Good afternoon, everyone. This is Fadela Chaib speaking to you from WHO headquarters in Geneva and welcoming you to our global COVID-19 press conference today, Friday 12th February. Simultaneous interpretation is provided in the six official UN languages plus Portuguese and Hindi. Let me introduce to you the participants at this press conference.

Present in the room are Director-General of WHO, Dr Tedros, Dr Mike Ryan, Executive Director, Health Emergencies, Dr Maria Van Kerkhove, Technical...
Lead for COVID-19, Dr Soumya Swaminathan, Chief Scientist, Dr Bruce Aylward, Special Advisor to the Director-General and Lead on the ACT Accelerator. Joining us remotely are Dr Kate O’Brien, Director, Immunisation, Vaccines and Biologicals and Dr Janet Diaz, Team Lead, Healthcare Readiness.

We also have present in the room a member of the international team to China, Dr Peter Ben Embarek. He’s also an expert at WHO on food safety and zoonosis and team lead of the international team. Joining remotely is Professor Marion Koopmans, Head of the Department of Viroscience at the University of Rotterdam. Now without further delay I would like to hand over to Dr Tedros for his opening remarks. Dr Tedros, please, you have the floor.

00:02:37

TAG Thank you. Shukran, Fadela. Good morning, good afternoon and good evening. As you know, the independent expert team to study the origins of the COVID-19 virus has completed its trip to China. This was an international team comprising experts from Australia, Denmark, Germany, Japan, Netherlands, Qatar, the Russian Federation, the United Kingdom, the United States of America and Vietnam.

The team also included experts from WHO, the Food and Agriculture Organization of the United Nations and the World Organization for Animal Health. I want to start by thanking all members of the international team for their work. This has been a very important scientific exercise in very difficult circumstances.

The expert team is working on a summary report which we hope will be published next week and the full final report will be published in the coming weeks. We look forward to receiving both reports which will be released publicly. When the summary report is published we will hold a further press conference with the full international team.

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Some questions have been raised as to whether some hypotheses have been discarded. Having spoken with some members of the team I wish to confirm that all hypotheses remain open and require further analysis and studies. Some of that work may lie outside the remit and scope of this mission.

We have also said that this mission would not find all the answers but it has added important information that takes us closer to understanding the origins of the virus. The mission achieved a better understanding of the early days of the pandemic and identified areas for further analysis and research.

And we will continue working to get the information we need to answer the questions that still need to be answered. Today we’re joined by two members of the international mission, Dr Peter Ben Embarek, the Team Lead of the international mission, and Professor Marion Koopmans, Head of the Department of Viroscience at the University of Rotterdam in the Netherlands.
Dr Ben Embarek and Professor Koopmans will be available to answer your questions.

Meanwhile the number of reported cases of COVID-19 globally has declined for the fourth week in a row and the number of deaths also fell for the second consecutive week. These declines appear to be due to countries implementing public health measures more stringently.

We should all be encouraged but complacency is as dangerous as the virus itself. Now is not the time for any country to relax measures or for any individual to let down their guard. Every life that's lost now is all the more tragic as vaccines are beginning to be rolled out.

Alongside traditional public health measures how quickly we can collectively expand vaccine manufacturing and roll out vaccines to all countries will determine how soon we can control this pandemic. At the beginning of the year I issued a global challenge to ensure that vaccination of health workers and older people is underway in all countries within the first 100 days of 2021.

Next Friday marks day 50. Today I'm inviting everyone to join me in a call to action to accelerate production and share technology so we can produce enough vaccines for the world and share them equitably.

Some people didn't think it was possible to produce a vaccine so quickly but it was and very historic. Never in the history of the world had we actually developed vaccines in less than a year after the emergence of a new virus.

Now some people say that vaccinating the world is not possible. They are dead wrong. As Nelson Mandela, Madiba, said, it always seems impossible until it's done. So join me; wherever you live or work sign on to the new declaration and let's build a movement to make history together. It's everybody's responsibility.

Vaccines are vital not only for saving lives but also for preventing the long-term effects of COVID-19, which we're only beginning to understand. WHO's work in this area focuses on three key needs for these patients; recognition, research and rehabilitation.

Earlier this week WHO held a global meeting of patients, clinicians and other stakeholders to advance our understanding of what is officially called post-COVID condition or long COVID, discussed with very distinguished colleagues and people.

