

# COVID-19

## Virtual Press conference

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### Speaker key:

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SS	Professor Samba Sow
MM	Professor Marco Medina
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MK	Dr Maria Van Kerkhove
AR	Dr Ana Maria Henao Restrepo
MP	Dr Marie-Pierre Preziosi
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TR	Translator
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SA	Sara
KOB	Dr Kate O'Brien
KA	Kai
HE	Helen
SF	Dr Soce Fall
SO	Sophie
BA	Dr Bruce Aylward

**00:00:39**

TJ Hello to everyone watching us through the Zoom platform or any of the WHO social media platforms and welcome to this

regular press conference on COVID-19. My name is Tarik Jasarevic and I will be moderating today's press briefing, which will focus on the new phase of the Solidarity PLUS trial for COVID-19 treatments. Journalists have received a press release on this topic an hour ago.

We are happy to be joined today by a number of special guests, whom we have announced in our media advisory and whom Dr Tedros will shortly introduce as well. Today with us here in the room we have, beside Dr Tedros, the WHO Director-General, Dr Maria Van Kerkhove, Technical Lead on COVID-19, Dr Mariangela Simao, Assistant Director-General, Access to Medicines and Health Products, Dr Ibrahima Soce Fall, Assistant Director-General, WHO Emergency Programme.

We also have Dr Marie-Pierre Preziosi and Dr Ana Maria Henao Restrepo, who are both Co-Leads of the WHO Research and Development Blueprint. Online from WHO's side we also have Dr Kate O'Brien, who is Director, Immunisation, Vaccines and Biologicals, Dr Bruce Aylward, Senior Advisor to the Director-General and the Lead on the ACT Accelerator, Dr Mike Ryan, who is Executive Director of the WHO Health Emergencies Programme; also with us is Derek Walton, Legal Counsel. With this I will give the floor to Dr Tedros for his opening remarks.

**00:02:36**

TJ Thank you. Thank you, Tarik. Good morning, good afternoon and good evening. Last Friday the Ministry of Health of Guinea informed WHO of a case of Marburg virus disease in the country's south-west in a man who died eight days after onset of symptoms. This is the first known case of Marburg in West Africa. WHO and our partners are supporting Guinea's Ministry of Health to investigate the source of the outbreak, trace contacts and inform the local community about how to protect themselves.

About 150 contacts have been identified and are being followed up including three family members and a health worker, who have been identified as high-risk close contacts. Marburg is a very different virus to the one that causes COVID-19 but many of the elements of the response are the same; isolating and caring for those infected, tracing and quarantining their contacts and engaging local communities in the response.

There is no licensed vaccine for Marburg although there are vaccines under development and WHO is working with our partners to seek opportunities to assess them during this outbreak through the R&D blueprint for epidemics.

## **00:04:14**

By contrast we have several effective vaccines for COVID-19 and yet cases and deaths continue to rise. Last week the 200 millionth case of COVID-19 was reported to WHO, just six months after the world passed 100 million reported cases and we know that the real number of cases is much higher.

As I said recently, whether we reach 300 million and how fast we get there depends on all of us. At the current trajectory we could pass 300 million reported cases early next year but we can change that. We are all in this together but the world is not acting like it.

We already have many tools to prevent, test for and treat COVID-19 including oxygen, dexamethasone and IL6 blockers but we need more for patients at all ends of the clinical spectrum from mild to severe disease and we need health workers who are trained to use them in a safe environment.

In October WHO reported results of the Solidarity trial which tested four treatments for COVID-19 involving almost 13,000 patients in 500 hospitals in 30 countries. That trial showed that the four drugs had little or no effect on hospitalised patients with COVID-19. We expect final results from that trial next month.

## **00:06:16**

Today we're pleased to announce the next phase in the Solidarity trial called Solidarity PLUS. Solidarity PLUS will test three drugs; Artesunate, a treatment for severe malaria, Imatinib, a drug for certain cancers, and Infliximab, a treatment for immune system disorders such as Crohn's disease.

These drugs were chosen by an independent panel of experts that evaluates all the available evidence on all potential therapeutics. The trial involves thousands of researchers at more than 600 hospitals in 52 countries. I would like to thank the governments, hospitals, researchers and patients who are participating in the trial as well as the three manufacturers who have donated the drugs for the trial; IPCA, Novartis and Johnson & Johnson.

One of the first countries to enrol patients in the Solidarity PLUS trial is Finland. Today we're honoured to be joined by Finland's Minister of Social Affairs and Health, Her Excellency Hanna Sarkkinen. Your Excellency, kiitos. Thank you so much for joining us today and you have the floor.

## **00:07:49**

HS Thank you, Director-General, Dr Tedros, and dear representatives of the media. The COVID-19 pandemic has had a devastating impact on people's lives and livelihoods and on societies. At the same time we have seen the development of new and innovative approaches to address COVID-19 including the rapid development of vaccines, diagnostics and digital solutions.

The progress of development with therapeutics has been slower. As Dr Tedros wisely said, we are all in this together and we can come out of this together. The ACT Accelerator and COVAX provide important multilateral support in providing equitable access to essential countermeasures.

