



World Health Organization

Emergencies Coronavirus EC Meeting

22 January 2020

Speaker key:

TA	Tarik Jasarevic
DH	Professor Didier Houssin
TAG	Dr Tedros Adhanom Ghebreyesus
MR	Dr Michael Ryan
SB	Dr Sylvie Briand
MVK	Dr Maria van Kerkhove
MC	Marco Clementi
SN	Stephanie Nebehay
HB	Helen Branswell
JC	Jon Cohen
JG	Jason Gallagher
DG	Denise Grady
GS	Gabriella Sotomajor
BU	Buddy
GE	Gerard
BM	Betsy McKay
JZ	John Zarocostas
UF	Unidentified Female
UM	Unidentified Male

TA Good evening again to everyone and thank you very much for your patience, for bearing with us for last hour and a half, almost two hours. Thanks also to all journalists who are online, I understand we have more than 150 journalists who are watching us and listening to us right now either by dialling in or by watching us on WHO Twitter and WHO Facebook account.

We are late, so I will just keep it short. For those online who would like to ask questions, please dial 01 on your keypad and you will be put in the queue. As we have announced earlier, and you have the name plates here with us, we have Dr Tedros, WHO Director-General, Professor Didier Houssin who is Chair of the Emergency Committee. We have Dr Michael Ryan, and we have Dr Maria van Kerkhove from Department of Diseases and Zoonosis Unit. Mike Ryan is the Head of Emergencies at WHO.

You know today was the first meeting of the Emergency Committee on the International Health Regulations on novel coronavirus, and I will give the floor immediately to Dr Tedros.

TAG Thank you. Thank you, Tarik. And good evening to everyone in the room and everyone online. We're really sorry that we're late, but thank you all for your patience. As you know this is an evolving and complex situation, and I would like to thank Dr Houssin for his leadership of the Emergency Committee and all members of the committee; the advisers, and those who made presentations earlier today during the deliberation.

I was very impressed by the detail and depth of China's presentation. I also appreciate the cooperation of China's Minister of Health who I have spoken with directly during the last few days and weeks. His leadership and the intervention of President Xi and Premier Li have been invaluable, and I know you're following the actions they are taking -- all the measures they have taken to respond to the outbreak.

Today there was an excellent discussion during committee meeting, but it was also clear that to proceed we need more information. For that reason I have decided to ask the Emergency Committee to meet again tomorrow to continue their discussion. And the chair, Dr Houssin, has agreed with that request. The decision about whether or not to declare a public health emergency of international concern is one I take extremely seriously, and one I'm only prepared to make with appropriate consideration of all the evidence.

Our team is on the ground in China as we speak, working with local experts and officials to investigate the outbreak and get more information. We will have much more to say tomorrow, and thank you very much, and we'll be glad to answer any questions you have. But before that I will give a chance to the chair, Dr Houssin, to say a few words, and after that, Mike, to say on the actions we have recommended. Thank you.

DH Thank you very much, Dr Tedros, and thank you for you all to be present this evening. It's true that the committee met during several hours today. We heard a very interesting report from the republic of China about the situation in China. We also heard reports about the situation in Japan, in Thailand, and in Korea.

Following this we had also the analysis of the situation made by WHO Secretariat, and then we entered into a discussion about important advice to provide to the DG of WHO. That is, is the situation corresponding to a public health emergency of international concern, and what advice should be given to the DG.

The views of the member of the committee considering the information provided was split about the opportunity to advise the creation, the decision, of a PHEIC. But we formulated a series of recommendations concerning the improvement of containment and mitigation measures which are already important in China, and also about the measure that should be taken by member states.

One of these measures is the improvement of sharing of information and cooperation between member states in such a situation. One of our advices was to suggest to the DG that the Emergency Committee should be reconvened very early, if necessary. And, in fact, the situation is evolving rapidly, as said Dr Tedros. And for this reason we, of course, agree completely with his decision to reconvene the committee tomorrow, considering the evolution of this situation and the measures taken noticeably in China. Thank you.

MR Good evening, everyone. And let me again thank our member states for their excellent presentations today at the Emergency Committee. And also for their actions already taken in the face of this evolving epidemic. Just to briefly summarise to you that WHO has been on full activation of our incident management system since the last day of 2019, across the three levels of our organisation.

We've been coordinating a series of global expert networks and partnerships that have dealt with laboratory diagnostic assay development, infection prevention and control, clinical management, standardised data collection, mathematical modelling research and development, and many other pillars of the response.