This was the first in a series of meetings and focused on working towards an agreed clinical description of the condition, which will be important for clinicians to diagnose and treat it.
This illness affects patients with both severe and mild COVID-19. Part of the challenge is that patients with long COVID can have a variety of different symptoms that can be persistent or can come and go.

Earlier this week WHO released a case reporting form that will allow more data to be collected on long COVID in a standardised way. This will help to improve the understanding, surveillance and clinical management of the condition.

Given the scale of the pandemic we expect many people to be affected by post-COVID-19 condition or by long COVID and of course the best way to prevent long COVID is to prevent COVID-19 in the first place.

Finally yesterday was the International Day of Women and Girls in Science and I would like to pay tribute to all of the incredible women scientists who work for and with WHO all over the world, including those at this press conference, Janet, Kate, Maria, Mariangela, Soumya and Marion and also all colleagues; Gabi, Fadela, Aurora and others.

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I want to say to all of you that you're an inspiration to me and I hope you are an inspiration to many girls and boys around the world.

Finally, finally I would like to wish everyone who observes it a very happy lunar new year. Fadela, back to you.

FC Thank you, Dr Tedros. I will now open the floor to questions from members of the media. I remind you that you will need to raise your hand via the raise your hand icon in order to be able to ask your question. I will start by giving the floor to AFP, to Robin Millar, Agence France Press, to ask the first question. Robin, can you hear me?

RO Yes, hello. Thank you, Fadela. A question for Peter Ben Embarek; now that you've returned from visiting Wuhan do you think that if you'd been allowed to go much earlier you would have found more evidence and more conclusive evidence? Thank you.

PBE Thank you for the question. It would have been difficult to go there much earlier. If you remember, last year in February it would have been impossible to be in Wuhan because Wuhan was in total lock-down and in the middle of fighting the disease.

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It took a few months before the city was reopened and business returned to normal. During the summer we then were in China and developed plans for working in Wuhan later on and we then engaged with the international community to identify an international team of experts, identify a Chinese team of experts and then planned the current visit we just achieved.
So it took [inaudible] to analyse and look at this time took months to conduct. Many of these studies have involved thousands of people and researchers in China to conduct and if we had gone much, much earlier we wouldn't have had the same material to look at.

It was not a mission to go and chase an animal in a market or chase a patient somewhere or looking for that type of evidence. It was a totally different mission than what you somehow imply could have been done. In that case, if we had done that kind of investigation on the ground, chasing the first animals and the first patient that would have been something that could have been done perhaps back in December when the outbreak was detected.

But often when these emerging disease outbreaks happen the first reaction - and it's a natural reaction - is to treat patients, to understand the disease, to find cases. It's not about trying to figure out how this happened but maybe that's something we should look at in the future and how better to respond to emerging disease outbreaks.

FC Thank you, Dr Peter Ben Embarek. I would like now to invite Paulina Alcazar from Incadela News, Cancun, Mexico, to ask the next question. Paulina, you have the floor. Paulina.

TR Thank you, Fadela, and a very good afternoon. In a tourist place like Cancun we know that vaccinated people from all over the world have been asked to continue to respect the rules of wearing masks, social distancing, washing their hands and so on. So they won't get sick but they might still infect others even though they're vaccinated. What's the difference between people who've been sick and who've developed antibodies and those people who've been vaccinated? Is it the same thing? Is it possible for them to continue to infect people even though they might not be able to contract the illness? Thank you.

FC Dr Swaminathan will start. Thank you.

SS Yes, thank you for that question. It is an important question and I should say that our understanding of this is evolving as more and more studies are coming out. You asked about people who've been infected with SARS-CoV2, have had the disease and if they are susceptible to get the infection again and transmit again and also about people who've had vaccines. Both of these are areas of active research. We know that after you have a natural infection you do develop immunity and studies have shown that these antibodies that develop last for at least six months after the infection and that apart from antibodies you also develop something called cell-mediated immunity.
The immune system has two arms, a cell-mediated response and an antibody or a [unclear] response and the antibodies are of course easier to measure but the cell-mediated immunity also plays a role and in fact those rate the memory T-cells that last for much longer. We know from SARS1 for example that this can last for many, many years.

So ongoing studies will tell us how long people are protected and there was a recent study done in the UK which showed that having a natural infection, if you look at a cohort of health workers who were followed up for six to eight months there was at least an 85% protection against a repeat infection.