Finland has supported the ACT Accelerator with €100 million and COVAX with €12 million and we are starting vaccine donations through COVAX in the coming weeks. COVID-19 clinical trials have a great potential to save lives. Even though there are approximately 3,000 clinical studies on COVID-19 most of them are too small to yield significant information. We need clinical trials that are large enough to bring better treatments for COVID-19 patients.

**00:09:29**

The two such large adaptive and pragmatic international clinical trials are the World Health Organization's Solidarity Trial and the United Kingdom's Recovery trial. The Recovery and Solidarity trials have reliably assessed the effectiveness of more than ten different treatment modalities over 50,000 patients.

Finland is proud that we have joined the World Health Organization's Solidarity trial consortium. We are pleased with the announcement of the beginning of the new phase, the so-called Solidarity PLUS trial. It includes three newly repurposed drug and brings together more than 50 countries.

In Finland 14 major hospitals have joined the Solidarity trial. On 6<sup>th</sup> August two Finnish university hospitals in Tampere and in Helsinki were the first hospitals globally to start to randomise patients to the Solidarity PLUS trials. Solidarity and Recovery trials have set new standards and have shown that a combination of old-fashioned randomisation, established clinical trials networks and imaginative use of modern information technology are able to provide rapid and reliable therapeutic solutions.

**00:11:09**

In the future it is important to prioritise large, simple, co-operative platform trials and to enable collaboration between governments, regulators, funders, health services, patient organisations, universities, researchers, doctors and other stakeholders.

The World Health Organization plays a crucial role in facilitating such collaboration. We are looking forward to successful outcomes from the Solidarity trial. Thank you.

TAG Thank you, Your Excellency, and thank you for your leadership in advancing research on therapeutics. Kiitos again. One of the strengths of the Solidarity PLUS trial is that it's a truly global study with researchers all over the world participating. Today we're joined by two principal investigators in the Solidarity PLUS trial; my friend, Professor Samba Sow, Director of the Centre for Vaccine Development in Mali and Professor Marco Medina from the National Autonomous University of Honduras.

Professor Sow is also WHO's Special Envoy for COVID-19 in Africa. Samba, thank you for your leadership in the pandemic, your participation in Solidarity PLUS and for joining us today. You have the floor.

**00:12:47**

SS Thank you very much, Dr Tedros, Director-General of WHO and my dear friend and brother. I want to start by thanking WHO for their leadership and vision not only with the Solidarity trials but with the pandemic as a whole. They have fought for global solutions to what has been undoubtedly one of the most troubling global issues of our times.

When the pandemic started there were a lot of concerns that Africa could become an epicentre to this awful virus due in no small part to its fragile health system but despite the frightening third wave which is occurring now and the lack in so many countries of accurate reporting and enough testing the pandemic has not impacted Africa in the ways which were expected.

That is not to say that Africa is still not at risk; it very much is. We risk losing many hard-fought gains of the last decade through the decimation of essential health services and the economic impact. This is why trials such as the Solidarity therapeutics trial, the so-called Solidarity PLUS trial by WHO, are so critical.

**00:14:34**

In my career in vaccine development and research I have seen the capacity of African researchers and their contribution now

more than ever in solving this puzzle for Africa and the world. I am very grateful to WHO and other partners for seeing this opportunity to build the capacity further and for the investment in doing so.

Building this capacity will ensure that we are well-placed in Africa to carry on in developing the tools, drugs and vaccines which are so needed for now and in the future.

To end I will say, the truth is that in the global fight against infectious diseases a country, even a continent can never succeed alone. We will only triumph if we stand and work together. I thank you.

TAG Thank you. Thank you, my friend, Samba. Professor Marco Medina is also no stranger to WHO. He is a neurologist and Director of the WHO Collaborating Centre for Research and Community Intervention in Epilepsy in Honduras. Professor Medina, thank you for joining us. We know Honduras is one of many countries now facing an increase in COVID-19 cases and deaths. We look forward to hearing from you about the situation in Honduras and how you think the Solidarity PLUS trial can help. You have the floor.

### **00:16:20**

MM Thank you, Dr Tedros Adhanom, Director-General of the World Health Organization. Dear all, it is a great honour to participate in this important meeting announcing the next phase of Solidarity, called Solidarity PLUS. The National Autonomous University of Honduras, a WHO collaborating centre, the Honduras Ministry of Health and the Honduras investigators in six hospitals in our country have participated in the first Solidarity trial in collaboration with 30 countries around the world and now we are working with investigators from 52 countries in this second phase under the leadership of the WHO.

The leadership of the WHO in this project has been fundamental and the first trial was an extraordinary achievement where hundreds of investigators around the world were working globally to evaluate an effective treatment for this pandemic of COVID-19 and represented one of the largest international randomised trials around the globe.

### **00:17:51**

During this project we have gained a lot of experience and we strongly believe that the next phase will be a success, to find a

major treatment for this disease. Our national experience has been an important tool for promoting local research capacity.

Collaboration at a regional and global level is also an extraordinary achievement and a crucial step to find therapeutic answers to this terrible disease. In Latin America, in Honduras we are creating a major problem for this disease and finding a cure for these problems is crucial but as well as the vaccine access is also another answer and improving the healthcare in our region is an important step that we need to work on.

