COVID-19 virtual press conference - 15 April, 2020

Speaker key:

TJ Tarik Jasarevic
TAG Dr Tedros Adhanom Ghebreyesus
DA Dawn
JO John
SH Shoko
MR Dr Michael Ryan
SS Steve Solomon
MK Dr Maria Van Kerkhove
IR Irina
MA Marcelo
NI Niha
KA Kamran
HE Helen
AN Antonio
KR Karen

00:00:38

TJ Hello, everyone, from Geneva and WHO headquarters. Welcome to this regular press briefing on COVID-19. Today, as always, we have WHO Director-General, Dr Tedros, we have Dr Mike Ryan and Dr Maria Van Kerkhove. Before I give the floor to Dr Tedros from his opening remarks, I hope you received today a number of press releases and other documents that we have sent you. For example we sent you a press release on the first UN solidarity flight that departed Addis Ababa carrying vital COVID-19 medical supplies to African nations.

We also shared with you a strategic preparedness and response plan for COVID-19. We also had a document that states that alcohol does not protect against COVID-19 and some other documents as well. We will ask journalists, after the opening remarks, to really limit their questions to one per person and we will try to be short today. Dr Tedros, please.

TAG Thank you, Tarik. Good morning, good afternoon and good evening everywhere you are. When the nations of the world met to form the United Nations in 1945 one of the first

things that discussed was establishing an organisation to protect and promote the health of the world's people. They expressed that desire in the constitution of WHO which says that the enjoyment of the highest attainable standard of health is one of the fundamental rights of every human being without distinction of race, religion, political belief, economic or social condition.

That creed remains our vision today. The United States of America has been a long-standing and generous friend to WHO and we hope it will continue to be so. We regret the decision of the President of the United States to order a halt in funding to the World Health Organization. With support from the people and Government of the United States WHO works to improve the health of many of the world's poorest and most vulnerable people.

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WHO is not only fighting COVID-19. We're also working to address polio, measles, malaria, HIV, tuberculosis, malnutrition, cancer, diabetes, mental health and many other diseases and conditions. We also work with countries to strengthen health systems and improve access to life-saving health services. WHO is reviewing the impact on our work of any withdrawal of US funding and we'll work with our partners to fill any financial gaps we face and to ensure our work continues uninterrupted.

Our commitment to public health, science and to serving all the people of the world without fear or favour remains absolute. Our mission and mandate are to work with all nations equally without regard to size of their populations or economies. COVID-19 does not discriminate between rich nations and poor, large nations and small. It does not discriminate between nationalities, ethnicities or ideologies. Neither do we. This is a time for all of us to be united in our common struggle against a common threat, a dangerous enemy.

When we're divided the virus exploits the cracks between us. We're committed to serving the world's people and to accountability for the resources with which we're entrusted. In due course WHO's performance in tackling this pandemic will be reviewed by WHO's member states and the independent bodies that are in place to ensure transparency and accountability, for that matter involving all responders. This is part of the usual process put in place by our member states.

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No doubt areas for improvement will be identified and there will be lessons for all of us to learn but for now our focus, my focus is on stopping this virus and saving lives. WHO is grateful to the many nations, organisations and individuals who have expressed their support and commitment to WHO in recent days, including their financial commitment. We welcome this demonstration of global solidarity because solidarity is the rule of the game to defeat COVID-19.

WHO is getting on with the job. We're continuing to study this virus every moment of every day. We're learning from many countries about what works and we're sharing that information with the world. There are more than 1.5 involvements in WHO's online courses through openwho.org and we will continue to expand this platform to train many more millions so we can fight COVID effectively.

Today we launched a new course for health workers on how to put on and remove personal protective equipment. Every day we bring together thousands of clinicians, epidemiologists, educators, researchers, lab technicians, infection prevention specialists and others to exchange knowledge on COVID-19. Our technical guidance brings together the most up-to-date evidence for health ministers, health workers and individuals.

Yesterday I had the honour of speaking to heads of state and government from the ASEAN plus three nations; 13 countries. It was inspiring to hear their experiences and their commitment to working together to secure a shared future. As a result of their experience with SARS and avian flu, influenza, these countries have put in place measures and systems that are now helping them to detect and respond to COVID-19.

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We're also continuing to work with partners all over the world to accelerate research and development. More than 90 countries have joined or have expressed interest in joining the Solidarity trial and more than 900 patients have now been enrolled, to evaluate the safety and efficacy of four drugs and drug combinations.