Again we're now getting reports of people getting reinfected with a new variant of the virus and there've been some initial reports from South Africa suggesting people who've had prior infection could get infected again.

It's a similar story with vaccine really; we're learning about protection against vaccines [sic] and one thing that's clear is that the majority of clinical trials that have reported out so far; there's a clear protection against severe disease which needs hospitalisation and death.

I believe that in all the clinical trials that have been done so far with the seven or eight candidates that we know about there's been no case of a death or a severe disease with hospitalisation occurring in the vaccine group regardless of which vaccine so I think that is clear; it is protecting against severe disease.

Whether it's going to protect completely against infection is not so clear and it might reduce the severity of infection. There are reports now that if you have the vaccine and you get infected the viral load is much lower so the chances of infecting others may be lower.

But until we know more about this is it important for people even after vaccination to take precautions, to wear a mask, to wash hands, to maintain the physical distancing, to really reduce the risk of... Even if you have an asymptomatic infection you're not going to get sick because you've had the vaccine but you could still carry the virus in the nose and spread it to others.

So we need to make sure that are are controlling the spread of infection by taking all precautions. Maria or Mike, you might want to add to that.

MK Thanks, Soumya. Just to reinforce that last part, it's really critical that we continue to carry out the individual-level actions whether we have been infected through natural infection or we have been vaccinated. As we learn more about this immune response, as Soumya has outlined, we need to continue to adhere to the measures.
We need to continue to physical distance, we need to continue to mask, we need to continue to wash our hands, avoid crowded spaces, open the windows because this will prevent onward infection.

As Soumya also has said, we're learning more and more every day about natural infection but also about the impacts of vaccination and it's really critical that we stay the course. These measures work. We are seeing these measures work in countries that have these virus variants, that have all of the different SARS-CoV2 viruses that are circulating globally. These will break chains of transmission; they keep you and your loved ones safe.

So it's a really important message to reinforce that we have to stay the course and do everything that we can so follow the local guidance, continue to distance, mask, hand washing, open windows, avoid crowded spaces, etc, because this will keep you and your loved ones safe.

00:21:04

FC Thank you. I would like now to invite Helen Branswell from Stat to ask the next question. Helen, can you hear me?

HE Yes, thank you. This is for Mike. Could you give us an update on the Ebola outbreak - the Ebola cases in North Kivu? Has INRB managed to sequence the data yet and to indicate whether this is linked to the previous outbreak or is a new outbreak?

Do you have any information on whether any of the people who've been infected were vaccinated in the earlier outbreak? Thank you.

FC Dr Ryan will take this question.

MR Thanks, Helen. It's great that I can understand Canadian. Your connection wasn't 100% good but I think I got it. With regard to the sequencing and with great credit to our colleagues in Congo, the INRB received the samples in the last two days, the sequencing process is already begun and we expect Prof Myembe and his team, Steve Ahuka and others, at INRB to report the genetic sequencing results over the weekend. They're very important and that's from the first case.

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We've had that second case, again another female case, a lady of 60 who died and we've had a further case reported this afternoon though I don't have details of that case. There are epidemiologic links between the two unfortunate women who've passed away but we're still unclear around the original community source of the case.

182 contacts have been listed, 95 in Biena and 87 in Katwa and only three of them remain unseen at this point and un-followed-up. What is happening is that over half of those contacts were vaccinated in the previous Ebola outbreak and most of those are actually health workers who were previously
vaccinated so we're seeing some benefit to the previous vaccination but obviously we have to look at the length of time that the vaccine protects.

The alert system has begun already. We've already had 17 high-risk alerts from the community, seven alive, six community deaths. All have been investigated, all have been tested and all are negative. We've seen the Butembo laboratory for Ebola virus disease has been reinforced and we have 9,000 Genexpert cartridges in country, trained technicians on site.

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The first shipment of Ebola vaccines was transferred to Goma the day before yesterday and arrived in Butembo today. Ultra-cold-chain equipment are being set up in Butembo today. Vaccination teams are being trained today and we have vaccine in country to vaccinate 16,000 people and we have mAb114 and Regeneron monoclonal antibodies in country to treat 400 patients. Those therapeutics are currently in Kinshasa and Mbandaka and they're being airlifted into the area over the weekend.