We would like to congratulate the World Health Organization for this major global initiative and we are looking forward to working with you in the future. Thank you very much for this invitation.

TAG Thank you. Thank you, Professor Medina, and thank you to all our guests today; Minister Sarkkinen, Professors Samba and Medina. We welcome your engagement and support. My sincere hope is that one or more of the drugs being tested in the Solidarity PLUS trial will prove to be effective in treating COVID-19.

WHO remains committed to working with you and with all of the researchers and patients in the trial to advance the science, find new solutions and to do it all in solidarity. Tarik, back to you.

**00:20:04**

TJ Thank you, Dr Tedros, and thanks to our distinguished guests. Hopefully they will be able to stay with us and answer any possible questions from media. Now we will open the floor to journalists. You need to click the raise hand icon and also, as always and thanks to our interpreters, you may ask a question in the six UN languages plus Portuguese. With that we will start with the first question; that's Kamran Kasimov from Ureal TV from Azerbaijan. Kamran.

KA Do you hear me?

TJ Yes, very well.

KA Hello. Greetings from Azerbaijan, from Ureal TV and thank you. I have a question. We see every day [unclear]. Will these drugs - I mean the Solidarity PLUS trial - be resistant to the new types of infection in future? Because every month there are new types of COVID-19. [Unclear]. Thank you.

**00:21:18**

TJ Kamran, can you please say it one more time, slowly? Sorry for this; thank you.

KA About the Solidarity PLUS trial; every month we see new strains of coronavirus. Will these drugs from this trial be resistant to the new types of infection in future?

TJ Thank you, Kamran. I think the question is, these new drugs entering the trial and the variants; will these drugs be effective against variants?

MK Perhaps I'll start and then I'm looking to Ana Maria and Marie-Pierre, if they would like to specifically address the Solidarity PLUS trial. I think this is a very good question, the question about whether or not the therapeutics that exist will work against the SARS-CoV-2 virus and the variants of concern, the variants of interest that are emerging.

I think this is why we have these trials, this is why we have these collaborations around the world that are trying to consolidate and pull together as much information as we can almost in real time to indeed answer the question that you've asked; do the therapeutics work, do the diagnostics work to be able to detect cases, do the therapeutics work to prevent severe disease and death, do our vaccines continue to work to prevent severe disease and death?

**00:22:46**

This is why we have established all of these studies, this is why we have established these global collaborations and these regular consultations, to gather that information to answer that question.

So there will be more variants; the virus is evolving, it continues to evolve every day. We have four variants of concern that we are tracking; there are four variants of interest that we are tracking and many more alerts that we have on our radar in which we are looking to see what will happen.

So it's a good question; I don't have an answer to that but I think what is important is that we have a process in place to be able to get those answers relatively quickly. Ana Maria.

AR We totally agree with the question being important. What we are doing is we have an independent panel of experts who continuously review the evidence that emerges on potential treatments and we continue to ourselves, through the Solidarity trial but also through our collaborations with other trials around the world, try to gather information on whether or not the treatments we are using now or the treatments we are

evaluating in the trial lose their effectiveness because of the variants.

**00:23:57**

So far we have no evidence to ascertain whether or not that is the case and in the case of the three drugs in the Solidarity trial, as Dr Van Kerkhove just said, this is why we are doing the trial; to ascertain if these drugs indeed have an effect on the duration of hospital stay, the need for ventilation and mortality in the context of the circulating variants.

MP Just to add to these very important remarks that this is precisely why the Solidarity trial is so important; because with such large platforms it's the only way that we can get to the answer as fast as possible.

Also with the geographic span, as you mentioned, we have many variants and those variants can appear anywhere on the planet. So having so many sites in so many different countries and regions will help us get to these answers as fast as possible.

TJ Thank you, Dr Preziosi and Dr Henao Restrepo. Dr Mike Ryan would like to add something. Dr Ryan.

**00:25:10**

MR I think the question raised is also very relevant in terms of treatments for emerging diseases. We've just had the Director-General speak about Marburg disease, for which we don't have specific therapeutics and this is always the case when we have new diseases emerge or new variants emerge.

Right now we're dealing with the therapeutics in the area of COVID or any disease; right now we have things like oxygen and supportive care, which is really important in all emerging disease. That's where we start.

Then we have the drugs that modulate the immune response; you've heard about the different steroids - dexamethasone - which help reduce inflammation. Then we have specific antibodies that can be developed; hyperimmune globulins or monoclonal antibodies. They're essentially giving the person an antibody boost to fight the specific virus.

**00:25:59**

Then there are specific antivirals; usually small molecules that interfere in some way with the virus in its reproduction so there are four potential targets and we're always behind the curve

when it comes to an emerging disease because we're always starting behind the line.

That's why the R&D blueprint for epidemics is so important and the work that's going on around the world to develop more broad-spectrum antivirals, to be able to develop monoclonal and polyclonal antibodies quickly, to be able to deploy and know how to use steroids and immunomodulators, things that modulate the immune response and also getting people access to higher standards of care; basic oxygen and intensive care.