Three vaccines have already started clinical trials. More than 70 others are in development and we're working with partners to accelerate the development, production and distribution of vaccines. In addition to the Solidarity trial I'm glad to say that WHO has convened groups of clinicians to look at the impact of corticosteroids and other anti-inflammatory drugs on treatment outcomes. Specifically we're looking at oxygen use and ventilation strategies in patients. Any intervention that reduces the need for ventilation and improves outcomes for critically ill patients is important, especially in low-resource settings, to save lives.

Last week I announced the United Nations Supply Chain Task Force to scale up the distribution of essential medical equipment. Yesterday the first United Nations Solidarity flight took off, transporting personal protective equipment, ventilators and lab supplies to many countries across Africa. The Solidarity flight is part of a massive effort to ship life-saving medical supplies to 95 countries across the globe in conjunction with the World Food Programme and other agencies including UNICEF, the Global Fund, GAVI, the United Nations Department of Operational Support, Unité and others, and African CDC and African Union.

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Whether it's by land, sea or air WHO staff are working around the clock to deliver for health workers and communities everywhere. I would like to thank the African Union, the Governments of United Arab Emirates and Ethiopia, the Jatma [?] Foundation and all our partners for their solidarity with African countries at this critical moment in history and I would like to thank President Ramaphosa and the Chairperson of the African Commission, Moussa Fakeh, for their leadership.

The Solidarity Response Fund has now generated almost US$150 million from 240,000 individuals and organisations. This Saturday some of the biggest names in music are coming together for the One World Together at Home concert to generate further funds for the Solidarity Response Fund but not just to raise funds; to bring the world together because

we're one world, one humanity and fighting a common enemy. I thank Lady Gaga, the Global Citizen and all that are participating in putting this concert together.

We will continue to work with every country and every partner to serve the people of the world with a relentless commitment to science, solutions and solidarity; I repeat, with a relentless commitment to science, solutions and solidarity from WHO. Since the beginning WHO has been fighting the pandemic with every ounce of our soul and spirit. We will continue to do that until the end. That's our commitment to the whole world. I thank you.

TJ Thank you very much, Dr Tedros, for these opening remarks. As you know, we send the opening remarks with an audio file after the press briefing but even before that these remarks are posted on our website under the section, Speeches of the Director-General, if you wish to get them a little bit earlier. We will open the floor to questions but please make sure that your questions are short and we will take only one per person. If we are ready, we will try to go first to Dawn Kopecki from MBC. Dawn, can you hear us?

00:13:59

DA Yes, can you hear me?

TJ Yes, please go ahead.

DA Hello, can you hear me? Hi, thank you for taking my question. My question is about funding. How much exactly does the United States Government, not including the Gates Foundation or private contributions - the Government - provide to WHO in a year [?], how much have they already sent you and how much is at stake, that Trump is withholding or threatening to withhold? How does that affect your programme?

TAG I have said it in my statement; we're assessing how our programmes will be affected and not only that; we will try to fill any gaps with partners so we will get back to you after our assessment is completed. Thank you.

TJ Thank you very much, Dawn. Let me see; who do we have next in line? We will go now to our colleague from the Geneva press corps, John Zaracostas, who works for the Lancet and France 24, if I'm not mistaken. John, can you hear us?

JO Yes, I can hear you. Can you hear me, Tarik?

00:15:27

TJ Yes, please go ahead.

JO Good afternoon, Dr Tedros. I was wondering, sir; you just mentioned you're looking at the assessment on the shortfall in funding. Looking at your 20/21 [?] budget it looks like the shortfall will be around $115 million from the United States for 2020. Can you get the money from partners or will you be forced, as you're allowed under WHO rules, to transfer funds from other programmes, up to 5% of earmarked funds? Thank you, sir.

TAG I will repeat what I said again; we will do the assessment and then announce it officially. Thank you.

TJ Thank you very much, Director-General. Now we will go to - also our friend who is often here in Geneva - Shoko from NHK. Shoko, please.

SH Hello, Tarik. Can you hear me?

TJ Yes, we can hear you.

SH Okay. Dr Tedros, the US Department of State says early information from Taiwan on isolation treatment in Wuhan was withheld from the global community by WHO and they also criticised the WHO for choosing politics over global health. How do you respond to such criticism? Thank you.

00:16:58

TJ The line was not the best but I think the question was about Taiwan and isolating Taiwan.

MR Maybe I could just clarify the technical. Maybe Steve or... want to take up the issue on working with Taiwan. The specific issue of reports; there were multiple sources of reports on 31st December regarding a cluster of cases of atypical pneumonia in Wuhan, China. In fact they emanated from a press release or a publication on the website of the Wuhan Health Authority and it was from that publication that many agencies - including our own epidemic intelligence from open sources and I believe FROMED, I believe others picked up on that.

There was a flurry of communications between various agencies to verify that signal. It was WHO then who moved to formally verify that signal through our country office with the Government authorities in China.