We've already begun with colleagues and NGOs and with UNICEF and obviously the Government and Red Cross to work on infection prevention, control in the hospitals, safe and dignified burials with the Red Cross movement, risk communication and community engagement with UNICEF and partners and continue to run the EVD survivor care programme in the area.

Logistics is difficult but we do have ultra-cold-chain technicians on the ground and more of that equipment arriving, as I said. We have both international and national staff on the logistics side, fleet managers, a small number of vehicles and a lot of other equipment to refurbish the Katwa treatment centre, which is currently being upgraded for treatment of cases.

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We've also transferred specialist VSAT satellite communications from Mbandaka into the area and Thoria satellite equipment, generators and other material that will help to support the response. We're doing this in support of the Government and their leadership in the response and in partnership with our colleagues in UNICEF, Red Cross, international and national NGOs in the area.

Obviously two cases and now a third may not seem like many, many cases in the light of what we see globally with COVID but we've been on the alert, waiting for any signal of the return of Ebola in eastern Congo and will do everything in our power to support the Government in the response.

I think that's it, Helen. We will obviously let you all know when we have sequencing results and you're right to ask that question. It's really important that we understand the origin of this first case and that sequencing data will give us vital information to move forward. Thank you.
FC Thank you, Dr Ryan. I would like now to invite Megan Maltini from Wired to ask the next question. Megan, can you hear me?

ME I can, yes. Can you hear me?

FC Yes. Go ahead, please.

ME Thank you for taking my question. I'm hoping you can respond to some of the criticism around the limited new information that has come out of the joint mission into the origins of SARS-CoV2. Given the amount of time that's passed and the limited access to raw data that team got does WHO consider the joint mission a success at this point?

FC Thank you, Megan. Dr Ryan will take this question.

MR In my experience in public health success is a relative term and can never be declared. I think what we've made is progress and certainly recognising the leadership that Peter and the team have shown, we've made progress and that's all you ever make in science, progress.

FC Thank you, Megan. Dr Ryan will take this question.

PBE I'm a little bit more optimistic than Mike here. I think we have been successful in many ways. We have gained a lot of new knowledge about the start of the events, we have much, much better understanding of what
happened in December 2019. We have been able to demonstrate that there was substantial circulation of the virus in Wuhan in December.

We've been able to link genetic sequences of different patients across the city in December with their physical location in and outside the market across the time from early December to the end of December so we have a much, much better understanding of what happened there in December, a much better understanding of what happened in the market, the role of the market.

We have also been able to trace back all the suppliers of different wild animal products into the market as a potential clue for further studies. We have also much better feeling and understanding that there was no widespread, no large cluster of the disease in Wuhan or elsewhere around Wuhan in the months prior to December 19.

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So we have a much better understanding of what happened. We still are far away from understanding the origin and identifying animal species and all the pathways from which the virus could have entered humans in December.

But, as Mike said, this is only a first step and we knew from before going there that it would take a long time and a lot of effort to get there so it's just a start but we have made a lot of progress. I don't know if Marion, who's on the line, would like to add to that.

FC You have the floor, Dr Koopmans, please go ahead.

MA Just a small addition; I think what is important is to realise that understanding what was not the case is also part of understanding where to look further. That's never the most enthusiastically shared part of science but a critical part of it so one of the elements that was done and reviewed is for instance the testing and screening of more than 30,000 animals of different species from different locations to get a first broad-brush idea if there's any of those, a potential reservoir. All of those tested negative.

That could just as well have yielded a smoking gun, which is what happened when the same was done during the MERS outbreak. In this case it tells us that there's not a clear candidate for an intermediate host yet but the work on the market and the trace-back process that was done there does provide some leads for next steps in the studies.

I think those are as important parts of a quest like this as data that tell you the positive news.

FC Thank you. Dr Van Kerkhove.

MK Yes, very briefly just to support what is being said, the report hasn't actually been issued yet so the report is in progress, the Director-General said and as the team said previously there will be a summary report and then there will be a full report.
So there is more information to come but as you have been hearing from the start no one mission can answer every question. It's always a series of studies that are always done, it's a collaboration, it's a process and as Marion and Peter have just said, finding this information and then asking more is always part of that process.

So we need to manage the expectations of what is coming from one mission report but then know that there's a series of studies that will continue. This is how this works in terms of our understanding and we're advancing our understanding but the report hasn't been issued yet so saying there's limited information...