So it's a combination of all of these things and it's really important we learn the lessons now of COVID. Again we're starting with Marburg and we don't have the necessary tools and we have to start learning how to develop these tools in advance and have them ready to go when we see these diseases emerge.

I think there are many lessons being learned and I think it's really testament to all those researchers around the world in all those countries who are working with WHO and our partners to deliver on these platform trials that give us the power to be able to test many drugs at one time, many different kinds of intervention.

**00:27:12**

TJ Thank you, Dr Ryan. We will go now to the next question. That's Elizabetha Izakova from RIA Novosti. Eliza, you have the floor.

EL Yes, hi. I have one question and one small remark. First the question; do you have any additional information about the new Iota variant that was found in the United States? How worried are you that this variant of interest may soon become a variant of concern and is it true that this variant is more contagious and more dangerous than the delta variant?

The second small remark is the question; do you have any updates, information about the Sputnik vaccine? Because the latest update that we can see on the website is from 15<sup>th</sup> July so maybe you have some more information about the documents and the data of the decision on Sputnik. Thank you.

TJ Thank you, Eliza. Maybe Dr Van Kerkhove can start on the variants and maybe Dr Simao can add on the vaccine.

MK Thanks, Tarik. Thanks for the question. On the first part of your question on the Iota variant - this is the B1526 - this is a variant that has been classified by WHO as a variant of interest. The first documented samples we have of this variant of interest

come from the United States in November 2020 and we designated this as a variant of interest in March 2021.

**00:28:51**

There are about 28,000 full genome sequences on GISAID of this lota variant. More than 27,000 of those are actually from the United States. There's some very good research that's underway on this variant. There's some preliminary data from New York that found that the lota variant did not lead to more severe disease and it was not associated with an increased risk of breakthrough or reinfection so that's some preliminary data that came out there.

I think what is important as we look at these variants is we look at the circulation of them. Our understanding of the circulation of the lota variant is that the prevalence of lota in the United States, where much of the variant has been detected, is actually decreasing and the variant Delta is actually increasing and so the Delta variant seems to outcompete the lota variant in terms of circulation.

I think if we look globally more than 90% of the sequences that have been submitted to platform like GISAID have actually been of the delta variant. So of the variants that we are monitoring - and as I mentioned previously there are many - we take all of these very seriously. Currently the lota variant is a variant of interest.

**00:30:08**

We are actively monitoring this one, as we are all of the other variants of interest and concern, to look at the data that's coming out but as we understand the Delta variant seems to be outcompeting the lota variant.

MS Thank you and apologies because actually that list that you saw on the website that says 15<sup>th</sup> July is actually up-to-date and it's updated every week so it's the wrong date. But let me say that the Sputnik process is still ongoing. We have some legal procedures underway at the moment and we don't have a date to finalise the assessment.

But I do have good news because we have started the assessment of Bharat which is a co-vaccine in July and it's very advanced. We expect that we may have news about the final assessment in the beginning or middle of September.

**00:31:06**

We also have five other vaccine candidates that are beginning the assessment; three now in August, Sinopharm from YIBP, which is Sinopharm in Wuhan - we already did the listing for Sinopharm in Beijing - Cancino and SII Novovax, the Serum Institute of India's version of Novovax.

For September we are expecting to have the Sanofi Pasteur and the Novovax; the main dossier starting the rolling submissions. So there are many vaccines in the final stages of the pipeline so that's good. Thank you.

TJ Thank you very much. If we could just limit questions to only one so we can take as many as possible because we have a long list of journalists online. We will now go to Miguel [Unclear] from El Pais. I understand that Miguel can ask his question in Spanish. Miguel, you need to unmute yourself.

TR Can you hear me now?

Interpreter speaks; the sound is far too choppy to interpret.

Apologies; we can't interpret this.

TJ Miguel, unfortunately you are broken; we can't hear the question so we may come back to you in a second. Let's go to Gabriela Sotomayor from Procesa, from Mexico. Gabriela.

**00:33:09**

GA Hola. Nice to see you again and I wonder when we can attend press conferences in person as before. I just heard it is one question per person but I wish to ask two. Okay. My first question; the case of Tanzania is very surprising for me with 1,367 cases and 50 deaths so far.

I read that every Sunday a large number of people take a medicine against malaria as part of their habits to avoid that disease so I wonder if the medicine has something to do with the low number of COVID cases.

If I can ask a second question on Mexico, Mexico is increasing in cases of the Delta variant. About 22% of the population has completed doses of the vaccine so what can be done to avoid scenarios such as those in Brazil or India? 40% of the population has had one dose. That's my question. Thank you so much.

TJ Thank you, Gabriela. We also hope to see all of you soon. Maybe Maria can start.

**00:34:35**

MK I will start and I'll choose to answer your second question around Mexico. Gabriela, I would just like to say, I hope we get to see you again in the near future as well as the other Geneva-based journalists.

With regard to Mexico, I think you'll know what my answer will be in terms of a comprehensive approach that Mexico is taking and that Mexico needs to consistently continue to be vigilant against... So the vaccine coverage is increasing, as you've pointed out; many have two doses, some only have one.