TJ Just to introduce, we have our colleague, Steve Solomon, Principal Legal Officer, who will also add something on this topic.

SS Thank you, Tarik. Let me address this larger issue of the question that was just asked. I'd like to do so in two parts; by addressing on the one hand WHO's technical health mandate and on the other hand WHO's status as an international organisation composed of countries.

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On the one hand there is WHO's staff; the doctors, the scientists, the researchers, among many others. They focus on technical and operational public health work. On the other hand there are the countries; that is the member states. The member states decide on the political issues like membership, like observership and they, these 194 member states of the World Health Organization, set the policies of the organisation.

In that connection, the policies of the organisation, it's important to understand that WHO is very much part of the United Nations. In 1971 the countries of the United Nations decided to recognise the People's Republic of China as the only legitimate representative of China. One year later in 1972 the member states of the World Health Organization decided in resolution 25.1 to do the same thing and this has been the official position of the United Nations since 1971.

WHO is the specialised health agency of the United Nations and as such aligns with the United Nations and must do so coherently so we are in the hands of countries on these issues. WHO staff doesn't have the mandate or power to change that. Our mandate is to work to promote the health of all people everywhere. We do this again, as described by the DG, without distinction of race, religion, political belief, economic or social condition. This is part of the DNA of the organisation; it is literally written into the opening paragraphs of the WHO constitution.

This means we work with and for all people everywhere whether they are in Taiwan, China or any other place so I'd like to provide some examples of the well-established arrangements for Taiwan's health experts working with WHO. I'd like first to give five examples of activities in the context of the COVID-19 response and then five more examples of activities in a wider context so ten in all but I will keep this concise.

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In the context of the pandemic first, for the International Health Regulations, the IHR, Taiwan has a formal point of contact, a focal point. The IHR is the international treaty which guides and regulates the global health response. Taiwan's IHR point of contact receives communications and provides information directly to WHO headquarters. It also has full access to the IHR event information site system and in a recent development all IHR contact points have access through that system to the weekly information sessions from headquarters.

Second, their health experts participate in two key WHO health networks set up in January to support WHO's work in the global response. Three of their experts are part of WHO's IPC network, the Infection Prevention and Control network. Two of their experts are part of WHO's clinical management network and every week they join a WHO teleconference, sometimes twice a week, with scores of other experts from around the globe, working to advance our knowledge and our guidance in the response.

Third, two of Taiwan's health experts participated in the WHO Global Research and Innovation Forum that was organised in mid-February with scientists participating from around the world.

Fourth, WHO has briefed and discussed their response with their health authorities in Taipei. Dr Van Kerkhove and I spoke with them by phone in February and again earlier today and work is underway to do so again and Dr Van Kerkhove may want to comment on that in a moment.

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Fifth, WHO also interacts with their health authorities through the European Centres for Disease Prevention and Control so those are some examples related to the pandemic. There are five additional examples I'd like to share with you on a range of other health-related issues.

First, over the course of last year, 2019, Taiwan's experts attended eight WHO expert meetings, more than one every other month. The issues they worked on included

immunisation, drug-resistant TB, vaccine safety, non-communicable diseases and mental health and work is underway for more of this kind of expert participation in 2020 as well.

Second, on influenza a Taiwanese vaccine manufacturer, Adimmune Corporation, contributes to the WHO Pandemic Influenza Preparedness framework. The PIP framework is a critical access and benefit-sharing framework for pandemic flu.

Third, in the fight against cancer their exports have contributed articles published in WHO's International Agency for Research on Cancer publication. Specifically their articles have appeared in the authoritative WHO IARC blue book on classification of tumours.

Fourth, in support of the IHR mechanisms ongoing one of their leading public health experts is included in the prestigious IHR experts' roster.

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Fifth, on issues from pharmaceutical manufacturing to malaria we have exchanges on practical and technical issues. Those are then examples that underscore the principle that WHO works with all people everywhere. I'd like to add that this work contributes to WHO, to the response and to WHO's work in many areas of global public health. I hope that this information clarifies how WHO works together with Taiwan's experts and health authorities and I'd like to offer to Dr Van Kerkhove the opportunity for any comment on today's discussions. Thanks.

MK Thank you, Steve. Just briefly, yes, I had the opportunity to brief scientists and public health professionals from Taiwan and it's always a wonderful opportunity to exchange with any front-line workers, anyone who's involved with this pandemic, to learn from them, to exchange information and how all of this information adds to our understanding of this previously unknown virus.

There were two exchanges that I personally participated in and I'm very grateful for that. They also participated in our clinical networks and our infection prevention and control networks, again having a direct exchange with peers from all over the world. That is another example of how WHO brings together people all over the world to share experiences, which is always very critical early on in an epidemic or pandemic when a lot is unknown.