We've been providing technical support to member states, both member states affected and unaffected states. We've been sharing critical updates with member states through our EIS platform with member states, with disease outbreak news, and through the WHO website. We have released a comprehensive technical package of interim guidance for 2019 nCoV. These materials are online, reviewed daily, and updated regularly. We have updated travel advice for international travel and health in relation to the outbreak.

In addition we have been working very, very closely with global partners and the global coordination mechanism for research and development for epidemic diseases as part of the research and development blueprint, working with institutions such as CEPI and others on advancing medical interventions, diagnostics, therapeutics and vaccines, and at the moment the landscape's analysis for those have been completed.

We're working on the sample of virus sharing. We're working on developing and disseminating clinical trial protocols, and many other issues related to the carrying out of structured evidence-based research in the field as needed. The priorities right now, notwithstanding the deliberations of the committee, the member states affected have implemented a number of control measures.

These have focused, and WHO agrees, the primary issue is to limit human-to-human transmission, to reduce secondary infections, especially amongst close contact and particularly in healthcare environments. We need to prevent transmission through amplification events and super-spreading events, and obviously prevent further international spread.

Reducing zoonotic transmission, or transmission from animals to humans, is important, and identifying the animal source or sources, and limiting exposure to those sources is exceptionally important. We need all member states to focus on early identification and isolation of suspect cases and probable and confirmed cases, and we are working closely to equip countries to be able to detect and isolate and provided optimised standards of care.

There are many unknowns to address in this event, including clinical severity and the true extent and nature of disease transmission. Communicating critical risk and event information to all communities is the responsibility of everybody. Our member states, the media, and WHO. And we at this time must particularly counter misinformation that may affect people's behaviour. And lastly, minimising social and economic impact is important at this time.

So the organisation is fully activated at all levels, with our partners, in response to this event, and we await the further deliberations tomorrow of the committee with, as I say, we await those deliberations.

TA Thank you very much. Before we've got questions, I have to apologise to Dr Sylvie Briand who is sitting next to Dr Mike Ryan. Dr Briand is our Director of Global Infectious Hazard and Preparedness, and she together with Maria may answer some of your questions. So we will start with the questions from the room. For those online, I will just repeat that if you have a question, please type 01 on your keypad and you will be put in line.

We will take questions, if our speakers agree, one by one, and I will ask you to introduce yourself first, and the outlet you are working with. So we will start with, I think, colleague from China.

UF I'm a journalist from CCTV. My question is to your excellency, Mr Director-General, Dr Tedros, about WHO's evaluation of the measurements by the Chinese government in response to the epidemic after the outbreak of 2019 novel coronavirus outbreak. How do you comment on the liaison and reporting between the Chinese government and the relevant departments with WHO? With your expert group already in China, what evaluation does WHO have on Chinese medical institutions regarding outbreak control and patient treatments? Thank you.

TAG Yes, thank you. Of course this is novel coronavirus, and it's a new discovery. So identifying the pathogen was done swiftly, and it shows the capacity that China has now. And the sequencing was done quickly. But more importantly, it was shared immediately. And that's why Korea, Japan, Thailand, were able to diagnose the new coronavirus quickly. In addition to that, actions taken immediately, especially on the Wuhan seafood market, and followed by other actions, was very commendable.

And the involvement of the leadership, starting from the president himself who gave really clear guidance, the premier, and the minister, was also very impressive. And different actually from previous actions. You see the capacity and you see the political commitment. And that's continuing, and we appreciate that. But at the same time, although there is good capacity in China, they have also invited our experts. So our experts are now on the ground, as we speak with Chinese experts assessing the situation. And that's why we're saying we will have more information, and we will reconvene tomorrow.

So that's what we see from WHO's side, and we really encourage China to continue that way because not only that will help China to clean the outbreak as soon as possible, but also to help in preventing it from spreading internationally.

TA Thank you very much. Please, introduce yourself, Marco.

MC My name is Marco Clementi of RAI Italian TV. This is my question. Which is the level beyond which a local emergency becomes an international emergency according to WHO? That's the question.

TA Would you like to take, or...?

MR Well, I'll point you to the criteria in the IHR. And the International Health Regulations is a very specific formulation related to the international aspects of the risk. But there are three essential criteria about the nature of being unusual expected, whether the disease has demonstrated transmission beyond borders. And in that it's not just necessarily the movement of a case somewhere else, it may involve a determination of whether local transmission has occurred when that case arrives, and that's a nuanced and very important distinction to make. And also whether there has been interference, or likely interference, with travel and trade.