We really need to issue that and the team is working very hard to make sure that the summary is issued as quickly as possible followed by a full report. As you heard, the Director-General said that there will be a further press briefing by the whole international team when that summary report is issued so there is more to come.

FC Thank you. I would like now to invite Simone McCarthy from the South China Morning Post to ask the next question. Simone, can you hear me?

SI Thank you so much for the opportunity to ask a question. Can you hear me?

FC Very well, Simone, and thank you for being with us so early in the morning.

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SI My pleasure. I'm grateful for the opportunity to ask a couple of questions to Dr Ben Embarek and Dr Koopmans. One of the things that... I'm very much looking forward to the report, as Dr Van Kerkhove said. One of the things that I wanted to ask about is you noted no evidence of widespread circulation prior to December 2019.

Could you please tell is if you believe there is evidence suggesting that there may have been any earlier cases? For example I of course saw the Wall Street Journal report regarding the 92 cases of COVID-like symptoms in Hubei hospitals. I'm just curious to know a little bit more about the circumstances of those cases and what further testing strategy you would recommend within China to continue to understand any cases prior to December 2019. Thank you.

FC Thank you, Simone. I would like to invite Professor Marion Koopmans to take this question. Professor, you have the floor.

MA Thank you. The first conclusion was reached after reviewing three big pieces of work that have been done and that will be described. One is a
detailed overview of mortality statistics and looking and analysing them to see if something unusual has happened in the period before December.

The second was doing that for influenza-like illness and the third for a national disease reporting system that reports all kinds of disease. For this third system that involved 97,000 individuals or records that then were reviewed by teams of clinicians in the different healthcare settings that have those records.

They down-selected that with their views or their knowledge on the clinical presentations to 92 cases. Those 92 cases were then looked for and were tested recently for antibodies. Not all of them were available any more; some of them had died and some of them could not be reached.

So that's been done so that is potential COVID cases but based on the available evidence are negative so would be ruled out. The one question that is out there is, can you still rule that out a year after an infection for instance, is the serology negative then. But this is the basis of what was done.

In order to take that next step and then maybe look for small pockets of cases is to do a more extensive serological study but with historic samples and they have now been identified through a blood bank system and there is discussion ongoing in China to be able to access those because that would give a better view of the situation on the ground in November. I hope that answers your question.

Thank you, Professor. I would like now to invite David Hoffman from the Washington Post to ask the next question. David, can you hear me?

Yes, thank you very much. Dr Tedros, you said in your opening remarks that the scope of the mission - there may have been some matters outside its remit. What are you going to do about that and will you appoint another group to look at these matters? Particularly how do you feel about these reports of the gain of function research that were conducted?

For Dr Ben Embarek, you mentioned in your Wuhan press conference that there was no correlation between the virus that's caused the pandemic and those viruses which were worked on at the Institute of Virology in Wuhan. But I wonder, did you ask when you were there about the unpublished viruses that are held, the samples, the sequences, did you audit those or can you give us a sense of why you made this comment that there was no correlation? Thank you.

Thank you, David. Dr Ben Embarek, you have the floor.
Thank you. I don't think I exactly said there was no correlation between our virus, SARS-CoV2 and the viruses worked with in the lab. What we have been told by the different labs in Wuhan that we visited and discussed with is that none of these were working or had the SARS-CoV2 virus in their collections or in their laboratories.

I think that's in line with what other laboratories around the world have said as well, that this virus has not been worked with knowingly in any of the labs around the world working with coronaviruses.

It's of course always possible that the virus is and was present in samples that have not yet been processed or among viruses that have not yet been characterised but knowingly apparently, from all the labs we've talked with nobody has seen this virus before.

If that had been the case we would probably have seen it over the years mentioned in research publications. Usually laboratory researchers who work and discover new viruses would immediately publish their findings; that's common practice around the world, in particular with new, interesting viruses.

So that's the current situation and that reflects, I think, what I probably said at the press conference. Thank you.
What is your response, Dr Tedros, because you have emphasised the need for a continued push to ensure everyone is vaccinated, to these mixed messages?

FC Thank you, Sophie. Dr Swaminathan, you have the floor.

SS Thank you, Sophie. I can start. Again this is an area where every day we're learning something new and the issue of the variants; it's obviously becoming headlines everywhere, particularly in countries where these are being detected. But this is the natural evolution of the virus, this is what viruses do; they evolve.