So this is a great opportunity to be able to exchange and learn and feed that into our guidance so that's what I would like to add. Thank you.

00:26:12

TJ Thank you very much for this comprehensive answer. This was Steve Solomon, WHO's Principal Legal Officer. We apologise that we didn't have a nameplate but we will surely send the name when we send out the audio file. We will now continue with questions. We go to Russian news agency, Interfax. We have Irina with us. Irina, can you hear us?

IR Yes, can you hear me?

TJ Yes, please go ahead.

IR Are you planning to discuss the budget issue with other countries, particularly with Russia?

TJ Irina, can you repeat the question? We only understood, did we discuss with Russia, but what exactly?

IR Are you planning to discuss the budget issue with other countries including Russia?

MR The WHO as part of its governing bodies has a number of mechanisms for discussing budgets with our member states; our programme budget committee, our executive board of the World Health Assembly itself. I'm sure in the coming weeks and months those opportunities will arise as those governing body meetings emerge. As the Director-General said, we are laser-focused on doing a very important job right now and that is suppressing this virus and saving lives.

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TJ Thank you very much for this answer/question that came from Irina, Interfax agency. We will now go to Chile, Marcelo from Chile, La Penguino newspaper. Can you hear us, Marcelo?

MA Hi, hello, how are you? Can you hear me?

TJ Yes, we are all very well. Please go ahead, Marcelo.

MA Thank you so much. Good morning, Doctor. In Chile there are several cities in quarantine. Many will be 20 days old. My question is, is it recommendable to keep these measures, thinking about the population's mental health?

MR Thank you. If I understand your question you said, is it okay to keep these measures while considering people's mental health. That's an important consideration. There is no doubt that restrictive measures, stay-at-home orders, restriction on movement is, has been quite isolating for people and all the more isolating for people who are already isolated or vulnerable.

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Therefore, as we have always said, lock-downs in their own right are not a solution but those population-wide physical distancing measures have proved quite effective in countries where there's been a rapid escalation of cases, sometimes as a result of not being successful in containing the disease in the first place. Those measures have served to suppress some of the transmission.

We have said in our strategy that was released yesterday - and we'll be releasing further technical guidance later today/tomorrow on the transition strategies that countries have. We do note that in Chile and in other countries in South America there's been an acceleration in infections and it did require measures such as that but those measures need to be replaced with strong public health intervention, case finding, testing, contact tracing, quarantine, community engagement and in some ways a new norm where communities, all of us are going to have to adapt to new ways of behaviour, new ways of interacting with each other

while we continue to suppress the virus and while we search for a vaccine and therapeutics that will help us to truly suppress both the number of cases and the mortality associated with this virus.

Mental health; we have issued guidance on mental health and how to manage mental health. It's been one of the big issues, as you've seen in social media. There's a huge outpouring of support for people and in communities they're supporting each other. There's been an incredible outpouring of solidarity between people and while we may be physically isolated I actually have seen amazing stories of us not being socially isolated. It is tough, it's not easy and it's something we must endure and we must endure it until we have in place the other measures to suppress this disease.

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We've said it very clearly to governments; we must work really hard now to accelerate the investments we need in public health infrastructure, in community engagement and education and having the hospital system capable of dealing with cases. If we do that we will be able to make our way out of these more draconian lock-downs and this is something that the World Health Organization wants so badly, with the rest of the world.

MK Yes, thank you. As you've heard us say, we've stopped saying social distancing; we've been saying physical distancing because it's important to remain physically separate but socially connected and there're a lot of ways that you can look after your own mental health and the mental health of your family during these very difficult times.

Whether you are adhering to a stay-at-home order or you are isolated yourself there're a lot of things that you can do. There's no lock-down on laughter, there's no lock-down on talking to your family and finding ways to connect and especially through different religious periods that are coming up there're ways that you can connect with family using technology that you may not have used previously.

Make sure you exercise any way that you can, whether it's at home and doing the class, where it's doing yoga; something to keep yourself physically active. Make sure, if you meditate; find ways to mediate or find ways to turn the news off and have some time for yourself, listen to some music, read a story, play with your kids, just find ways in which you can remain socially connected with others while you're remaining physically apart.

00:32:22

TJ Thank you very much, Dr Van Kerkhove and Dr Ryan. From Chile we go to Pakistan. We have Niha Dagia from Express Tribune. Can you hear us, Niha?

NI Hi, Chris. My question is, there's a looming threat of the virus spreading in this land but Pakistan's negative responses ratio is quite high. What do you think the Government can do to ensure that it is testing the right people and do you think that WHO's influenza surveillance can help in detecting community spread?