So the IHR as an instrument is specifically designed to ensure the appropriate public health actions are taken to contain the disease without unnecessary interference with travel and trade. There's a balance here to be struck, and that balance is something that the Emergency Committee try to address in their advice to the Director-General. But that does not mean the public health action starts with the declaration of a PHEIC. Public health action is already underway. Comprehensive international public health action in support of the affected states is already underway.

What deliberation of a PHEIC can allow is the issuance of temporary recommendations that are more binding in terms of international law on those member states. So one would ask the question, are our member states implementing all those measures at the moment that we would consider necessary to contain this disease? And then beyond that are there further temporary recommendations that will be needed? So in that sense it should be a reinforcement of existing action, and that's why I took the time to explain the actions that are being taken. And in that sense we need to separate that PHEIC is a very particular concept in this regard.

TA Thank you very much. Stephanie, please?

SN There we go. Sorry. Reuters, Stephanie Nebehay. Could you tell us whether the panel, I don't know whether it would be appropriate for the chairman or Mike, tell us about the discussion of evidence that you're seeing about human-to-human transmission, and what evidence you might have been presented with about any mutation in the virus which possibly has made it more transmissible, or any super-spreading events that you may have seen? Can you give us an idea of what your understanding is at the moment?

MR I think we are in agreement with Chinese authorities who've been very clear and transparent that there is evidence of human-to-human transmission. And the evidence points to human-to-human transmission in the context of close contact with a suspect case or within a healthcare environment. So the virus clearly... And this is not unusual. Previous SARS epidemics, and MERS epidemics, have demonstrated human-to-human transmission. The current Ebola epidemic in Congo has gone through multiple generations of human-to-human transmission.

It is not the existence of human-to-human transmission that purely determines the impact of the event. What matters is the route of that transmission and whether we've identified those routes adequately, and then give the proper advice to break the chains of transmission, and whether we can track those chains of transmission in an appropriate way. And we're back to the simple actions of public health. Early identification of cases, identification of high risk contacts, following those contacts, and ensuring that if they develop illness that they're isolated quickly.

So those are the principles. So we may go through generations of human-to-human transmission. If the route of transmission is still due to close personal contact and droplet infection then the disease, or the virus, is essentially containable. The issues that arise are the unknowns as to whether or not there are other routes of transmission occurring, and at this time it is not possible to determine that absolutely.

It would appear that the main routes of transmission are along the expected routes of transmission for coronaviruses, and that is part of the extension of the deliberation of the committee, is to further consider these matters.

TA Thank you very much. If other speakers... Does anyone want to add something to this? If not we will give a chance to some of the journalists who are listening to us online and who dialled in. We will start with Helen Branswell, if Helen can hear us. Helen, do you hear us well?

HB Yes, thanks very much for taking my question. I was hoping that perhaps Mike could expand a little bit further on the transmission issue. Have you a clear indication that this is sort of stuttering transmission among people, or are you seeing any sort of third/fourth generation cases among people? And I would also be interested in WHO's reaction to the news that Wuhan is effectively being quarantined. This is a very severe action and I would like your thoughts, please.

TA Thank you very much. Helen, we didn't hear you very well but I understand there was a question about a transmission and possible generations of transmission. The second part of your question, please.

HB The second part was I would like WHO's comment on the decision by authorities in China to effectively seal off Wuhan. It's a very severe measure and I'm wondering what WHO thinks about that.

TA Thank you, Helen. We understand first question's about transmission, and second question is about measures put in place by Wuhan City. Who would like to take...?

MR I can start and hand over to Sylvie or Maria. My understanding is that we have not at this point confirmed third/fourth generation transmission, but our colleagues can speak to that. And in reference to a previous question, Stephanie's previous question on the genetic diversity, the virus is showing stability and not showing a divergence or any unusual activity. All viruses change. Every time someone is infected it's tiny differences in the virus, but we're not seeing huge changes in the viral genomic sequence in that regard. So maybe I could pass to Maria or Sylvie to just maybe address the issue of generational transmission?

