

COVID-19

Live Q&A 11 May 2022

Speaker key:

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AK Hello. Good evening, good afternoon, and good morning to everyone joining our weekly COVID-19 Live Q&A with Dr Mike Ryan and Dr Maria Van Kerkhove. If you are watching us on Facebook, LinkedIn or YouTube, please send us your questions via the comments section. If you're watching us on Twitter, please use the hashtag #AskWHO, as usual.

Mike, Maria, good afternoon. Thank you for your time. You've been both on different missions in the past week as WHO is responding to multiple crises, not only to COVID-19 but also the war in Ukraine and other humanitarian crises. So, maybe, Mike, we can start with reflecting on your trip to Ukraine with Dr Tedros and the situation there.

MR It is good to be back. It was a difficult mission and many of you will have heard Dr Tedros speak about his own personal reflections in terms of his own experience of war and the memories that that brought back. I've been in so many different conflict situations and so many different epidemics that sometimes you become, I wouldn't say immune, but it becomes part of your job.

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Then, we've been in a sense closed here in Geneva for a year or two and unable to travel very much and then you go back and within a few hours of Geneva you're in a situation where you're meeting women and kids in hospitals in Poland who have been in Mariupol, in basements. Kids asking their mums whether the thunder is going to stop soon and whether they can go home. I think one of the kids we met thought we were coming to take her home.

So, you see those personal stories and it is one thing to see the statistics, it's another thing to see the images on TV. But as, Dr Tedros reflected on, it's the sights, and it's the sounds, and it's the smells of war, and many of us have that experience. It's harrowing to see it but it's also inspiring to see how the health workers of Ukraine have responded despite so many attacks on healthcare facilities, despite the extra demands of refugees in surrounding countries, how the health communities in the surrounding countries have rallied.

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I was asking some of the doctors and nurses in Poland, are you doing extra hours? Yes. Are you doing extra shifts? Yes. Do you have enough staff? No. How do you feel about all this? And they said, fantastic. This is what we should be here for. They're not looking for extra resources. They're not looking for anything extra.

Then, you see the displaced people in Ukraine, and there's over seven million people displaced inside Ukraine and many of them are families and very often have more vulnerable people with them, so they can't get to the border, older people, people with mental health conditions, with disabilities, pregnant women and others.

They've been taken in all over Ukraine as well, and there's extra strain on the health systems in those parts of the country. Then, you have the people living in the frontlines and we visited a number of different suburban towns around Kyiv that have been the subject of real intense fighting and you can see the impact on beautiful streets that maybe ten, 12, 14 weeks ago were coffee shops and pharmacies and just completely gone.

Yet, you see that resilience of the workers. We spoke to ambulance workers and we could see that the ambulances were just riddled with bullet holes and they were so proud and so happy, and they had plastic sheeting over where the bullets had gone through and they were still out there doing their work.

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It is both a reflection on just how awful it has been for the people but just how resilient the health system has been and, more importantly, the health workers, and it really convinces me more and more that a health system is not the buildings, a health system is not the strategic plan, the health system is the people who work within it and their passion and compassion for their own communities, and we have to continue to support those health workers.

It doesn't matter what conflict you're in. Health workers make a huge difference. You know Dr Tedros' theme for the World Health Assembly in a couple of weeks' time is going to be Health for Peace, and Peace for Health and you can really see how health and healthcare delivery is the foundation of stability, is the foundation of peace.

Also a big shout out to our country team there, Jarno Habicht and his team. So many of our staff have lost so much. We had a meal one evening with staff members and staff members had lost houses, they had lost everything. One staff member from Mariupol had lost everything and was still working to support clinical care in different parts of the country. So, our staff have been

equally resilient in support of the Ministry of Health and the people of Ukraine and we're really, I think, bursting with pride for their commitment and their solidarity with the people of Ukraine.

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We have a wonderful supply system now and we visited our warehouses. We handed over ambulances, all-terrain ambulances that can operate in very difficult conditions, to the ministry. We have specialist medical supplies but now have rehabilitation equipment coming in as well and not just surgical equipment, so equipment that will be used for rehabilitating people with traumatic wounds, amputations and other things.