So increasing the coverage of vaccination and the full course of vaccination will certainly help in terms of reducing severe disease and death and will likely have an impact on transmission as more of the population becomes vaccinated.

But of course it's vaccines and all of the other measures as well, not just vaccines only so continuing to make sure that there is strong, robust surveillance, that there's good testing and that testing, those results come back quickly and lead to action.

So we've seen across the country, there have been different peaks. Those peaks have been driven down and it certainly can be done again, especially in the context of the additional tool of vaccines and vaccination.

**00:35:57**

So it's staying the course; it's really making sure that there are consistent approaches, that the use of these interventions is tailored and targeted, time-bound to where they are most needed across the country, making sure that the population is well-engaged and they know what to do.

We need everyone on the planet to really understand how they can play a role, positively or negatively. I think part of the Director-General's message today about all of us being in this together but we're not really acting as if we're all in this together is true around the world and I think it's really important that from WHO it's very clear that we want everyone to play a part in these control efforts and they can.

Individual-level measures of continuing to wear your mask, avoiding crowded space, spending more time outdoors than indoors, washing your hands, getting the vaccine when the vaccine is offered.

**00:36:55**

There are many people around the world who do not have access to the vaccine who have not been offered so when it is your turn please take that turn and continue to have that, make sure you have the full dose. But it's about doing it all and making sure that we stay vigilant. Thanks.

TJ Thank you. Would someone like to maybe try to answer the first question on the malaria drug that is being used in certain countries?

AR Yes, I want to reiterate what we said just now, that we have an independent expert group that helps WHO to review the evidence of all the emerging drugs and treatments that are available and as they become promising based on the data then we consider them for the therapeutics trial, the Solidarity PLUS.

In addition WHO has another independent group of experts that routinely review the evidence on drugs for which there is information from phase-three clinical trials and beyond. This independent committee also helps WHO to formulate the guidelines that will be used to improve or to adjust the current clinical management of patients with COVID.

So any drug that is being tested or used through a clinical trial or through an observational deployment in a country is of interest to us. We always review the evidence and as the evidence helps us make conclusions and our experts give us recommendations we take them up. Thank you.

**00:38:30**

TJ Thank you. Dr Ryan would like to add. Dr Ryan.

MR Yes, just to follow up on Ana Maria's point, which was very well made. In science very often we make observations, we observe that certain things happen; clinicians or doctors observe that a certain drug has a certain effect; communities notice when something may be working at community level.

But they're observations and they're full of biases because we have many biases that drive how we look at data. That's why it's so important that when we get these positive observations we do the trials necessary to take all the biases out.

For example in the case of a community taking a certain drug that drug may be effective or not effective but it may also reflect the fact that a community is more vigilant because it's more committed to disease control. They may be physically distancing more. People may be more careful, they may be washing their hand. They may be a community that has a higher level of

commitment to controlling the disease; it may not be a drug that's reducing the incidence of disease but many other factors.

**00:39:31**

That's what good clinical trials will do; they will standardise all of those factors and then come up with answers that tell you exactly what a particular drug is doing within a particular patient population. Again we need these clinical platforms to be able to do these kind of large-scale trials across a range of countries so that this type of research is not just being done in one place in the north but it's spread around the world, that everyone is contributing to the research and everybody is benefiting from the outcomes of that research.

The Director-General, Dr Tedros, has said this for a year-and-a-half now; this is about science, solidarity and solutions. We need both; we need the science, we need the solidarity. That will drive the development of solutions.

It is always positive to hear positive news for communities or doctors or when people have observations because the essence of progress is to observe something changing and test whether that's actually happening and that is at the core of what we're trying to do as scientists around the world.

**00:40:28**

TJ Thank you, Dr Ryan, Dr Restrepo and Dr Van Kerkhove. Let's move to our next question; Sara Newey from the Telegraph. Sara.

SA Hi, thank you very much. I'm sure you've seen, there's lots of discussion ongoing in the UK at least at the moment about whether herd immunity is now unachievable because vaccines don't appear to halt transmission as much as hoped. I wondered what you think of this and how this might affect the trajectory of the pandemic; how big a problem would this be? Thank you.

TJ Thank you. Kate O'Brien, if you are online; Dr O'Brien, can you take this question?

KOB Yes, thanks for the really important question, one that countries around the world are asking and one that at WHO we're looking at very carefully and monitoring the evidence around this.

**00:41:31**

The issue of herd immunity is an important one. It's really the observation and the effect of added protection beyond that that

you would expect simply attributable to the number of people or the proportion of people who have been immunised in the population.

So it's that added impact of a vaccine programme because the people who are not immune because they haven't been able to be vaccinated are embedded among and within groups of people who already have been vaccinated so it makes it really hard for a virus or pathogen to move from one person to another and those people who aren't protected directly are nevertheless at reduced risk of disease.

There's no magic number at which the proportion of the population which needs to be vaccinated - there's no specific number that needs to be achieved. It really is related to how transmissible the virus is so we know for measles viruses for example, which are highly transmissible, that we need an enormous fraction of the population to be immune or to be vaccinated and immune through that mechanism in order to achieve that protection of the unvaccinated or non-immune people, somewhere around 95% of the population.

