] sharing of the specimens, and also any benefit that derive from that sharing is important. WHO has a protocol called PIP framework, the Pandemic Influenza framework for sharing of benefits and specimens.

There is another additional request I put. It is important that the scientists who are working together should do joint authorship, should they have any articles to be put to scientific journal. And it is very important for scientists in middle income and lower income countries. They also would like to learn and to excel over time, so the sharing of virus is not just a virus but also linked to the sharing of benefits as well as doing joint authorship for scientific journals.

That discussion was very productive and very helpful. Thank you.

00:41:30

CH Thank you. We will take two more questions. One from the room, from Jamil Chaudri and then from the phone, from Donald McNeil. Please go ahead, Jamil.

JC Madame Chan, first, on the appeal that you made a couple of… the financial appeal that you've done, how much funded is that so far? And to Dr Heymann or to Bruce, is this the first time ever WHO recommends pregnant women not to travel to a specific area? Has this been done before, and when was it? Thank you.

MC On the first question, yes, indeed, WHO has put out the Strategic Response Framework within ten days of this event, and we brought together a coordinator with our UN Agency and other international NGOs, who would be helping countries to either do community engagement, risk communication, vector control, and the measures. So the three lines of attack are, surveillance, response, and research.

That framework asks for 56 million; 25 for WHO and PAHO, and the balance is for all other UN agencies and INGO. So far, WHO has received about $3 million. So we would like to take this opportunity to encourage countries to support this very important work by PAHO, WHO and also by other UN agencies and international community. It is easy for us to say
that we will do our utmost, and we accept, you know, additional requests for work, but, you know, financing of the work is also important.

00:43:34

You mentioned is this the first time WHO provides advice to pregnant women. I mean, it is important, whatever advice we give to countries must be based on the risk and the benefits, and also, you know, clearly, Zika infection during pregnancy will produce very bad outcomes. And so it is important that we recommend strong public health measures, and not to wait until we have the definitive proof. Thank you.

CH Our last question is from Donald McNeill from the New York Times. Please go ahead.

DM WHO is recommending now that pregnant women not travel to Zika countries. Why is it not recommending that women in those countries not get pregnant? That seems to be the next logical step, and I don't understand why you're not taking it.

DH Don, I can speak for the international health regulations. They don't make national recommendations. They make recommendations for travelling internationally, and so that was within our mandate and that's the recommendation that we've made - that pregnant women should not travel to... it's not countries, it's to areas where there are ongoing virus outbreaks.

00:44:53

MC I think, Don, you ask a very important question. Yes, at the global level, under the International Health Regulation, we do provide global recommendations. But, of course, nationally, I mean, every country, based on their culture, based on a lot of factors for consideration, would fine tune the recommendation. But it makes a lot of sense to me. It makes a lot of sense to me that women, not only should we give them the information, we should make sure that they have access to means that can help them to prevent pregnancy, if this is their decision. Or to delay pregnancy. So, I mean, access to voluntary contraception is one thing that they can consider. Of course, you know, we respect the law of the land and how this would apply. That's why the national adaptation of global recommendation is important. Thank you.

CH Thank you. Thank you to everyone for your attendance by phone and in the room. Just a reminder, an audio file of this press conference will be available shortly on the WHO Media website, and a transcription will be available later. Thank you all very much.