MR Certainly, taking your second question first, there's now question that influenza surveillance systems not only can be used in detecting community spread but are being used very much all over the world and are proving very effective at picking up signals that the

disease is at community level. Maria can speak a little bit more on the numbers around that but the SARI or ILI surveillance systems that have been developed over the years by the global influenza surveillance and response system, which has been in place for over 50 years and has protected the world against pandemic influenza...

Certainly much progress has been made in retooling that system to keep a sentinel watch as the disease spreads in communities and that whole system is now capable of doing systematic testing. Not only is it testing all of its samples for influenza; it's also testing those samples for SARS-CoVi2, which is the virus that causes COVID-19.

With regard to Pakistan itself, it is a challenge in a country like Pakistan. I spent two-and-a-half, nearly three years in Pakistan working on polio eradication. I've been in Karachi, I've been in Lahore, I've been in Baluchistan, I've been in Peshawar and working in some of the poorest communities on polio eradication and I personally know the challenge that Pakistan faces in delivering an effective public health intervention in those circumstances.

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The structure of the response in Pakistan is quite well-laid-out with the National Disaster Management Agency. I know that the polio programme in Pakistan has been very much retooled to support the response there but there are limitations. In the slums in Karachi it's very difficult for people to social-distance. Lock-downs do cause hardship and it's really important that government, NGOs and others are working to support local communities when they are suffering both the threat of COVID but also the consequence of restrictions on movement and other things.

Pakistan continues to carry out good surveillance and has had one of the most effective surveillance systems for polio in the world and not only a surveillance system for the virus but has been doing extremely good environmental surveillance and other surveillance for polio viruses over a large number of years.

The National Institute for Health and the Aga Khan University and others are very competent research outfits and there are great public health leaders in Pakistan like Rana Saftar and many others, who can offer the leadership that Pakistan needs on the science side. We trust that the Government is coming together both at national and provincial level to provide the kind of leadership needed. Thank you.

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MK To add to that, yes, we initiated a pilot study a few months or a month back which was trying to utilise the existing respiratory disease surveillance systems in countries for COVID-19 - so in countries all across the world there are National Influenza Centres; these are the laboratories that test for flu and for other respiratory pathogens - to use that basis to test for COVID-19 so that was building on an existing network.

In addition to that what we started a few weeks ago was about looking at these samples that were collected, that were being tested for influenza, to check if they had COVID-19 and so now we have this up and running in a number of sites where we're looking to see what is the percentage positive among those samples for COVID-19 versus influenza. This is helping us track the trends for influenza in the northern hemisphere where the winter season is ending

and also in the southern hemisphere where their winter season is just beginning. That can help us distinguish between COVID-19 patients and influenza patients.

In addition Pakistan in particular; we're working with our country office who are working with partners there to actually consider conducting a serologic survey as well so they're going one step beyond that to actually look for the extent of infection from individuals who may be missed by surveillance systems entirely using serologic assays.

So there are a number of different ways that you can look for cases there; using our recommendations for testing all suspect cases for COVID-19 and contacts who have symptoms; utilising the ILI or the influenza-like illness surveillance system that exists in many countries and also doing serologic studies.

00:38:00

TJ Thank you very much. From Pakistan we go to Azerbaijan where we have Kamran from Royal TV. Kamran, can you hear us?

KA Yes, hello. First of all I know last week the Director-General, Mr Tedros, participated in a meeting of Turkish-language countries and I wonder, how do you appreciate the situation in Azerbaijan? For example today we have 56 new cases and 53 recovered. What do you think about that, how do you appreciate the escalation in Azerbaijan, Mr Director-General?

TJ Thank you, Kamran, for your question. I can speak to the situation in Azerbaijan and maybe the Director-General may want to comment on his meeting with the Turkic leadership in the last week. The number of cases in Azerbaijan as of today is 1,148 and that is a relatively low number given the numbers we've seen around the world. There've been a total of 12 deaths.

What is a concern is that the number of cases over the last week has increased by 80%. We've seen much bigger increases in other countries. It's not in the red zone for increase, over 100% per week, but it's certainly not in the green zone either so the trajectory of the epidemic in Azerbaijan, while it's stable, is still on the upward side so Azerbaijan will have to be very careful in the coming weeks to ensure that it applies the best possible control measures, good case finding, contact tracing, isolation, quarantine, and focuses on very strong public education, on hygiene and physical distancing.

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If it does that Azerbaijan has the opportunity to keep that curve flat, not to flatten the curve but to keep that curve flat but at the moment Azerbaijan is between an exponential situation and a very, very stable situation so more work to do but if the right measures are applied we believe Azerbaijan can remain on a safe trajectory. Director-General?

TJ Thank you very much, Dr Ryan.

