Hello, everybody. This is Margareta Harris in WHO headquarters, Geneva welcoming you to our global press conference on COVID-19 today, this Thursday August 27th. We have with us as always in the room the WHO Director-General, Dr Tedros, along with Dr Jaouad Mahjour, our Assistant Director-General for Emergency Preparedness and the International Health Regulations, Dr Maria Van Kerkhove, Technical Lead for COVID-19, Dr Bruce Aylward, Senior Advisor to the Director-General, who leads on the ACT Accelerator, and Devora Kestel,
Director of our Mental Health and Substance Use department. Dr Mariangela Simao will join us later and we're also being joined remotely by Dr Mike Ryan, Executive Director of our Emergencies Programme, and Dr Soumya Swaminathan, our Chief Scientist.

As usual we are translating this simultaneously into the six official UN languages plus Portuguese and Hindi and we'll be posting the Director-General's remarks and an audio file of the press conference on the web as soon as possible. Transcripts will also be available later.

Now without further delay I will hand over to Dr Tedros to give his opening remarks. Dr Tedros, you have the floor.

TAG Thank you. Thank you, Margareta. Good morning, good afternoon and good evening. Tuesday was a great day in global health, the certification of the eradication of wild polio virus in Africa.

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This remarkable effort was started by Rotary International in the 1980s and advanced by Nelson Mandela in 1996 with the launch of a campaign to kick polio out of Africa. At that time polio paralysed 75,000 children every year. Although sadly he's not here to see it we have realised Madiba's dream.

This extraordinary achievement has only been possible because of the determination of the people and governments of Africa and the strong partnership between WHO, Rotary, the Bill and Melinda Gates Foundation, UNICEF, GAVI and the US CDC.

I would also like to acknowledge the many donors who have invested in making this possible including Australia, Canada, the European Union, France, Italy, Germany, Japan, Norway, Russia, Saudi Arabia, Spain, the United Arab Emirates, the United Kingdom and the United States of America and others.

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But the investments we have all made have not only helped to end polio. They have also helped to strengthen health systems, providing vital infrastructure and health workers to respond to other crises including Ebola and COVID-19.

The end of wild polio virus in Africa is a momentous achievement that demonstrates what's possible when we come together in a spirit of solidarity but it's not the end of polio globally. We still have a lot of work to do to eradicate polio from the last two countries where it exists; Afghanistan and Pakistan.
Polio is not the only disease against which we're making progress. Yesterday we also celebrated the end of sleeping sickness in Togo as a public health problem. I would like to use this opportunity to congratulate the people and government of Togo and their partners on this achievement.

Sleeping sickness or human African trypanosomiasis is a neglected tropical disease spread by tsetse flies and is endemic in 36 African countries. Without treatment it's fatal. Seven other countries are preparing to submit their dossiers to show they too have eliminated sleeping sickness as a public health problem; Benin, Cameroon, Ghana, Mali, Rwanda, Uganda and Equatorial Guinea.

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A further three countries have announced their intentions to do so; Burkina Faso, Kenya and Chad. This is incredible progress against a disease which was considered impossible to eliminate just 20 years ago.

Globally we need the same spirit of solidarity and partnership that are helping to end polio and sleeping sickness to end the COVID-19 pandemic. As societies open up many are starting to see a resurgence of transmission. Much of this resurgence is occurring in clusters of cases related to gatherings of people including at stadiums, nightclubs, places of worship and crowds.

These types of gatherings can be amplifying events that can be the spark that creates a much larger fire. Every country and community must make its own decisions about how to host these events safely based on their own level of risk. In some circumstances closures or suspending events may be necessary for a short time.

In others there are creative ways events can be held safely to minimise risk. The Hajj pilgrimage for example went ahead with limited numbers of people who were physically distanced.

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Some sporting events are experimenting with reintroducing limited numbers of spectators. In the weeks and months ahead events, festivals and celebrations of all kinds will take place. There are ways these events can be held safely with a risk-based approach that takes the measures necessary to keep people safe.

These measures should be communicated clearly and regularly. We humans are social beings. It's natural and normal that we
want to come together for all sorts of reasons. There are many ways we can be physically apart but remain socially connected.

For many people the lack of social interaction caused by the pandemic has had a profound effect on their mental health. COVID-19 has impacted the mental health of millions of people in terms of the anxiety and fear it has caused and disruption to mental health services.

People in long-term facilities such as care homes and psychiatric institutions are at increased risk of infection. Mental health professionals have themselves been infected with the virus and some mental health facilities have been closed to convert them into treatment facilities for people with COVID-19.

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Mental health was already a neglected health issue globally. Close to one billion people are living with a mental disorder. Three million people die every year from the harmful use of alcohol and one person dies every 40 seconds by suicide.

Yet relatively few people have access to quality mental health services. In low and middle-income countries more than 75% of people with mental, neurological and substance use disorders receive no treatment for their condition at all. Stigma, discrimination, punitive legislation and human rights abuses are still widespread.