A big focus at the moment on mental health. A lot of evacuations of people with serious mental health conditions. A lot of focus, even already, on recovery and how we're going to be able to rebuild the system. Can we build that system back better? We're talking about building back better after COVID. That's going to be a huge challenge.

We have to both continue to respond to this ongoing health crisis and, at the same time, think how we're going to help rebuild that system. In the middle of all of that we have COVID and it's not gone away in the world and it's not gone away in Ukraine. It's very hard to know exactly what's happening in Ukraine on COVID because testing has dropped but people are still being admitted to hospital.

There are still issues with oxygen supply but again we've a lot of oxygen plants or PSA plants that are being constructed and coming online. We've provided a lot of very, very powerful generators to hospitals to keep them running off the grid. We're trying to shore up the system so we can make sure that the doctors and nurses running intensive care units have access to the power, the electricity, to the oxygen that they need to continue to treat patients.

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I think, lastly, one of the things we're doing, and again thanks to the European Union countries surrounding, is managing and being a control tower for a lot of complicated medical cases, surgical cases who need to go to other countries for continued care. So, we're trying to do the medical triage in the field, connect with the medical services in Ukraine, and then connect those individuals with the European services and move those people.

Moving an individual with big needs medically is very different to moving a normal refugee. These people can't walk down the road. They can't run across the border. They need to be cared for all the way from when they're assessed, right through to when they reach a hospital in Europe that could be 2,000-3,000 kilometres away. Again, we're assisting with managing that process.

WHO is really engaged in every aspect of healthcare, healthcare delivery and crisis response, planning for recovery. We have a fantastic team of people, brilliant partners, 86 organisational partners in the health cluster. The health cluster is the way we organise health specialist agencies in a crisis. WHO very often acts as a coordinator amongst the international community. We have over 40 emergency medical teams in-country. In fact, I met yesterday with the

strategic advisory group for our EMTs here, in Geneva, and the energy they have to continue their work in Ukraine and around the world is incredible.

Sorry, I'm probably going on with this answer but I think it's important that when we think about global threats and we think about everything in the world that's happening, you have to focus in on those individual people, individual villages, individual families who have been displaced, disrupted, have had their lives destroyed and what we can do to support them.

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It doesn't matter where people are in the world, that's our job. It's increasingly hard to do in a very fragmented world, very hard to solve the problems we're expected to solve. I think we have 53 graded emergencies in our system, emergencies that require a response by WHO around the world right now, and that's not COVID, that's other stuff.

The world is becoming a very fragmented place and on the one hand that fills me with a sense of pessimism but on the other hand I see the innovation and I see the passion and I see the humanitarian spirit being shown at all levels. In some sense, we're in a battle for this planet. Those who would destroy it, those who would destroy our peace, those who would destroy our rights and those of us who want to build peace and build prosperity and build tolerance and build a society and a planet that we can all inhabit with respect to others. I think we really are in that existential sort of situation right now and I think Ukraine illustrates that more than any other place on the planet.

AK Thanks so much, Mike, for bringing us closer to the field and what our colleagues are doing and health workers and also resilience of communities. It's definitely different when you see it first-hand and seeing it on TV and also having experiences brings different memories or triggers different memories for people. Maria, you've been on the other side of the world and your mission is connected to the COVID-19 response, I believe. Maybe you can tell you us what was your mission about.

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MK My mission was a bit different. I spent several days in Brazil last week and I was there working with our incredible country office and the WHO representative, Dr Socorro Gross Galiano. They organised a mission for me to really see what Brazil has done and how our regional office of PAHO, Pan American Health Organization, and our WHO country office staff have been supporting the people of Brazil in COVID-19, what they've done and how they are adapting to the current situation and how they are going to use the systems that have been built to get through COVID, but also for the future.

I spent some time in Brasília, where they organised a meeting of all 27 labs across the entire country from all states of Brazil, from border areas where they demonstrated how they've expanded their surveillance capacities for COVID-19, their sequencing capacities, which is beneficial to be able to track this virus, to detect the variants.

If you remember, Brazil had a very substantial Gamma wave. Gamma was one of the variants of concern that was first identified because the P.1 variant was first identified in Brazil. So, they demonstrated how they've expended their

surveillance systems, their testing systems, their sequencing capacities all over the country and how that is going to be maintained and sustained into the future. It was very motivational. It was very informative. It was quite invigorating to see that and I was really honoured that they pulled that together.