TAG The only thing I would like to add to that is the regional co-operation we see in the Turkic-speaking countries at the Turkic Council is very important. We have seen the same thing in the ASEAN plus three - I have attended a meeting of the heads of state this week -

and the African Union; the Caribbean; Latin American countries; that kind of regional co-operation is very important and that could lead us into global co-operation too.

So you have unity at the national level and then regional co-operation, then the global solidarity. That can really help us to fight this virus more effectively and efficiently.

TJ Thank you very much. We will go now to Helen Branswell from Stat. Helen, can you hear us?

HE I was hoping maybe Maria or Mike could give us some information about serology testing. I know that a number of countries have been starting to do this work. Is there any picture yet of how good the serology tests are, how reliable they are and what is being seen in the testing that has been done to date?

00:42:02

MK Hi, Helen. I'll start with this and perhaps Mike would like to add. Yes, we're working with a number of countries across the globe on looking at the use of serologic testing for COVID-19. As you know, there are a large number of rapid tests that are available now commercially to purchase and we're working with FIND and we're working with labs that have experience with coronaviruses to look at validation of those with well-characterised sera. It's important for us to be able to evaluate how these actually work with clinical samples so that is a process that is ongoing.

There are a number of countries right now that are conducing serologic studies which are looking either at stored samples that were collected throughout this pandemic for other clinical reasons, blood bank, blood donations or are doing these studies prospectively.

Today we had a teleconference with 160 groups, 160 people who are working with us on our early investigations, which we're calling the Unity studies now. These are early epidemiologic investigations that focus on cases and contacts, that focus on healthcare workers - that's a separate protocol - a separate protocol for household transmission and a fourth protocol looking at age/population-based serosurveys.

We had a call with them today to see where they are. We have more than 40 countries who are utilising these core protocols in their own countries and we're starting to see some results from some of them from the molecular testing, not yet from the serology and they're asking us, what are the tests that we can use?

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So we're working very hard to validate those tests so that we can be able to say, here are four or five serologic assays that could be used so that we could have a better read-out on how they actually work.

In addition to that we have another serologic Solidarity study - it's called the Solidarity 2 study - which is working to estimate global seroprevalence. The first thing that this study is doing - it's called Solidarity 2 - is working on pulling together a standardised serum panel across the globe so that they could standardise assays and that they can use one protocol to

estimate global seroprevalence. That is a process that is ongoing and we're hoping that we will get some results from that in the coming months.

Having said that, there are some serologic studies that we're now starting to see being published. Unfortunately I haven't seen full papers of these using full methodology. I've seen a study from Denmark and I've seen a study from Germany suggesting around 3.5 to 14% seroprevalence. We need to really understand the methods that were used, the assays that were used in terms of their sensitivity and specificity before we can have a good understanding of what this actually means.

But of course these numbers are lower, the seroprevalence. in these two studies - which are not representative globally - are lower than, I think, many people were expecting; certainly lower than some of the models have predicted.

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But we're working with our partners to understand what all of this means in terms of our understanding of the epidemic waves that may happen with this pandemic virus. Mike.

MR Just to add, Helen - and Maria's really speaking about seroepidemiologic studies where testing is done in validated labs as well, where the testing is bench-done in labs. There is the whole other world of rapid diagnostic tests or point-of-care diagnostics and people are talking very much about, can we do the diagnosis at the bedside, either PCR-based or there are new diagnostic tests based on antigen detection and what they do is they detect the proteins of the virus in the sample, or rapid diagnostic tests based on the antibody that's developed by the body in response to the virus.

There's a lot of very important innovation going on in that space but we need to be very, very careful. Antigen tests; the sensitivity of those tests can be low; in other words they may pick up anything from 30 to 80% of true infections. In other words you can have people who get a negative test who actually have had the infection; the same way with some of the antibody tests.

The important consideration with antibody tests is that many people take up to two weeks or more to develop the antibodies in response to having the infection so they could actually turn out to be negative on the antibody tests but actually have had the infection. None of those are barriers to introducing these products as part of a comprehensive strategy but we do need to be careful to ensure that introducing rapid tests is done as part of a comprehensive diagnostic strategy, a comprehensive testing strategy and where governments can have validated tests that they introduce into the system in a way that adds to the control of the virus, that adds to surveillance, that adds to diagnosis and doesn't cause unnecessary confusion. Many governments around the would are doing that just now.

00:47:04

TJ Thank you very much for this. Next question is from EFE news agency. We have Antonio. Antonio, can you hear us?

AN Good afternoon. Yes. Thank you for taking my question. The main accusations of the US President against the WHO are that the organisation failed to confirm in the first weeks of

January that there was human-to-human transmission and also that it opposed flight restrictions from China to the US and other countries. What has WHO to say in its defence?