MVK So thanks for that question with regards to human to human transmission. What we're very thankful to the colleagues for sharing information about the situations in their country. What our colleagues have shared with us is, as Mike has described, some human-to-human transmission amongst close contacts. And what investigations are underway to fully determine the extent of this. So at the present time we don't know the full extent of human-to-human transmission. But what we've seen are human-to-human transmission events amongst close contacts in families, and in healthcare settings.

And as Mike said previously, this is not unexpected for a respiratory pathogen. We have not been presented any evidence, or have seen any evidence, of ongoing transmission where we've had third or fourth or fifth generation, but as we said, our colleagues are working very hard to better understand the extent of infection and where this infection is occurring.

TAG Thank you. On Wuhan, the measures that have been taken, we're following the situation and we're in contact with Chinese authorities 24/7. And almost daily contact directly with the minister himself. And what they're doing is a very, very strong measure, and with full commitment. So based on the situation, taking the action that they think is appropriate, is very important.

We stress to them that by having a strong action not only they will control the outbreak in their country but they will also minimise the chances of this outbreak spreading internationally. So they recognise that. And they're doing both. That's for their own country, but at the same time China should play a bigger role in global health, so they're taking more and significant measures to limit or minimise the international spread. So as long as it's tailored to the problem, and with the commitment that we see, I think we commend their actions.

But since we have a team on the ground we will get more information on the situation and the actions being taken. I mean an assessment of that. On the mutation, I agree with what Mike said. There is stability. We don't see any significant variation. But at the same time we also believe that we have to be cautious and continue our assessments critically because significant mutation can happen any time. So we should keep that with our attention. Thank you.

TA Thank you very much. We will stay with journalists on the line. We will go to Jon Cohen from Science. Jon, can you hear us?

JC I can, thank you. Can you hear me?

TA We can hear you, but please speak loud, and go ahead.

JC Yes, I will. Thanks for taking my call. I just wanted to clarify what it is that the committee is deliberating. It seems like the three things that Mike Ryan ticked off have been met in terms of declaring a PHEIC. So what is it specifically that gives the committee pause to determine a PHEIC? What needs to occur? Is it third generation transmission? What is it exactly? All those things you mentioned, it seems, have been met.

TA Thank you, John, for that question.

DH Thank you for this question. Well, it's precisely the question which we have raised during the meeting of the emergency committee. It was the question of the assessment of severity and transmissibility. Of course we had information provided by the Chinese authorities, but this information, of course, they are limited by the recent outbreak which has occurred, and the committee felt that it was a little too imprecise to very clearly state that it was time to declare, to suggest to the DG, to declare a PHEIC.

This is why the opinion of the committee was split, and this is why it was suggested that according to the evolution of the situation, we of course would be extremely ready to

reconvene as soon as necessary in order to discuss about additional information. And clearly, the information provided about Wuhan is one information.

TA Thank you very much. We will go back here to the room. There is a gentleman who really wants to ask a question here. Please introduce yourself.

UM Thank you. Li Zengxin from Caixin Media. I have two questions. First, do you have any rough ideas about the victims of this virus, the people who died? Do they share any characteristics in terms of gender, age, or pre-existing health problems? And second, has the animal vector been identified, or which animal did the disease come from? Do you have any idea on that? Thank you.

TA Thank you very much for this question. So it's about source and group of animal populations. Maria?

MVK Yes. So there have been some deaths associated with this outbreak, and from the information so far there are some characteristics of those individuals. Many of them have had underlying conditions, underlying medical conditions, and have been of older age. So based on our past experience with other respiratory pathogens, advanced age and underlying conditions are known risk factors for developing severe disease and death.

With regards to the animal source, there are many investigations that are currently underway in China, in Wuhan, and in the live animal markets, for example. We understand that they are investigating and taking samples from animals that were in that market, and they're also doing some environmental samples of those markets to determine if the virus is in those markets.

MR Could I possibly just supplement that? Dr Liang from the National Health Commission today presented a very deep presentation and gave a lot of very useful information, so Dr Liang from the National Health Commission. From the data presented from China, the age distribution of the cases is, as Maria said, very much skewed to older age groups with 72% of cases being over 40 years of age.

The male to female ratio is males represent 64% of those cases. And interesting that they report also that 40% of cases had underlying diseases like diabetes, high blood pressure, cardiovascular disease. So we have to be very careful when looking at age distributions because if the disease more severely affects older people because of underlying conditions that doesn't mean that there aren't infections in other age groups. It just means that the visible infections of very sick people may be in those older age groups.