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It's just that our ability to track this evolution has become so much better now; I think it's the first time that we have on a day-to-day basis genomic sequence data being uploaded to databases so that scientists are able to analyse, to report and then it's out there in the public domain.

So this is good of course because it means that we're learning, we're tracking the virus very closely but we also have to take a more balanced approach and not really start panicking about these variants.

So I would say that it's a matter of concern and we are tracking it. Dr Fauci and other scientists are talking about these to explain to people what we know and how it might be impacting on vaccines and this is something we need to watch very, very closely.

Both vaccine manufacturers and others are currently evaluating their own vaccines to see how effective they are against these new variants that are being described and the study from South Africa; a small study but it did throw up some concerning findings about reduced efficacy specifically for the AZ vaccine.

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But we've also seen from the studies of Novovax and J&J that efficacy against 501V2 variant is reduced compared to the previous wild-type virus.

Having said that, I want to repeat again that the trials that have been done so far in South Africa as well as in Brazil with different candidates have shown complete protection against severe disease and hospitalisation and death. There hasn't been a single case reported in any of the trials.

Our goal in the first wave of vaccinating people is to protect those at highest risk from severe disease and hospitalisation and death, whether these people are healthcare workers or front-line workers or at high risk of exposure or they're older people and those with underlying illnesses who are at higher risk of getting severely ill.

So vaccines are protecting against getting severely ill even though they may not protect completely against getting infected or mild disease. So at this point
the risk benefit of using these vaccines of course is much more towards benefit than risk.

Having said that, a country will need to make an evaluation based on their own epidemiology and South Africa is in a unique position with a huge amount of genomic surveillance data where they know that 90% of new infections are due to the 501V2 variant and therefore the risk/benefit analysis may be different.

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So for countries where this variant is present scientists and public health experts in the country would make a risk/benefit but for the vast majority of the world right now definitely the benefits of using a vaccine outweigh the risks and that's why the recommendations have been made. Bruce, do you want to come in?

BA Thank you very much, Soumya, and thank you, Fadela, and thank you so much for the question because it is an extremely important one and we're in the middle of an unprecedented crisis of our times with this COVID pandemic.

We risk paralysis in overthinking sometimes what we need to do next. We're into a war. We have a limited armamentarium of tools but we have some very, very good tools and among the very best tools we have are the vaccines and we've seen a lot of data on these vaccines that suggests they're efficacious, they're effective; some overwhelming data in that regard.

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What we've also learned from the variants is that we've got to optimise our control over this virus as rapidly as possible and we use the tools we can as rapidly as possible. This has been looked at very carefully by some of... We have just had our Scientific Advisory Group of Experts look very, very closely at this, all of the available data and their consensus was very clear on this; that we need to take advantage of this tool.

As we go forward we're going to learn more about our vaccines, how they operate against the different variants, how they operate in different settings but we have full confidence right now that these tools will help us get a better grip on this pandemic.

Will it be optimal? Possibly not if it doesn't address mild and moderate disease but everything we have right now suggests that it could achieve that key goal of reducing severe disease. If we learn differently as we go forward then we adjust but for the moment we go forward with the tools.

We're in a war here. We have the tools w have at hand, we have the weapons we have at hand and they're good and we need to be using them and that's the case right now with these vaccines.
So I think we need to be very careful that we don't get confused as we risk then paralysing our response at a crucial time.

FC Thank you. I would like now to invite NSK, Japanese agency, Shoko, to ask the next question. Shoko, can you hear me?

SH Hi, Fadela. Can you hear me?

FC Yes, very well. Go ahead, please.

SH Thank you for taking my question. French health authorities recommended today that only a single shot of vaccine should be given to people who have been previously infected. I'd like to ask Dr O'Brien for your comments to explain WHO's position on the number of times for COVID-19 vaccines. Thank you.

MR We have O'Briens and Ryans here. I suspect that was for Kate. Okay, maybe Soumya.

FC Thank you, Dr Swaminathan.

SS I must say that journalists are really keeping on top of the science and challenging us to be on top of it as well. This is a minute-to-minute update but yes. The WHO has a policy-making body for immunisations called SAGE, the Strategic Advisory Group of Experts on Immunisation. They've existed for 22 years now and they really make recommendations on the use of vaccines.