For this year's World Mental Health Day WHO, together with our partner organisations United for Global Mental Health and the World Federation for Mental Health, is calling for a massive scale-up in investments in mental health.

On World Mental Health Day, 10th October, WHO will for the first time host a global online advocacy event on mental health. During this event, the big event for mental health, I will be joined by experts and household names from the worlds of music and sport to talk about what we can all do to improve our mental health and you will hear their stories.

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Each and every individual has a story to tell about mental health. I will also be joined by world leaders who will explain why they're investing in improving the mental health of the people they serve.
We will also show the incredible work being done and what more needs to be done to make sure that quality mental health care is available to everyone who needs it.

Last month I announced the establishment of the independent panel for pandemic preparedness and response, IPPR, to evaluate the global response to the COVID-19 pandemic. The pandemic has been an acid test for many countries and organisations as well as for the international health regulations, the legal instrument agreed by countries that govern preparedness and response for health emergencies.

Even before the pandemic I have spoken about how emergencies such as the Ebola outbreak in eastern DRC have demonstrated that some elements of the IHR may need review, including the binary nature of the mechanism for declaring a public health emergency of international concern.

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The international health regulations allow for a review committee to be established to evaluate the functioning of the IHR and recommend changes to it. Earlier today I informed WHO's member states that I plan to establish an IHR review committee to advise me on whether any changes to the IHR may be necessary to ensure this powerful tool of international law is as effective as possible.

The committee will be made up of independent experts who will examine various aspects of the IHR. Although the review committee's remit is specific to the IHR it will communicate with the independent panel for pandemic preparedness and response and with the independent oversight advisory committee for the WHO health emergencies programme to exchange information and share findings.

Depending on the progress it makes the committee will present a progress report to the resumed World Health Assembly in November and a full report to next year's Assembly in May. WHO is committed to ending the pandemic and to working with all countries to learn from it and to ensure that together we build a healthier, safer, fairer world that we want. I thank you.

00:12:24

MH Thank you very much, Dr Tedros. I'll now open the floor to questions but first I'd like to remind you all that if you wish to ask a question you need to use the raise your hand icon. I'll also remind you that we have to restrict this to one question per
journalist because we have hundreds of you connecting to ask questions, for which we thank you all.

But we have to restrict this briefing to under an hour so that our speakers, who are all leading on this response, can get back to all the many, many pressing jobs on their endless to-do lists. I'll open questions with Stephanie Nebahe from Reuters. Stephanie, can you unmute yourself and please ask your question.

ST Yes, thanks for taking our question. Please, from Reuters, Stephanie Nebahe. Yesterday the CDC changed its... Can you hear me? Sorry.

Yesterday the CDC changed its recommendations for testing and said that people who are asymptomatic for COVID may not need to be tested. This appears to - reverses its previous position recommending that people who are close contacts all be tested. Could you perhaps comment please on whether you think that is a wise policy and whether it goes against your recommendations or whether you have concerns about it? Is the US out of step? Thank you.

00:14:12

MK Thank you, Stephanie. I will begin and maybe Mike would like to add on this. WHO has issued guidance, testing strategies for how to use testing as part of the control strategy for the COVID-19 pandemic. We've outlined guidance for countries that are at different stages of their outbreak, whether they have a smaller number of cases or a larger number of cases.

It's up to the countries to adapt that testing strategy to the needs of the country depending on the capacities that they have, depending on the intensity of transmission that they have.

What we've outlined are strategies to actively find cases so we have recommendations to test suspect cases and in situations where it is feasible and is possible to expand testing where necessary to really look for the cases so they can be isolated and that contact tracing can ensue.

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There are different types of guidance that WHO has put out on this including the normal laboratory guidance that we have. We have additional considerations for different prioritisation of testing depending on your intensity of transmission and we have investigation guidance.
For the specific example of cluster investigations testing may need to be expanded to look for individuals who are on the more mild end of the spectrum or who may indeed be asymptomatic.

Again what's really important is that testing is used as an opportunity to find active cases so that they can be isolated and so that contact tracing can take place, where you identify all the contacts of a known case, and they can be quarantined. This is really fundamental to breaking chains of transmission.

MH  To add. Mike, can you go ahead?

MR  No. I think Maria has covered it extremely well. I think the primary purpose of testing is to confirm whether a suspect case has the disease or not and many countries are focused on that. As Maria said, that allows us then to begin the process of contact tracing to those confirmed cases so it's really important, that testing turnaround.

It's not necessarily how many tests you do. It is important that the rate of testing is kept high but it's also the speed at which those tests are turned around. Getting results back a week or ten days after the test is done really causes a difficulty because then you can't do effective contact tracing.

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So the most important part of a testing strategy is to decide who you're going to test, focusing on those suspect cases and then getting those people tested and getting those results back as quickly as possible and initiating the public health actions either in terms of isolating or quarantining contacts, carrying out cluster investigations.