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I also spend some time in Rio. I gave a presentation at the Brazilian Academy of Sciences, which was actually the main reason why I went there and presented WHO's vision of how we're going to end the emergency, how we're going to end this emergency everywhere on the planet of COVID-19, and spent the day at Fiocruz visiting labs, visiting hospitals, seeing the technical work of that organisation, which is more than 100 years old, use science and technology and tools to combat COVID-19, as well as other infectious threats within Brazil and internationally.

Lastly, I visited Brasília in the Amazonas state where, if you remember, in that Gamma wave, they had a tremendous number of cases and deaths. Everyone that we met there was impacted by this virus. Everyone that we met had lost a family member, had lost a husband or a wife, or a mother or a father, or a sister or a brother, and it was quite emotional.

We went to hospitals. We went to post-COVID rehab centres. In fact, I visited three post-COVID-19 condition rehab centres in Rio and in Manaus and just talked to doctors and nurses and lab technicians, patients and survivors. It was really quite inspirational for me to see that. When I left Manaus, it was important for me to go there to see first-hand how the Amazonas state had dealt with their terrible experience with COVID-19. Everyone was talking about legacy. What are we doing for COVID-19 and leaving a legacy behind?

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There was all this discussion about systems in place, for surveillance systems and structures, new hospitals that didn't exist before, new labs that didn't exist before. Not only are the people that we met, they're leaving a legacy of systems and structure, they're really leaving a legacy of a spirit and a resilience. Just as Mike talked about the health workers in Ukraine, we're seeing that resilience in health workers all over the world and I saw that first-hand in Brazil, and it was really moving to me.

I met a survivor who lost his wife after 43 years of marriage and he was explaining how he thought his life was over. But with one of these community centres, these post-COVID-19 community centres, it was Respirar, and it means to breathe. And he said that community centre brought him back to life and he goes there every day.

The people of Manaus, the people that have gone through such terrible times, I think inspired the world and I reflected on the fact. I'm not sure, Aleks, if you saw an image. There was an image that sticks with me today where there is a patient in an ICU bed and health workers in Brazil, they filled up a glove, a medical glove with warm water, warm saline, and they put it in the hand of a patient who was not awake but to replicate holding someone's hand because their loved ones couldn't be with them.

There's all of these types of moving stories around the world and I think, for me, it was really important to get out of Geneva, to talk to our teams, who I was also so impressed with, our teams from PAHO and the from the country office doing really incredible work.

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It was a really excellent visit to see that first-hand and I think the challenge for all of us is how do we maintain these systems that have been enhanced for COVID-19? How do we keep it up for this particular pathogen, so that we can end this emergency everywhere? Then, how do we use the situation that we've gone through in the last couple of years for COVID, to end the emergency everywhere but build better for the future?

There's a lot of discussion around that. So, quite a different visit than what Mike and Dr Tedros had but that resilience, that spirit, that inspiration I think was present there as well. So, it was really a wonderful visit and I thank our teams in PAHO and in the country office for organising that. If you want more info, the teams made a couple of videos for me and they're on my Twitter feed. It was just an amazing capture of so many different visits.

AK Thank you, Maria. I'm glad you also had experienced this opportunity to finally meet some of the experts and colleagues on the ground. As Mike mentioned, we were all stuck here in a way because of the pandemic.

You both mentioned resilience of health workers and different ideas or ways how they are responding to different crises. Tomorrow is Nurses Day, International Day of Nurses, and one our viewers said it is still Nurses Week. Somewhere in the world it is celebrated as Nurses Week. So, I think this is also a great moment to pay tribute again to all those brave health workers around the world who are supporting and helping us when we need them the most with long hours, long shifts, double shifts. Also Barbara, who is watching us, has mentioned those also who lost their lives serving us.

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MK We need to be thanking our frontline workers, our health workers, our nurses every single day. They are the heroes of this and continue to be. I think we've heard some stories where health workers are not being respected. We've perhaps forgotten the sacrifices that they have all made.

I think every day needs to be Nurses Day. Every day needs to pay tribute to our frontline workers. So, if you have an opportunity, those of you who are watching, thank somebody today and try to remember to do that more often. I don't think we thank them enough.