So that's, I think, what Dr Houssin was pointing to. It's the data we have. And we again thank China for that data, and for the excellent presentations today, but there are still unknowns, and we don't have the full extent of that data to do that. But from what we know now, two thirds males, mainly people over 40 years of age, with the more severe spectrum of disease. And the cases, as Maria said, who died, many of them had significant underlying conditions, which is again a feature that we've seen in previous outbreaks of coronaviruses, if I'm not mistaken, Maria.

TA Thank you very much. We will go back online with James Gallagher from BBC. James, can you hear us?

JG Hello. I wanted to ask a very similar question to the one that Helen did, and that was about the public transport shutdown in Wuhan. And, I suppose, first of all I wanted to know whether that was made in consultation with the WHO, on the recommendation of the WHO, or was it something that was initiated by the Chinese authorities themselves? And also, what would you say to the people in Wuhan who, in some respects, are in quarantine, in the face of this novel coronavirus that you've not decided whether or not is a global emergency? What do you say to the people who are really living this tonight?

TA Thank you very much. Someone would like to answer this question?

TAG On the public transport and other mass gatherings, as you know, should be avoided. So they are taking measures based on that. And also our recommendations were going to go based on the discussion today, later on. But these are from our previous discussions, and they know the measures they should take in order to prevent transmission, especially mass gathering is one of the risks. So we don't think on public transport, we cannot say they have done something unusual.

On the population, I think the measures which are taken are, as I said, they were just announced today, so we will need some time to understand the specific measures that are being taken, since we are working with them. If there are any recommendations that we should give them, we can give them.

TA Thank you very much, hope this answers your question. We will go to Denise Grady from New York Times. Denise, can you hear us?

DG Yes, thank you. Can you hear me?

TA Yes, please go ahead.

DG Okay, thank you. Dr Ryan, could you please clarify the numbers, the figures that you just gave? It wasn't clear to me if with the percentages you were talking about the overall picture of people who are sick, or the people who have the severe cases. So if you could go through that again and make it very clear what those numbers are, again. Thank you.

MR Yes. The data we presented was referring to what we reported today, which was 291 cases, which included those clinical cases requiring admission to hospital, so probably as I said, at the more severe end of the spectrum. The figures that I quote of 64% male and 72% over 40 referred to that group of 291 individuals. I hope that clarifies.

DG Okay, thank you.

TA Thank you very much, Denise.

DG Can I ask one more thing?

TA Okay.

DG Did you actually have a vote on this, and was it a tie vote or something? Is that what you mean when you say there was a split?

TA You are questioning the divergent views within the committee?

DG Yes.

DH 50/50. Even.

TA Thank you very much. So we go back here to the room, Gabriela, please.

GS Yes, thank you very much. Gabriela Sotomayor PROCESO, Mexico. I have one practical question. What is going to be the name of this virus? Do you have it already? I mean, what is going to be the name? And is the virus spreading exponentially? What is your observation on this? Thank you.

TA Dr Briand, please.

SB Currently we use the name 2019-nCoV for novel coronavirus. But we will convene a committee to decide on the official name. As you know, the tradition for viruses is to name them after the place they have emerged, or been discovered, but yet we have... It's not known yet, because investigations are underway. And so we are, for the time being, using this nickname, I would say, and the committee will further discuss what is the appropriate name for this new virus.

TA Yes, maybe, do you want to, Maria, on the question of...?

MVK Yes, sure. This relates to earlier questions about what we know about the human-to-human spreading. And it is still very early days to characterise the full extent of this human-to-human transmission. What we're hoping for from our Chinese colleagues, and also from any countries that have an exported case, or a case imported into their country, is to look for onward transmission. What level of secondary transmission amongst close contacts exists?

We haven't seen any secondary transmission from any of those exported cases, and that is quite important. Within China we've asked our colleagues in China to further explain to us what they're doing to better understand the extent of infection in Wuhan, but also in other parts of China. And then, importantly, amongst those cases that they've identified, how many of those are related to human-to-human transmission, and then in what context did that human-to-human transmission take place.

Was it in a household? Was it in a healthcare facility? Was it in the community? So those are critical pieces of information that we need to know to be able to characterise the full extent of transmission.

MR And maybe I can supplement here, because there's a difference between a daily reporting of cases and when those cases had their onset. And many of the cases reported over the last two days could be cases that have been picked up retrospectively based on enhanced surveillance. And their dates of onset may be over many, many days. Many weeks. We don't know. That is why we did receive some really helpful disaggregated data from China, a number of days ago, around the original cluster around the Wuhan cluster, around the seafood market.