MR As the DG said, we will be examining all of the actions taken by everybody in this so in that sense the idea of having a defence at this point seems rather strange. In the first weeks of January WHO was very, very clear; we alerted the world on January 5th. Systems around the world, including in the US, began to activate their emergency management systems on January 6th and through the next number of weeks we've produced multiple updates to countries including briefing multiple governments, multiple scientists around the world on the developing situation - and that is what it was; a developing situation.

The virus was identified on January 7th, the sequence was shared, I think on 12th with the world. We were dealing with a completely new virus. All potential respiratory pathogens... In the initial reports in which there was no mention of human-to-human transmission it was clusters of - a cluster of atypical pneumonia or pneumonia of unknown origin. There are literally millions and millions of cases of atypical pneumonia around the world every year and in the middle of an influenza season sometimes it's very difficult to pick out a signal of a cluster of cases.

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In fact it's quite remarkable that such a cluster was ultimately picked out of 41 confirmed cases ultimately in a cluster in Wuhan. There is always a risk with a respiratory pathogen that it can move from person to person. We've seen with MERS for example; it can spread from person to person but in very particular environments, as we've seen; in an occupational environment, in healthcare environments.

When WHO issued its first guidance to countries it was extremely clear that respiratory precautions should be taken in dealing with patients with this disease, that labs needed to be careful in terms of their precautions in taking samples because there was a risk that the disease could spread from person to person in those environments.

There's a difference between potential for human-to-human transmission - for example avian influenza, H5N1, can spread from person to person but it doesn't spread efficiently in community settings. It can spread in specific settings like family, occupational or healthcare environments, but it doesn't tend to spread at community level. The determination was not whether or not human-to-human transmission was occurring. The determination was, was the virus spreading efficiently at community level outside those environments, and that is not an easy determination to make and one has to make that very carefully.

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So from that perspective - and we'll be very happy when the after-action reviews come; in fact I'm very anxious for those after-action reviews to come because we do them for every outbreak response and I'll be delighted with our teams - and look forward to that engagement - to look and see where we can learn to do better, where we can improve our response.

With regard to flight restrictions, I've certainly been on the record on a number of occasions saying that the imposition of flight restrictions by countries is the sovereign right of any member state. WHO does not control the law on this. WHO's only function under the IHR is

to challenge member states who put in place restrictions to ensure that they have a public health justification for imposing those restrictions and that we are bound then to share those justifications with other countries who may be affected by those flight restrictions.

That is the role of WHO; to ensure that restrictions on flights are public-health-based, evidence-based and limited to controlling the disease, have a balanced impact on travel and trade and are short-lived and only of a duration to control the public health event of concern. That's the framework. The International Health Regulations is a framework negotiated by 194 countries. We simply implement that framework on behalf of our member states.

MK Just to add to that, exactly as Mike said, in the beginning of an outbreak - I actually went back and listened to my press conference on 14th January because it was a significant event for me; it was the first press conference I've ever done. But in terms of the outbreak itself I laid out what are the things we need to know and at the time there were 41 confirmed cases and Tarik was with me at that press conference.

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What I outlined were six things; I outlined, what is the pathogen, how do we identify what this is? At the time we had learned that it was a novel coronavirus and that sequence was shared; the pathogen was identified; it hadn't been shared yet. I'm sorry; it was shared on 12th January. We needed to know the source of the outbreak; how were people getting infected, including a possible animal source, because all of our experience with other coronaviruses and other respiratory pathogens; most of those come from an animal source. We call those a zoonotic spill-over event.

We needed to know what disease it causes and how to care for people. We needed to know the modes of transmission including, if there is an human-to-human transmission, what is the extent of transmission. We needed to know how to limit exposure and what to do, what is the extent of infection. So all of our guidance that was out before we did that press conference was about limiting exposure to people and to prevent transmission, particularly in healthcare settings because all of our experience with SARS and with MERS showed that those viruses could have explosive transmission and amplification in healthcare facilities and so we wanted to ensure that front-line workers were protected.

So our guidance that was put put was about respiratory droplets and contact protection. All of that was out on 10th and 11th January.

00:54:16

TJ Thank you very much. I do remember that press conference and I was going through my emails too. We were starting to reply to some of you who were asking questions as of January 2nd. Next question is for Karen from World Health Alert Crisis. Karen, can you hear us?

KR Yes, I can. Can you hear me?

TJ Yes, please go ahead.

KR Good afternoon. My name is Karen Woolfson from the World Health Alert Crisis. I just want to say, the World Health Organization is doing so much to support countries through the COVID-19 pandemic and other diseases. I want to know what individuals, companies and organisations can do right now to help protect those who work for the WHO, who are doing such wonderful work and show, in my view, so much humanity.