We've had three policy recommendations from SAGE; first on the Pfizer vaccine, then on the Moderna vaccine and just two days ago on 10th February on the AstraZeneca vaccine. Each of these recommendations - which are on our website; they're called interim recommendations because they can be updated as more data becomes available - lay out clearly how this vaccine can be used, what's the age group, what's the dosing schedule, etc. That's for countries then to adapt and make their own policy recommendations on the use of vaccines.

Some regulatory agencies and countries are looking more closely into the data that they have from individual vaccines and making decisions on age groups but also on what you just mentioned; that a single dose is enough if you've had a natural infection before.

That's based on immunogeneity studies from the vaccine trials, particularly from the AstraZeneca trial which showed that if you have people who've had a previous infection and you measure the antibody levels after the first dose you're getting a really good booster, as much as you would get in people who have no prior infection and who get two doses.
So essentially your first infection is serving as a first dose and then your first dose of vaccine is serving as a booster. Again more studies are needed, longer follow-up is needed to find out how long this kind of protection is going to last but I think when countries are faced with a scarcity of vaccines and there's a supply shortage then countries are using policies to make those vaccine doses go further and so based on the science so far making these kind of recommendations.

But as far as WHO is concerned our guidelines are still to use two doses for the vaccines that we've evaluated so far. Thanks.

00:53:40

FC Thank you, Dr Swaminathan. I would like now to invite Donato Mancini from the Financial Times to ask the next question. Donato, can you hear me?

DO Hi, good afternoon. Can you hear me?

FC Very well. Go ahead, please.

DO On the vaccines and the variants of concern, I understand what you say on the risk/benefit ratios globally and on rolling out the vaccines now. But when do you expect to have good enough data on efficacy from the current version of the AstraZeneca vaccine against severe disease caused by 501V2 and P1 and where will that data come from? Thank you.

FC Dr Swaminathan.

SS The study in South Africa that was done and reported on was 2,000 people. It was a small study with about 20 infections in each of the groups so very difficult to conclude on severe disease and hospitalisation because it was also a young group.

We are looking forward to the results of the trial that's going on now in the United States; I think it's about 30,000 people and it should be reporting out some time in March is what we've heard. That should give us a good amount of additional data on this vaccine but of course we don't know how many of the infections are going to be caused by these variants.

00:55:15

It's likely there will be B117 variant because that's picking up in the US but perhaps not the 501V2 and so what is going to be done in South Africa now will be very important to watch and the scientists in South Africa are really designing a programme of the vaccine roll-out where they're going to be collecting data.

They're going to be collecting valuable data both from the AZ vaccine; I understand also from the Johnson & Johnson vaccine that they will begin to use and because they have such good genomic surveillance facilities I think
we learn a lot now from both the programmatic roll-out of these vaccines as well as from future clinical trials that they may be planning. Thanks.

FC Thank you. Dr Bruce Aylward would like to add something.

BA I was going to take the second part of the question because it was the easy part. Donato asked, where will these answers come from. It's going to come from the places where that variant is circulating obviously and they're rolling the vaccine out.

When you look at the maps - Maria's group and Mike's group generate these fantastic maps that show you where these variants are found and then as the AstraZeneca vaccines and other vaccines are rolled out for example you will want to look at, are there breakthrough infections, is there severe disease among people who've received the vaccine.

Then, exactly as Soumya said, you want to be looking at what was that virus. That's what will be happening over the coming months and how soon we will get an answer is going to depend on how much of the AstraZeneca vaccine is used, how much circulation there is in the places where that vaccine is used of the variant and then of course whether or not there actually is breakthrough infection and severe disease associated with it.

But one would suspect that if there continues to be relatively intense transmission we'll have a sense of that relatively quickly because we already know that you will still see some mild disease so you should be able to get the other part of the answer relatively quickly.

FC Thank you. I think we have come to the end of this press conference. I would like to invite Dr Tedros for his last comment. You have the floor, DG.

TAG Thank you. Thank you so much, Fadela, and thank you to all for joining us, especially to Peter and also Marion. I would like to use this opportunity to thank the expert group that's conducting the studies and to our media, to all media today who have joined thank you so much and see you in our next presser.

FC Thank you, Dr Tedros, and to all our participants. Just to remind journalists, we will be sending the audio file and Dr Tedros' remarks right after the press conference. The full transcript will be available on the WHO website tomorrow morning. If you have any follow-up question please do send an email to mediaenquiries@who.int

The press briefing is now closed. Thank you.