### **00:42:55**

What's been happening with coronavirus, SARS-CoV-2 virus is that as the variants are emerging and are more transmissible it does mean that a higher fraction of people need to be vaccinated in order to likely achieve some level of herd immunity.

This is an area of scientific uncertainty, it's an area we're watching really carefully. The studies to evaluate the magnitude by which the vaccines are preventing transmission and not just disease are really important studies. They're difficult studies to do and we need those studies variant by variant and we need them vaccine by vaccine.

So I think the general wisdom and the general assessment is that as the SARS-CoV-2 variants are increasingly transmissible and as they're emerging and transmitting around the world a greater fraction of the population needs to be vaccinated in order to effect some degree of herd immunity.

So the most important thing at this point is to get on with the vaccine programmes at the highest degree of equitable distribution possible because the primary target is to prevent serious disease, hospitalisation and death. That's the primary objective of these vaccines and we have a panel of vaccines that are really, really effective at doing that.

## 00:44:30

It is the equitable distribution so that those kinds of serious outcomes of infection are prevented in every country around the world even as we continue to pursue ever greater coverage with vaccines to try to reduce the transmission.

But we don't have vaccines that are highly effective at reducing transmission and so this interplay between the viruses, their evolution and the vaccines is going to continue to play out and we really have to focus on that severe disease spectrum end along with assuring that we are not taking our foot off the pedal of the other interventions that work to reduce transmission; masking, hand washing, distancing, not being in large gatherings of people.

All of those things - it's vaccines and those things - are going to address the transmission while vaccination coverage increases and we will find out to what magnitude coverage needs to be in order to try to get to some level of herd immunity.

TJ Thank you, Dr O'Brien. Obviously our guests, Minister Sarkkinen, Minister Samba Sow and Mr Marco Medina are welcome to add to any of the questions their thoughts; just make sure that you let us know and we will put you online.

## 00:46:05

Next question is from Kai Kupferschmidt from Science. Kai.

KA Hi, Tarik. Thanks and congrats on restarting Solidarity. I just wanted to ask for a few more details. Can you give an idea - Finland was the first country to start - how many countries already have the drugs in place and all the necessary approvals; basically how fast do you expect it to ramp up?

The other brief thing is, I understand that Finland isn't testing Artesunate and I'm wondering how many other countries are not doing that. Is that just Finland or are there several countries?

AR Kai, thank you very much for your question. These are two important questions. Number one, the trial, which is a platform trial as we have discussed, involves countries and hospitals in many cities all around the world. It is organised as an adaptive design trial. It is adaptive also in the choice of the treatments so if the treatments are not approved by the regulatory authority of the given country to be included in the trial or at the point in time during the randomisation they are not available in a given hospital the platform we use allows the clinicians to proceed with

the randomisation and it continues to be a randomised trial with strong evidence being generated. That's the first thing.

**00:47:40**

The second is that we have, as Dr Tedros mentioned, 52 countries in the trial. The process of approval, regulatory and ethical changed from country to country. In the middle of the pandemic many countries have accelerated their processes but still there are differences. Some of the countries have already obtained the approvals and as they obtain the approvals including the import permits for the admission of the therapeutics into their country we'll proceed with the shipment.

My colleague, Dr Marie-Pierre Preziosi, will provide some additional specific numbers. Thank you.

MP Yes. Thank you very much for your interest. Just to confirm that with 52 countries, as you can imagine, we cannot have all 52 starting at once. However we can today say with confidence that half of them have already obtained all the ethical and regulatory approvals but we need more because as a global sponsor we need to have all the evidence of all the submissions, we need to go through all the details, the training to make sure that they all implement the trial correctly and according to protocol and to support them in their preparations.

**00:48:57**

To be a little bit more specific we have at least ten to 15 countries for which the drugs have been shipped and a shipment already today. The last point about selecting the drugs; almost all countries are going for the three drugs. We have a few exceptions here and there because some regulators have made the judgment that they would not like to approve one or the other drug to be included but this is very rare so we don't anticipate that this will be the rule. Thank you.

AR Can I add? I just want to add to the question on the speech of enrolment; that this time, as we say, we have 16 more countries and nearly 200 more hospitals in the trial. We are very, very grateful to the researchers in all these countries. This will allow us to have an even wider capacity to recruit patients with COVID if they consent to participate in the trial.

So if anything we are hopeful that the recruitment rates will be higher, much higher than in the initial phase because unfortunately COVID is still a very common disease in many parts of the world. Thank you.

**00:50:17**

TJ Thank you very much, Dr Preziosi and Dr Restrepo. We will now move to Helen Branswell from Stat. Helen.

HE Hi.

TJ Hi, Helen.

HE Hi. Thanks very much, Tarik. At the beginning of the press conference the Director-General was mentioning the Marburg outbreak and talked about the R&D blueprint. I'm wondering; of the various candidate Marburg vaccines is there any for which there are enough human-grade supplies that they could be put into use in a clinical trial if the need arises? Thank you.