I want Tedros, Dr Ryan and Dr Kerkhove and all of your colleagues to know how much gratitude so many people in the country, in the UK - where I am from - and all over the world have for all of you. Please remember that, please. I want to also just add quickly that, as Tedros says, unity seems more important than ever and I normally write news and analysis but I've also discovered a very big issue after looking at a mass of data from cities worst-hit around the world by COVID-19.

I've discovered these cities all have exceptionally high humidity levels, rising temperatures and carbon dioxide of very high levels during their outbreaks. I'm not a climate person but I'm actually alarmed and now believe this is to do with global warming.

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I've uploaded as a result the study to YouTube for everyone to read and maybe add to because I've realised that perhaps there's a much longer-term issue that the world needs to address to reduce humidity and pollution to help reduce the risk of triggering more disease. People don't understand - I'll just continue a little bit - that COVID-19 appears to be triggered - or not the onset but the outbreaks - by wet and humid conditions, very much like malaria.

But my question really is, what can we do to help you? Because I would like to create a human shield around you but that's not possible and I want to know if there's anything that he world can do for the organisation that is guiding us. Thank you.

TJ Thank you very much, Karen, for these nice words.

MR Yes, thank you very much. I think what we need in WHO, like so many workers around the world, is the space, the support and the solidarity to do our jobs. There are so my thousands of brave front-line workers all over the world doing that today. Our solidarity is with them and we thank communities and others.

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Some specifics; companies, organisations - the DG has spoken about this - everyone's involved, this is all hands on deck. Today the Director-General was in a meeting with World Economic Forum business leaders, talking with them about how they can contribute. We're talking with vaccine manufacturers, we're talking with supply chain managers, we're talking with companies in the pandemic supply chain network around stabilising supply chains for supplies and everything else.

We're talking to producers of medical oxygen, we're talking to people who make ventilators and who could adapt technology for use in low-resource settings but this is a moment where the public and the private sector - there is no public; there is no private sector. There is a combined effort to get rid of this virus and everyone has something to bring to the table.

We try to not control or direct that. What we try to do is to create the forums, to create the convening power, to create the mechanisms by which others can innovate, others can be successful. We try to direct that energy in the best possible way through good policymaking and using science to drive what we do; science, solutions and solidarity.

With regard to climate, there is no question that climate and climate variability is driving infectious disease risk around the world. There are many diseases that are climate-sensitive. We've seen outbreaks of cholera all around the world that are either related to flooding or related to drought; they're either related to too much water or too little water. We have literally billions of people living in periurban, poor environments and in many ways unfortunately those populations are almost like kindling for a fire and not just the fire of COVID but any number of other diseases in future.

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We can't afford to leave people in overcrowded, underserved conditions in such densely-packed environments. This is a risk. It's not only a political and a social risk, it's clearly an infectious disease risk going into the future. Part of the reason that we can't eradicate polio so far is because that virus can become entrenched in those very environments. I was speaking about Pakistan earlier; Pakistan has had a real struggle in clearing infections from large urban environments.

The direct impacts of climate on coronavirus incidents are not known yet. We simply do not know what the impacts of humidity, temperature and other factors are on this particular virus. We do know that other viral pathogens are affected and often occur in seasonal epidemics. The extent to which climate and humidity and cold affect that are in some cases well-known, in other cases not so well-known but in this particular case we don't know yet and quite frankly I'd much prefer in some senses never to know.

I would prefer to get rid of this disease than to have to wait around long enough to know but we may have to learn how to live with this virus and we will certainly have to learn how to control this virus in high-density urban settings. Maria.

MK Only to add to that - Karen, thank you for your very kind words and for all of the kind words that we've received since the start of this. It's very nice to hear. With regard to humidity and temperature, if you remember, this began in very cold temperature, very dry temperature, very dry, low-level humidity and we are seeing this virus have the capability to accelerate in a number of different climates.

01:01:46

As Mike said, we don't know how this virus is impacted completely yet. It's still new and we're still in the early stages of this pandemic, in our fourth month and we need to treat this virus everywhere it shows up as aggressively as we can so we don't give it a chance to take off.

TJ Thank you very much. I think we may conclude here. We had a number of good questions and we hope that we will take all those which are still pending. I apologise to a number of journalists who were contacting me directly and my colleagues and who were in the queue but we will try to give an opportunity to everyone to ask a question at one of the

next briefings. We will send the audio file from this press conference in the next hour together with the name of our Principal Legal Officer, Steve Solomon. I wish you a very nice evening and I'm sure Dr Tedros will tell us; when do we see each other again?

TAG See you on Friday.

01:03:16