As Maria said, in those situations, particularly where there's been a cluster of cases, broader testing of other people who may have been exposed and who may be carrying the disease, may have it asymptomatically or be pre-symptomatic there is a rationale for testing those people because you will tend to get a higher return.

But broad-based population-based testing at this point in most countries is not really that useful. It absorbs huge amounts of resources and you have to have a huge capacity to do testing in order to do that.

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So we need to focus on testing the right individuals, we need to focus on maximising the testing within clusters and we need to
focus on the quality of that testing and the speed of turn-around of that testing and then what happens next.

Testing is one thing, testing is one part of the process. It's what happens when you test; how quick the result comes, how quick the investigation happens and how quickly you can intervene to shut down chains of transmission.

Sometimes we get too focused in on the act of testing itself. It's a vital part of a very important chain of activities that helps us to suppress this virus.

MH    Thank you very much, Dr Van Kerkhove and Dr Ryan. The next question goes to Josephine Marr from the South China Morning Post in Hong Kong. Josephine, please unmute yourself and ask your question.

JO    Thank you for taking my question. My question is related to the WHO groundwork team to China in July. Has the team proposed to go to Wuhan and can you confirm to us that the team has been staying for Beijing throughout the three weeks there and why didn't they go to Wuhan?

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I'm also [inaudible] if the date of the [inaudible] the future [inaudible] China is set yet. Are they going to Wuhan and will they meet the earliest patients in Wuhan. Thank you.

MH    Thank you, Josephine. I think Dr Ryan will be able to answer that question.

MR    Yes, thanks, Josephine. Yes, the primary purpose of the advance mission to China was to work with Chinese scientists and authorities to scope out the full terms of reference for an international mission that will have multinational, multi-disease or multi-dimensional expertise on such an international team.

That team will assist in phase-one and in phase-two studies. Phase-one studies will focus on epidemiologic studies in Wuhan, focusing on the chains of transmission in Wuhan and establishing a likely hypothesis for the animal/human species breach.

Then subsequently phase-two studies will go into much more detail on the animal/human side of things so in that sense the two-phased approach is very important.

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An international team is being pulled together right now and many countries have expressed interest in participating in that.
We're also reaching out to partners in the global outbreak alert and response network to ensure that we get the best possible expertise online to be able to work with our Chinese colleagues and counterparts.

Dr Tedros has written to Minister Ma laying out our understanding of the terms of reference and moving forward now with the international team and getting that team ready for deployment, notwithstanding the necessary quarantines and the rules that will have to be put in place to manage the safety of the team.

With regard to the advance team, the plan of having the team on the ground was to have the team in Beijing in order to work with the authorities there. They had to spend two weeks in quarantine just outside Beijing and then worked remotely with colleagues there and then had a week in Beijing working closely with colleagues across the spectrum from the Ministry of Health, from the Ministry of Science and Technology and other colleagues at China CDC in order to work out exactly what the scientific objectives would be for the international mission.

That advance mission was completed as specified and we look forward to having the team on the ground. Yes, it is our expectation that an international team will visit Wuhan and will engage in supporting and collaborating with our Chinese colleagues on the necessary studies to understand the origins of this virus.

MH Thank you very much, Dr Ryan. The next question goes to Laurent from Swiss news. Laurent, please unmute yourself and ask your question.

LA Can you hear me?

MH Very well. Please go ahead.

LA Thanks for taking my question, Margaret. The French Government this morning decided that wearing masks has to be mandatory now at work in all the offices, in all the closed offices as soon as there is more than one person in the room. I was wondering, is that something that you would consider recommending for all the countries that are observing again a fast increase right now? Thank you.

MH Thank you. Dr Van Kerkhove will answer the question.
MK  Thanks very much. Yes, we are aware of the new requirements in France. I think what you're seeing is an example of countries that are looking at the situation in their countries, they're looking at what's happening in terms of transmission, in terms of increasing case numbers and where those are happening and are implementing measures again where and when needed.

I think that what we've outlined with the use of masks - which is part of a comprehensive package, it's one of the tools that are at our disposal that we can use in the prevention and control of COVID-19, specifically in looking at breaking the chains of transmission - that these measures may need to be put in place again.

With the use of masks the recommendation is to ensure that you use masks when you can't do physical distancing. I think one of the things I really want to highlight here and what I'm becoming a little bit concerned about is where I'm seeing the use of masks we're seeing that people aren't really adhering to the physical distancing any more.

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Even if you're wearing masks you still need to try to do the physical distancing of at least 1m and even further if you can. It's not just masks alone, it's not just physical distancing alone; you've heard the DG say this many, many times. It's not just hand cleaning alone; do it all.

But again I think we need to be supportive, we are supportive of governments in the use of the different interventions that need to be done. We are very hopeful that these are targeted, these are time-bound and these are really specific to where they are needed.

MH  Thank you, Dr Van Kerkhove.