AR As Dr Ryan mentioned, we are very aware of the importance of being prepared and planning in advance so with Dr Preziosi and the other colleagues in the R&D blueprint we have developed over the years what we call research and development roadmaps for each of the priority decisions of the R&D blueprint including Marburg.

As part of this work we have identified some candidate vaccines that are under development. Specifically we know that there is one candidate vaccine that has good data in the preclinical phase, meaning when it's tested in animals and this phase is very important because it provides the developers with information on whether or not the vaccine actually induces an immune response, protects the animals and is safe.

**00:51:59**

Following that this vaccine also has information on safety in humans and some initial very good results on immunogenicity. There are other candidates so as we speak we are actively engaged with the developers, we are discussing the possibility of testing these vaccines in the field in this rare outbreak of Marburg.

We are committed, as we have done work for other emerging infectious diseases, to try to accelerate the evaluation of any life-saving vaccines and treatments.

TJ Thank you, Dr Restrepo. Dr Ryan, would you like to add something? No.

MR No, I think Dr... For me that work is very important but also the fact that these diseases are getting picked up quickly in the field; a single case. We're not talking about a major cluster of disease. A lot of deployment of surveillance, contact tracing,

follow-up, identifying people at risk, shoring up and improving infection prevention and control.

### **00:53:07**

Marburg is a disease that has been known to transmit in labs, to transmit in hospital environments in particular so it's really important that the work on the ground contains the disease and the DG said that; that's what we're doing, the same basic stuff; surveillance, case finding, contact tracing, following up contacts, ensuring the people who get sick are rapidly isolated and given the appropriate standard of care and level of care.

Even without specific therapeutics or vaccines we can save a lot of lives with a high standard of clinical care. It's really important, as Ana Maria said previously, that people come forward for that care. So there's a lot of work on the ground in responding. The authorities in Guinea [unclear] have obviously the 2014 experience and the recent experience of Ebola containment which they did very well.

Again we're getting better at, number one, picking up these disease, two, getting them reported into the system and, three, being able to initiate containment measures, usually driven by the national authorities on the ground reacting and investigating.

### **00:54:07**

If we link to that all of the R&D, research and development blueprint for epidemics work around the world with all our partners we can connect both those global solutions with those local capacities and that's the trick.

The trick is to recognise that we need local infrastructure, local workforce, astute, well-trained clinicians and nurses who notice when something is wrong, when they have an unusual case or a cluster of disease and they know what to do, they can take a sample, get that sample tested.

These samples were tested in Guinea, then confirmed at a reference lab in Senegal. These samples didn't have to come to Europe or North America because the capacity now exists in Africa to do this work; really high-quality work.

Samba Sow is on. Samba and other people have been instrumental in developing these capacities in Africa so we really have to build that infrastructure, the human infrastructure and the physical infrastructure and then we need to connect that infrastructure and those people with global solutions, global research, global innovation. The two together give us the answer.

**00:55:17**

SF Thank you, Mike, Ana Maria. I really need to congratulate the team in Guinea and in Guekedou because you may recall that a few years ago we had to send a sample to Atlanta or Lyon to confirm Ebola or other diseases. This time it was confirmed in Guekedou thanks to the investment we have done in preparedness.

It's true that it is the first Marburg outbreak in West Africa but in our risk assessment of high-threat pathogens we have identified more than 20 countries in Africa where transmission of Marburg virus disease can happen. Also before Guinea we have only had five countries which reported real outbreaks so we need to do more in terms of investing in local [unclear], as said by Mike, not only for Marburg but also research and development for other so-called viral emerging diseases like Lassa because Lassa is very prevalent in West Africa and many other African countries; Crimean-Congo virus diseases; Rift Valley fever and so on.

That's why this investment in research and development is critical and with more investment done during COVID-19 we expect to use this momentum to be more ready and protect more people from these high-threat pathogens. Thanks.

**00:56:38**

TJ Thank you, Dr Soce Fall. We have time for one or two more questions before we ask our guests to give their final words, as well as Dr Tedros. Let's go to Sophie Mkwena from South Africa Broadcast Corporation. Sophie, the floor is yours.

SO Thank you so much. My question revolves around the issue of stigma. As we see more countries administering the vaccine, particularly in the sub-Saharan region, there's now a growing trend where those who are vaccinated are not comfortable to interact with those who are not vaccinated.

We had this problem during HIV and AIDS where people who were positive were being stigmatised. What is the position of the World Health Organization? Because we have the similar reaction in other regions of the world.

TJ Thank you, Sophie. Maybe Bruce can start and Maria can add as well. Bruce, would you like to take this one?

**00:57:57**

BA Sure. Thank you very much for the question, Sophie, and thank you, Tarik. I think one of the most important things refers

back to a theme that the Director-General and Mike have spoken to repeatedly and that is the issue of solidarity in the response to COVID-19.

We're in this, as we said, together; whether people are vaccinated or unvaccinated we need to make sure we're putting in place the same measures to protect the entire population; the same social distancing where appropriate, the same masking where appropriate, etc.