It will be extremely helpful at this point that China, and I believe they have every intention to do so, is to share that disaggregated data, because it's really important that we're able to do that secondary analysis, construct those epidemic curves, and estimate the doubling times and the rates of movement of the virus both in terms of temporal rate and the geographic rate. So we look forward to receiving that data from China as soon as possible.

TA Thank you. Well first I have Hadid, and I have Buddy. Buddy [?] first, go ahead.

BU I have to comply because for we need more opportunity to Chinese media, put more questions, whatever, here or online in Chinese issues. So [non-English]. I have another question to Mr Tedros. Could you give us exact time for tomorrow, what time you'll give us results or an answer? Whatever, morning or afternoon, but we need at least an exact time, or around. Thank you.

TA Okay, just to say that first question was about whether the committee is giving directions to Wuhan authorities on their actions or not. And that was directed to Professor Houssin.

TAG Thank you. I will start maybe from the second one because you want to know when to come. So we will start at noon, like today. At 12:00. On giving advices, we gave advices to China, the national government, and also, of course, will not be limited to that. And most of the guidelines are given to the international community too. So to countries, neighbouring countries and beyond. Thank you.

UM From Eurovision News. What advice would you give to people who are planning to travel to China? Should they cancel or postpone plans? And also, what precautions for those who deem travel necessary should people be taking if they are visiting China?

TAG We will come back with tailored recommendations tomorrow. That's why we're reconvening tomorrow.

TA Okay, yes. A question on the role of the committee was directed to the chair.

DH Yes. The response is, no. The committee did not provide an advice concerning the measures to be taken in Wuhan. But it's clear that the information about the measures taken by the Wuhan authorities very recently, today, are important information, and will certainly be useful to the reflection of the members of the committee tomorrow. Thank you.

TA Okay, thank you very much. I'm just checking if we have more questions online. I'm just saying, repeating again that those who are online and want to ask the question can type 01. I would like to see if we have a Euro News online.

GE Hi, it's Gerard.

TA Hi Gerard, please go ahead.

GE Yes. So we were wondering what can we... How can we differentiate between virus or the flu. And in Europe, without no borders, how can government apply these procedures to restrain the epidemic?

TA Gerard, did you say that how we can distinguish virus from the flu?

GE Yes.

MVK Yes. So that's a good question, thank you for that. So many of these respiratory pathogens that are circulating are... It's very difficult to distinguish between different viruses. What we understand from the 2019 novel coronavirus is that it can cause a range of disease in individuals who are infected from mild disease all the way to severe disease and death. That's quite a range. Investigations are still ongoing to better articulate what proportion of individuals will have mild disease or severe disease, and what risk factors they may have to result in more significant disease.

In the beginning of an infection you start out, perhaps, with some mild respiratory diseases. What we refer to are the diagnostics that have been rapidly developed, thanks to the rapid sharing of sequences by Chinese authorities. So there are labs all over the world now that are able to detect this virus in patients. And so our recommendation is to ensure that individuals can be identified quickly, and isolated quickly. Tested quickly, cared for, and managed, so that they can prevent any further transmission.

TA Thank you very much. We will maybe take one or two last questions before we conclude for tonight. Maybe we start first with Betsy McKay from Wallstreet Journal, and then we will give the floor to our John here. Betsy, can you hear us?

BM Yes, can you hear me?

TA Yes, please.

BM Okay, great, thank you very much. I just wanted to ask a little bit more about the contact investigations going on in China. How much information you have on them. And given the rapidly expanding number of cases, do you feel that China has the capacity to do these contact investigations at this time and stop the spread, or does it need help from outside?

MVK So I'll start with that question and maybe others would like to add to that. So what we understand in terms of the activities for looking for cases is that Chinese authorities are conducting what we know as active surveillance. As you've heard the initial cases were picked up through their pneumonia surveillance system which was established after SARS. Once they identified that cluster they initiated this active case finding, and retrospective case finding of individuals who had pneumonia.

Of the people that they identify with infection they identify their contacts, and then they follow those contacts for a number of days. So they're doing some active contact tracing amongst the identified patients, but they're also looking at healthcare workers, family contacts in healthcare workers. And so those investigations are ongoing. We've requested more information to get better details on this, but yes, it's active surveillance and then contact tracing amongst those identified.