MR  Can I supplement there, Margaret, because I think another point that Dr Tedros made in his speech is that we also need to be cognisant of communicating to people changes in the process. There will be and there have been changes in national policy and as countries regionalise their response down to provincial or state or county level then you may find that there are different measures in place in different parts of the country.

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That doesn't represent a failure. That represents governments coming to grips with how different the epidemiology is from one
area to the other and trying to match the measures to the local transmission and therefore doing the least disruption to normal life they possibly can.

That mean that you may have one measure in one area and 5km up the road different measures in place and that can appear confusing. If governments change their policies too often and don't communicate them then there can be confusion on the ground.

So it's really important as governments shift their strategies and policies - and they do have to do that to get more precise in their measures - that they're also able to communicate them and communicate the reasons for the changes and the reasons for the evolution of the response so people understand why something is happening, they understand the purpose of that and then they also have the capacity and the time to put in place the necessary changes to local action and local activities.

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MH   Thank you very much, Dr Ryan and Dr Van Kerkhove. The next question comes from Nina Larsen with Agence France Press. Nina, please unmute yourself and ask your question.

NI   Thank you very much for taking my question. I wanted to follow up on Stephanie's question earlier because I understand that there are different approaches to whether broad-based population testing is needed. But my understanding of the US CDC is that it's changed its guidelines to say that asymptomatic people who have been in contact with known cases do not need to be tested, which doesn't seem to be in line with WHO recommendations.

Could you say clearly if asymptomatic people who have been exposed should get tested and are you concerned that this policy shift in the US could lead to increased transmission there? Thank you.

MK   Yes, thank you. I will repeat what I said before; I think what is really important and what Mike has reiterated as well is that what we have as part of our testing strategy is where cases are. Our recommendations are to test suspect cases and we have definitions for those and we have definitions of contacts and who contacts are of confirmed cases and make recommendations that contacts, if feasible, should be tested regardless of the development of symptoms.

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The focus though is on those that do develop symptoms. You have to remember, our guidance is global and so we put this out for all countries. We also have investigation guidance out for clusters and so when you have outbreaks it's really important that when you're looking specifically for targeted investigations around clusters that you expand the capacity for testing to look for cases that fall on that mild end of the spectrum and may have asymptomatic infection.

Our goal here in breaking chains of transmission is to find where cases are and we know that people who have symptoms transmit and we know that people who don't have symptoms can transmit the virus as well.

So it is important that we find all cases and that the actions that we take in finding those cases through contact tracing; we ensure that the contacts of those known cases are in quarantine. This is how we break chains of transmission. These are really critical aspects of bringing outbreaks under control and I think it is important that as testing - that as part of that strategy in addition to all of the other measures that need to be put in place in situations where it is feasible to be able to expand testing that is done.

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But as Mike has pointed out, it is not just the testing itself. It's getting an answer back quickly, making sure that you have a rapid turn-around to when an individual gets a test, that they know if they have that virus or not.

MH Dr Aylward has something to add.

BA I think sometimes when we're struggling to communicate a concept that perhaps an example might help and I remember this famous story from the US. There was this wonderful - there was this famous bank robber who finally got caught, a guy called Willie Sutton and when he got caught they asked him, why do you rob banks?

He looked at them, a little befuddled, and he said, well, because that's where the money is. When we look at our testing strategies, exactly as Maria is laying out, we really want to prioritise; we're looking for the virus so you're looking for those people with symptoms, cases and you're looking to obviously test those and then your next line, obviously their closest contacts, etc, as you move out.

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But that's a strategy that's going to help you find your virus and be able to stop those chains of transmission.

The other thing, to the point that Maria was highlighting, is that there may be asymptomatic infections out there but there aren't asymptomatic transmission chains so if you really know your case and you're really following your contacts you're going to find those chains of transmission and that's what this game's all about; finding those chains of transmission, cutting those chains of transmission so finding those symptomatic, getting them tested, the closest contacts, the contacts of those; this is how you're going to find this virus and stop it.

MH  Thank you, Dr Aylward and Dr Van Kerkhove. For the next question we will go to India, to Mahab from Punakan news. Mahab, please unmute yourself and ask your question.

MA  Thank you so much for taking my question. My question is, is herd immunity only the perfect solution to end the coronavirus pandemic especially in a country like India?

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MH  Just repeat your question. I think you said, is herd immunity...?

MA  Yes, that's what I said.

MH  An important component of the pandemic?

MA  Yes, I'll repeat my question. My question is, is herd immunity only the perfect solution to end the coronavirus pandemic especially in a country like India?

MK  Thank you. I know Soumya is online as well so she may want to add to this. Normally when we talk about herd immunity we talk about how much of the population needs to be vaccinated to have immunity to the virus, to the pathogen so that transmission can no longer take place or it's very difficult for a virus or a pathogen to transmit between people. That's the concept of that.