But the goal is with vaccination that we can eventually get to the point of reopening societies, reopening economies and in any situation there's always going to be a mix of vaccinated and unvaccinated. The goal of course is to get as much of the population vaccinated as possible but again we would really want to minimise and avoid any stigmatisation whatsoever of people, whether vaccinated or unvaccinated because it will simply be one more barrier to the solidarity that's going to be key to how we operate our societies, how we operate within the health profession to get out of this crisis.

TJ Thank you, Dr Aylward. We will now ask our special guests for some final remarks and we will start with Minister Sarkkinen, Minister of Social Affairs and Health for Finland. Minister, please; the floor is yours.

**00:59:37**

HS Thank you very much. I would just like to add that an important aspect in Solidarity PLUS is that it is simple to participate in for the hospitals, doctors and teams and that it doesn't create much extra work in the treatment of patients. I think this is an important aspect of the Solidarity PLUS and also key that we have been able to make it so popular in the biggest hospitals and in Finnish healthcare.

But in the end I just want to thank the World Health Organization for its leadership in the COVID-19 response and creating this very important platform for global co-operation and solidarity. Thank you very much.

TJ Thank you very much, Minister, for your participation in today's event and for your work on the Solidarity PLUS trial. Mr Samba Sow, Director of the Centre for Vaccine Development in Mali and National Principal Investigator for the Solidarity PLUS trial, you have the floor for some final remarks.

**01:01:05**

SS Thank you very much. I would like to thank the WHO for organising this important press conference and I would like to also thank the speakers starting with the DG for inviting me and thanks to the Minister and to Professor Marco and to all of the speakers.

This is a very, very important way to deal, to go with this pandemic. As the DG used to say almost two years ago, no-one can do this alone. This is global; we have to go together and this is one of the great examples that WHO is showing here, involving places...

As Dr Soce said, two years ago I shipped the first Ebola samples with Dr Soce himself when he was WHO rep in Bamako, Mali; we shipped together the first two samples to Atlanta. But today I can test that in my own lab; today we can test COVID in my own lab. This is what we need and this is Africa; this is the world so let's continue fighting together, let's continue to go together, walk together for each of the continents and all of the continents.

I thank you very much again for having us and I will repeat my last sentence; the truth is that in the global fight against infectious diseases a country, even a continent can never succeed alone. We will only triumph if we stand and work together and this also used to be said by the DG somehow at the very beginning.

**01:02:55**

Thank you very much for having us. There was one question; vaccine stigma. I would like just to say, it depends on the community where you are, on the country where you are. Sometimes if you feel that you are vaccinated you have more privileged compared to the non-vaccinated.

Sometimes if you are vaccinated you can be rejected for that so it depends on where you are and we need to work together. It's a great problem and we need to work together and we need communication to solve that. Thank you very much.

TJ Thank you very much, Professor Sow, for this very important message and for all your work over the years working with WHO. Now we go to Professor Marco Medina from Honduras for his last thoughts. Professor Medina.

**01:03:49**

MM Thank you very much. We are very proud to collaborate in this important effort on Solidarity. I think the team working on this subject has been very effective; for instance the work of Ana

Maria as well as the experts such as Professor Pito or Professor Miranda in Latin America.

I think this kind of project can be the first step for other projects that we can establish to deal initially with COVID which is at this moment the most important problem around the world but in the future we can work together, evaluating problems that are important for the world.

I think the strategy and the technical aspects plus the teamwork have been quite important and improving the local research-building capacity. At this moment we are working on the next step and the Ministry of Health has been quite interested to promote this project as well as my university.

I think one of the issues that we need to evaluate is to have constant feedback to our countries, mainly sending a public message about the progress that the WHO is making. COVAX, in my opinion, has been a crucial project as well and I would like just to answer one of the questions that I had about the vaccines.

Actually because of the support from COVAX we got a lot of vaccines, mainly AstraZeneca, Pfizer and Moderna but we need to work against fake news and with PAHO and our university we are planning to evaluate the impact in our population of fake news that can affect treatment and vaccination. I think that is an important issue that we need to evaluate.

### **01:06:33**

Finally I would like to thank the leadership of Dr Tedros and his WHO team. I know very well the strong work you are doing there with few people working but together with the people around the world we can make it a great success against this problem, this major pandemic that is affecting our world. Thank you very much.

TJ Many thanks, Professor Medina, and to all our guest online, special guests, WHO colleagues and WHO colleagues here in the room. As always we will send an audio file from this press briefing as well as some video material later in the evening and the transcript will be posted tomorrow.

Just a quick word to Mihela Ahel from El Pais; we received your question in writing so we will try to answer that. Sorry for the bad communication. With this I will hand to Dr Tedros for his final words.

### **01:07:45**

TAG Thank you. Thank you, Tarik. I concur with our guests' closing statements so I don't have anything to add except to thank our guests for joining us today. Thank you to Minister Hanna Sarkkinen, thank you to Professor Samba Sow and also thank you to Professor Marco Medina.

Thank you so much and the way out of this pandemic is, as you have all stressed, working together so thank you so much again and thank you also to our media colleagues for joining us today. I look forward to having you in our upcoming presser. Thank you.

**01:08:37**