TA Thank you very much, Dr van Kerkhove. John, please, if you can just come to the mic.

JZ Yes, good evening. John Zarocostas with France 24 and the Lancet. I was wondering, sir, in your deliberations this evening, if you analysed the prospects of the trend in case fatality. Do you anticipate it shooting up? It's quite low at the moment at around 3.8%, but in other cases of similar coronaviruses it's been much higher. What's the information coming from the field? And secondly, with reference to antivirals, what are the prospects of coming up with one that's effective? Thank you.

DH Yes. The question about the fatality rate is clearly one of the question marks which was raised during the meeting of the committee. If we refer to the previous coronavirus epidemics in 2003, and more recently with the MERS coronavirus, the fatality rate was much higher than it appears to be today. But this is one of the aspects which needs to... For which we would like to have more information, because it's, of course, a very important point to decide whether it is a major public health threat or not. That's the response.

TA Thank you very much. And maybe we can really take the last question for tonight from...

MVK Antivirals.

TA Antivirals, sorry.

MR Yes, there are... There have been a number of compounds that have been used in the fight against coronavirus, but it's very important to recognise that there is no recognised effective therapeutic against coronaviruses. There are proteins [?], inhibitors, and interferons that may help as adjuncts to treatment, but they have their own issues with toxicity. So the primary objective in an outbreak related to a coronavirus is to give adequate supportive care to patients, and particularly in terms of respiratory support and multi-organ support because the disease can cause a multi-organ failure. And many, many patients can be saved in that regard.

However, there are potential clinical trials that could be done with agents, and that's what we're really focused on right now, is identifying other therapeutic agents and other opportunities to test new drugs. And again, we've been working very closely with the therapies in the four countries, and again, very much welcome, particularly in this case, the participation of Chinese experts on all of the expert networks that are helping us to move towards.

One of the opportunities that sometimes can get lost in an epidemic is not collecting the structured data to understand the clinical disease, and then using drugs, even on a compassionate basis, but collecting the data in a structured way under what we call a Muri protocol, which is a protocol that allows the compassionate use of drugs, but also collects very important data to allow us to advance knowledge. And again, we thank all the countries for working with us to this end.

SB I think it's a really important research effort, and research collaboration, that WHO is coordinating currently to make sure that discovery also on therapeutics and vaccine is accelerated, as much as we can.

MR And just to remind everybody, the Research and Development Blueprint for Epidemics has a broad global partnership called the Global Coordination Mechanism where

all of the major research institutions in the world are involved in that collaboration. And again, this is the type of collaboration we need, the sharing of sequences, the sharing of viruses with revision of guarantees around the adequate benefits that go with the sharing. The sharing of clinical knowledge. This is global solidarity in action, and we need to see that continue in the coming days.

MVK And if I might add to say that the global community has learnt a lot from SARS and a lot from MERS, and we're building upon that knowledge. So the advancements that have been made for diagnostics and therapeutics and vaccine, as Mike has said, through global collaboration and with the Research and Development Blueprint, the advancements that have been made for MERS over the last seven years could be applicable here. And so that, we're trying to build upon that knowledge base to see if that work can help in the current situation.

TA Thank you very much.

TAG Okay, maybe I will say the final thank you, I think? Tarik?

TA Okay. Well, I promised this lady one last question.

TAG You did? I didn't know.

UF Short... As you mentioned SARS and previous outbreaks before, I was wondering if you could comment on the Chinese transparency, and if you could draw a comparison to the outbreak now.

TAG I think on the Chinese transparency probably I have said a lot earlier. So it will only be a repetition. But the cooperation and transparency is very, very commendable, and we really appreciate. And we want that to continue. And today the committee members have witnessed that during the presentation from China, when they were presenting the details of what's happening.

So we'd like to encourage them to continue that way. Transparency is very important. That really, really helps. And if we're going to keep the world safe, transparency is number one. And that's what we're seeing happening. And we encourage them to continue in that direction. You have also heard, I think, from the Chinese leadership exactly the same thing. We have to be transparent and do everything we can to protect ourselves and also to protect the international community. Or the world. So with that, thank you so much again for joining us, and my apologies for keeping you waiting. And tomorrow, as we said, we will reconvene at 12:00, and any information that we will have, we will keep in touch with you. Thank you.

TA Thank you very much, DG, thanks everyone. And yes, tomorrow we will inform you about ways we will communicate the outcome of the emergency committee. Thanks again, and thanks for patience.