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If we think about herd immunity in a natural sense of just letting a virus run it's very dangerous because you would need a lot of people to be infected and there are estimates of what percentage of the population needs to be infected.

That means that many people are infected, many people will need hospitalisation and many people will die. So what we're
working towards in the vaccine - and there are colleagues here who can supplement this - is to have a safe and effective vaccine to provide protection to a large proportion of the population so the virus doesn't have an opportunity to transmit.

But trying to reach herd immunity naturally would be very dangerous because a lot of people would die.

MH I'm just looking in the room to see if anybody else would like to contribute. Soumya, are you online, would you like to add something to that?

SS I think Maria's exactly explained why it's important to think about population immunity with respect to a vaccine because there really hasn't been any infectious disease that has been controlled just by allowing natural immunity to happen. So apart from the fact that it would take a very long time - because we've seen from all the serosurveys around the world that on average five to 10% of people have antibodies which means that they were exposed to the virus and they recovered from it.

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In some cities it has been found to be higher but on average the majority of the world's population currently is still susceptible to this virus which means that the infection can go on and on and on in waves so the best way to achieve that kind of population immunity would be through a vaccine.

Maria also mentioned that what percentage of the population would need to have protective immunity is still something that we are trying to understand but in general the more transmissible the virus the higher the proportion of the people that would need to be immune.

If you take a virus like the measles virus where one person can transmit to 15 to 20 people you need 95% of that population to have protective immunity, through a vaccine in general.

In the case of SARS-CoV2 we know that one infected person could potentially transmit to two to three or it could be even more people given the setting; if it's a crowded setting it could be one person passing to more than three or four people.

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You would need probably about 65 to 70%, in that range of the population to have protective immunity so to get to that level across the world and across all populations, urban and rural and
age groups one can do it most safely and efficiently through a vaccine. Thanks.

MH Thank you, Dr Soumya Swaminathan, our Chief Scientist. For the next question we will be going to Adam Vaughan from New Scientist. Adam, can you unmute yourself and ask your question.

AD Hi. Thanks for giving me the chance to ask a question. It was related to the question earlier on about face masks in Paris. I wanted to ask, are the responses that we've seen this week by European governments to growing cases commensurate with controlling the virus in the region? I'm thinking about things like the face masks in Paris; Germany reportedly planning to limit numbers at private parties and so on.

I appreciate you don't want to get into rating individual governments but I wondered if you could talk about the region as a whole, whether the sort of measures that we're seeing are sufficient.

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MK Thank you very much. I think what we are seeing and what we are learning from countries and what countries are doing is that they are taking this data-driven approach. They are looking at the situation in their country, across their country, looking at it at a low sub-national level, the lowest administrative level possible and seeing, what are the tools that I have that can help break these chains of transmission, that could prevent small numbers of cases becoming clusters, clusters of cases becoming community transmission again.

What we are seeing is countries applying different measures. Again I just want to highlight that what we are seeing are targeted approaches, tailored approaches to the need and hopefully these are time-bound, these are limited to where they need to be, when they need to be implemented.

We mentioned the use of masks in certain settings, mentioned the use of limiting the size of gatherings. I think all of these are different tools that may need to be applied and I think what we're seeing is this calibration of putting in efforts to suppress transmission, keep it at a low level while allowing societies to open up.

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This is one of the critical things that we're all trying to figure out now; how do we use the tools that we have now to keep
transmission low while getting people back to this - quote, unquote - new normal and what this looks like; how do we open up our societies safely? We resume activities but we keep transmission low.

I think this calibration of applying some in a time-bound and a targeted and a tailored way is the right approach. We will see and countries will see. Again we need to support governments, we need to support countries, we need to support communities, we need to support individuals in the application, in the adjustment of these.

We will go through some changes and being able to communicate this in a clear way so that everybody understands what they need to do as individuals and families and communities and at a national level is really, really critical going forward.

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So I think we're in an adjustment period but we're using the tools that we have and this is really important. We have tools that we can use and governments are using them.

MH  Thank you very much, Dr Van Kerkhove. I see no other interventions in the room. For our next question we go to Theo Golden from Bloomberg. Theo, could you unmute yourself and ask your question.

TH  Hi, there. Thank you so much for making time for me. A study published this week in the Nature research journal showed the different T-cell responses could be the cause of disparities in disease outcomes between males and females. Is the WHO exploring a recommendation of sex-dominant vaccines and therapies going forward on the back of this research?

MH  Thank you, Theo. Dr Van Kerkhove will answer your question.

MK  That's a very specific question. We are looking at the T-cell response and there are a number of research groups that are looking at a T-cell response and what this means and if there's cross-protection or cross-reactivity with the other human coronaviruses.

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We are also looking at the different risk factors that put an individual at higher risk of either infection or developing disease. With that information together that's how we develop policies,
that's how we develop guidance going forward and so it's trying to pull all of that together.

It comes from individual studies that come out in the context of everything else that is becoming available and when there are still unknowns we commission research, we ask for more research to be done. I think I will leave it there.

MH Thank you, Dr Van Kerkhove. I think Dr Soumya might have something to add.

SS Yes, just to add to that in terms of vaccine policy, I think this is a very interesting question and as the phase-three trial results come in it will be obviously be important to analyse the data disaggregated by age, by sex and by some of the other comorbidities that impact on outcomes, including on mortality.

We do expect some vaccines will perform better in older people compared to younger people. There are some vaccines which will have a better safety profile and can be used in women of reproductive age or women who are pregnant and some may be more suitable for children.

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So there would be those differences which would be important to study and I think as we get data from the phase-three clinical trials the SAGE, which is the advisory group on vaccines, will look at those and make specific policy recommendations for each candidate based on those characteristics. Thanks.

MH Thank you very much, Dr Soumya Swaminathan and Dr Van Kerkhove. Now we've got somebody who's waiting up very late, Latika Burke in Sydney from the Sydney Morning Herald, Australia. Latika, please unmute yourself and go ahead with your question.

LA Thank you very much. I'm not staying up too late; I'm based in London. I want to go back to the earlier question regarding access to Wuhan. Dr Tedros, if you wouldn't mind answering this, please, is it your intention to go to the Institute of Virology? There have been criticisms in the Financial Times article today from Australian MPs saying that your conduct to date regarding this investigation in the phase one - and I take into account what Dr Ryan said - is about not wishing to offend China.

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So what assurances can you give those who are pushing for this inquiry that it will be conducted in line with the intention of those who wanted it?

MH    For the answer we'll start with Dr Mike Ryan on this one. No. Dr Tedros is... Sorry, he's off the phone.

TAG    It's okay. Thank you for that question. I thought it was fully answered. The two colleagues who travelled to China; the purpose of their visit was to prepare the conditions for the expert group that will travel to do the study.

So the two colleagues who travelled from Geneva to China; they didn't have a plan even to start the study but rather to develop the terms of reference and to prepare the conditions so that the international group can have its terms of reference and other things it needs to start the study.

So I don't know where that information you said came from but it was not their intention to start the study and they had no plan to travel to Wuhan.

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Meaning basically when the travel to Wuhan is required is when the study starts based on the terms of reference and during that time when the international group of experts is put together then of course naturally they will travel to Wuhan to start the study because it's the basis of inquiries like this to start the study from where the first report came.

The first report of the virus came from Wuhan so the group when it starts to study, the international group goes to Wuhan and it starts its studies from there so that's how it will happen. Mike said about the two phases. The trip of the two colleagues was to prepare for the two phases so officially the study will be started by the international expert group actually, of course helping Chinese counterparts.

That's the situation; the preparatory, then the two phases and I hope the study will proceed as planned. I have seen also some articles, I think, which are wrong and with some unfounded information but this is the whole story around the assessment or the study on the origin of the virus. Thank you.

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MH    Thank you very much, Dr Tedros. I think that is now crystal-clear. Dr Ryan, do you want to add anything? I think Dr Tedros has really covered it.
MR  Just to supplement that as part of the preliminary mission our colleagues did have a video conference and communication with the Wuhan Institute of Virology and we would fully expect as part of any normal mission to Wuhan that the local epidemiologic laboratory clinicians and other experts would be fully engaged in the response and we would expect as part of a trip to Wuhan to engage our scientific colleagues and collaborators at the Wuhan Institute of Virology.

MH  Thank you very much, Dr Ryan. Our next question comes from Jim Rupe, Westwood One in the USA.

JI  Thank you very much. First of all let me say, since January it has been an honour to cover these news conferences. I think you guys are heroes. I think you handle the unfair criticism very well that has been tossed at you. My job has become a victim of the pandemic so this is it for me so I just wanted to say, I love all of you guys, I feel I know you so thank you very much.

00:45:24

My question is about the asymptomatic situation. It seems the only way to really understand asymptomatic spread is to really test every single person on the planet to find asymptomatic cases. I know that's something that's not possible and I get the fact that we have to find where the cases are so that's symptomatic people.

But is there anything that could be done to really truly understand if there is and what kind of spread there is with asymptomatic people?

MK  Thanks, Jim, and thanks for your really kind words. It's very appreciated by all of us. Yes, I think there are different ways that we can really better understand transmission and we don't have to test everybody on the planet; it's just not feasible.

The way that we learn about how transmission is happening, the modes of transmission and then when transmission is happening, for example when someone during the course of their infection transmits, comes through specific investigations. There're different investigations that can happen.

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One is through the contact tracing. There are some countries that are testing all of their contacts and they're doing really detailed case contact investigations.
We have a protocol that we have released called the FFX, the first few X cases or the first few hundred cases, which we've developed over the last ten years with many partners - including in the UK; they use this study regularly for flu - where you test your cases and you test your contacts and then you look at what is the attack rate, how often is transmission occurring between a known case and the contact and then you follow those contacts onwards and onwards and that's a really detailed investigation.

That doesn't have to be done in every country and in every location but if that type of study is done in a handful of locations really, really well we can get detailed information.

Another type of investigation that can happen is called outbreak investigations where you have these clusters so for example if you're having a cluster in a closed setting. We've seen some really, really detailed studies in the expat dormitory outbreaks that were happening in Singapore and in that situation they increased their testing capacity to look at the extent of infection in that population and there they broadened their testing to look at where is the virus and who has this virus and in that situation identified asymptomatic cases as well.

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So again there are different types of settings, there are different types of studies that can be done that could help us to better understand this but really testing everybody on the planet is just not feasible so what we focus on is finding the active cases.

If we really start with the symptomatic cases, even if we start with those and we do a really good job of testing the symptomatic cases and you isolate them, you find their contacts; there may be some cases among those contacts. We know that the reproduction number if left to spread could be two to three so you may find additional cases among those contacts.

If they are quarantined we break those chains of transmission. Then you can follow so I think there are lots of different ways that you can get this information through specific studies but just to reiterate, they don't have to be done in all countries all over the place. If they're done really well in a handful of locations we can get detailed information about how many asymptomatic infections there may be and then we can make some estimates and then we can look at transmission from asymptomatic individuals, from presymptomatic individuals, from symptomatic individuals.

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In fact those studies are being published now so there are really good studies that are coming out looking at addressing this.

MH Thanks, Maria. I think Dr Ryan has something to add here.

MR Just to support what Maria said. The primary function is to test symptomatic cases but the tactical use of PCR-based testing to expand investigation around a case and to test contacts of a case can be used to try and shut down transmission. If you have relatively low-level transmission in a country and you have hot-spots then you can deploy your testing tactically in order to support a more intensive testing regime in a particular area for a particular purpose but that testing has a purpose.

The purpose is to shut down a known cluster, a known chain of transmission or chains of transmission in a given area. Broad-based population-based testing, just a screening testing for everybody is number one, very difficult to achieve; number two, will absorb huge amounts of resources.

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It's not impossible but in the current context of the availability of testing if we can't test enough people now who are symptomatic and we can't get those results back within a day and we can't investigate those clusters then the value of doing that type of testing, which might be totally inefficient, is problematic.

However there are newer tests coming online and certainly some of the new antigen-based tests, these more rapid tests that can be done at home - and Bruce may speak to this; we're working through our lab networks and working with the ACT Accelerator and the diagnostic consortium in the accelerator with the group FIND and with the Global Fund, looking and evaluating antigen-based tests which are much more easy to administer, can be done at home.

In a situation like that if we can get to having cheap, widely available, validated, reliable testing then we could introduce broader-based testing as part of our tactical, strategic response. We're not there yet but Bruce may want to comment on how soon we may get there.

00:51:13

But none of this comes cheaply and all of this testing costs and many, many countries simply do not have the resources to expand their testing to everybody in the population. Bruce, you may have a follow-up on that.
MH Dr Aylward does have a follow-up.

BA I do now. Thanks, Mike. I think the worst thing that could come out of a conversation like this is a headline that says, global testing not feasible, because that's not what we're saying. What we're saying is, global testing is not the efficient way to tackle this disease and we want to be efficient and go after the virus, as we've said repeatedly and Mike and Maria have laid out so clearly.

Also remember broad-based testing; if you know your cases and you've got a quarantine and a tracing system in place it's unnecessary as well. There are other ways to chase and find who is infected with this.

Finally it can be problematic because for the reasons, I think, Maria mentioned earlier people have a sense that, okay, great, I'm not infected, when in fact you're incubating the virus as well. It gives you a picture at a point in time so again we've got to be smarter than the virus and use all that we know about it to trace, track and then break those chains of transmission.

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To Mike's point, we've relied on PCR and you've heard all the problems that we've had. It's hard to scale sometimes especially when you have really intense transmission in an area so one of the big thrusts of the ACT Accelerator has been to try and evaluate all those tests that are coming out and there's some great work being done by groups like FIND, the Foundation for Innovative New Diagnostics.

What they try and do is evaluate every one of these in different settings to try and identify among this huge number what are the real gems that are going to give us the kind of breakthroughs we want in this rapid testing.

The last couple of weeks - and you may have seen some announcements in the news over the last couple of days - it looks as if from our side there may be some tests now that are hitting the level of sensitivity and specificity so that you can get much more rapid testing.

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We hope to get more operational testing of those certainly later this year, the beginning of next year to really get a big shift in how we can expand testing and make it more rapidly available. It'll take a couple of months to get there but the real trick was
breaking some of the technical challenges for the rapid diagnostics and that's looking better.

But even then we want to be clear because people often compare these to a pregnancy test and think about it that way; who takes a pregnancy test? People who think they might be pregnant. I haven't taken one and probably won't.

But the reality is similarly with these rapid diagnostics you early want to be targeting them to people who may have been infected or may have been exposed. This is where you're going to get the bang for your buck so you really want to be as efficient as possible. It's not only an issue of feasibility, it's really an issue of efficiency when you're chasing a virus like this.

MH Thank you very much, all three doctors, for your excellent answers. We are coming up to the hour so we'll make this the last question. It goes to Bianca from Globo. Bianca, please unmute yourself and ask your question.

00:54:40

BI Hi, Margaret. Thanks a lot for taking my question. Bianca [Unclear], correspondent here in Switzerland for Globo News and Globo, the largest TV network in Brazil. As many countries in the world now are preparing to reopen schools I would like to know if WHO has news regarding new studies, new research on the impact of COVID-19 on children like transmission, fatality, etc. Can we say that death among young children is rare or not exactly and what are the recommendations regarding kids especially in a country like Brazil? Because I remember WHO has said that the impact of extended education disruption in Africa could be worse than the virus itself. Would you say the same about Brazil? Thanks a lot.

MH I think this one will go to Dr Van Kerkhove and maybe Dr Ryan might want to add.

MK Thanks, Margaret, and thanks for the question. Yes, we are learning a lot about this virus in children and there are more and more studies that are being conducted every day and I will say this every day as we sit up here in these press conferences because really the acceleration of science in this pandemic, the acceleration of really high-quality research needs to be complimented and needs to be highlighted.

00:56:06
With regard to children there are three things that we are looking at at a minimum. One is what does the disease look like in children and luckily the majority of children and adolescents who are infected with this virus tend to have mild disease but that is not universal.

We do have examples of some children who have developed severe disease, who have required intensive care and there are some children who have died so we cannot say universally that it's mild or asymptomatic in children.

The second thing that we look at is infection and we look at can children be infected and how often are children being infected. We know that children and adolescents can be infected with the SARS-CoV2 virus.

From some of the seroepi studies that are being done, the population-based studies - there are only a few that are published on this that have looked at different age breakdowns - there appears to be a different incidence of infection or seroprevalence among children by different age groups with the youngest ones, very young children having the lowest rates of seroprevalence and it increases with age with children in their teens having similar rates to young adults so teenagers can be infected.

Then we look at transmission so we know that globally in the beginning of the pandemic many countries, many areas closed schools, not all and so many children were not in a school situation, they were at home.

Through some household transmission studies we know that children were infected through contact with their parents or contact with adults. We also know vice versa was true too so sometimes children infected adults but again it seemed to be at a lower rate.

When we look at some of the transmission studies that are being done now again we need to break the age groups down so we see differences in transmission among the youngest children versus those that are in their teens and adolescents and teenagers and all children can transmit but it seems to be occurring more in the older children.

So when we think about schools we look at that, we look at all of this and the evidence that we have on kids and adolescents. We
look at how the schools operate and where the schools are because as we've said repeatedly schools do not operate in isolation, schools are part of communities and so if transmission is occurring in the communities transmission can happen in the schools and it can happen in other settings that are within that community.

So we worry about the children themselves but we also are concerned about the adults and other people that work at the school. The considerations that we have outlined - and we've done this together with UNICEF and with other partners and we have formed a technical advisory group which is made up of experts who are advising us on educational institutions globally because also remember that not all schools and educational institutions look the same.

Some are boarding schools, some have open air, some are certain times of the day, certain days of the week; there're a lot of considerations and buildings.

00:59:16

So we've outlined considerations of how schools can be opened safely in terms of looking at the different types of public health measures that can be in school, the physical distancing, with hand cleansing stations, with ensuring the use of masks where appropriate and looking at ventilation, looking at disinfection in the school, making sure that the schools have plans in place.

So what is the plan if you were to detect a suspect case, what is the plan if you are to test that individual and find a case and carry out contact tracing and the necessary next steps.

Then also making sure we look at the communication plan so talking with the children, listening to the children, talking to parents, listening to the parents, talking to the staff, listening to the staff. Again these are complex questions, these are decisions that need to be made at the most local level because it depends on the context that's happening in the communities.

01:00:10

But everybody recognises the importance of schools not only for education but for safety, for security, for food in some situations.

MH Thank you very much, Dr Van Kerkhove. Dr Ryan, would you like to add anything? No. Yes?

MR No, I think Maria did a great job there.
With that we will conclude this press briefing. I want to thank you all and I apologise to those who have not been able to ask your question. Contact us via media enquiries and we will follow up with answers.

I'd also like to say we'll miss Jim Rupe very much and thank him for his great work and support and also thank everybody in the media who are doing extraordinary work to get the right information out to people. The importance of your work cannot be underestimated [sic] and we appreciate it.

I'd also like to mention we had an excellent social live yesterday with really, really good questions about mental health and I'd recommend that you all have a look at that. Now I'll hand over to Dr Tedros for final words.

Just to say thank you, join you in thanking all those who have joined today and look forward to seeing you in our next presser. Thank you so much. All the best.

01:01:52