AK Thanks, Maria. We have received a question, is COVID still circulating around? Yes, it is but I think maybe this is a moment, Maria, for your regular epidemiological update. Do we have hotspots still somewhere in the world?

MK We do, yes. This virus is circulating and it is still circulating at an intense level. It is not in the news in the much as it has been previously because there are so many conflicts and challenges out there that are filling up the news and of course we need to make sure we pay attention to that but we also can't take our eye off the ball of this virus. Professionals like us and professionals all over the world are keeping a close eye on this.

We are seeing circulation. Last week, we had about 3.5 million cases reported in the last seven days and over 12,000 deaths. That's still far too high a number, given that we have tools that can save people's lives. So, while we do see a general decline in cases and deaths, with cases we are not as confident in terms of our understanding of the circulation because there's been a significant drop in testing and significant changes in testing policies around the world. But, still, with 3.5 million reported cases, that's quite a high volume of just reported and we know that's an underestimate.

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We see increases in cases being reported across the Americas, across Africa, in the Western Pacific, so that's three regions. And, in fact, when we last look, I think as of a few hours ago, cases were increasing I think in more than 70 countries right now. That's quite a lot, so in all WHO regions but, in particular, the highest increase we saw was in the Americas and in Africa. With regards to deaths, we saw an increase in deaths in Africa, in the Americas as well.

So, it isn't over and what we are worried about with such intense circulation, we are very worried about future emergence of variants. The virus continues to evolve. The more the virus circulates, the more opportunities it has to change. Omicron, which is the latest variant of concern, has many, many sublineages that we are tracking.

We'll talk a little bit more about them later, I think, but many sublineages. So, the virus continues to evolve and each new variant is more transmissible than the last. The big question is what will the next variant be in terms of severity and in terms of immune evasion, which will impact the effectiveness of our vaccines.

It is still happening, it's still out there, and so we need everybody out there to still continue to take measures to keep themselves safe, which is why vaccination is so important, but not just vaccines. I will say it again. It is vaccines and, not vaccines only.

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If you are in an area where there is intense circulation be careful. Keep your distance. Wear your mask. Keep your hands clean. Open the windows. Get vaccinated. Stay home if unwell. We do need to continue to be vigilant so that we can end this pandemic everywhere.

AK Thank you, Maria. Mike, we have a question from Dan KD Umar, who is asking what are key symptoms of COVID-19? I believe, as well, with this lack of testing, with many people being vaccinated, experiencing milder symptoms, that people are maybe not aware that COVID is still so much around. So, maybe it's worth reminding viewers what are the symptoms to pay attention to and to get tested when needed.

MR That's the challenge we face right now because the symptoms are very non-specific. For any upper or lower respiratory tract virus generally, people may feel no symptoms or have very mild symptoms or have very severe symptoms and those symptoms can range anything from many people just report feeling off, feeling fatigued, get a fever, have soreness, have muscle soreness, stiffness, sore throat, sniffles, runny nose, dry cough very often or a

productive cough. So, there is such a range of symptoms that people can have. Even in some cases people can have diarrhoea or they can have symptoms that don't seem related to what people understand as COVID.

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It is still very important, especially if you're a contact of a known case, that if you get sick, to get tested to make sure that you don't have COVID and pass it on to somebody else, but there are so many other viruses out there that can cause similar symptoms.

It is harder and harder to distinguish and especially in places that have got relatively low incidence of COVID right now. There are many other respiratory pathogens around. We see that here in Geneva. We see that even here in the office. But it is always good not to pass on any respiratory virus to others, so good hand hygiene and keeping physical distance, staying home from work if you can, if you're sick, all of those things still apply.

The one thing, and Maria outlined it, that we are worried about is that testing has dropped off and for someone who is fully vaccinated, who doesn't have any underlying conditions, you can understand why people might not go and tested anymore. Number one, testing isn't always easily available. In many countries you have to pay to get tested now.

There's a lot of barriers. There have been barriers since the very beginning in many developing countries to get tested, financial barriers, distance barriers. People would have travel to hours to get tested.

So, these barriers to testing have been there but they're even greater now. The difficulty with that for us is that we find it harder and harder to truly track the virus in terms of its trajectory and in terms of its intensity, and that's a big problem for us.

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But the symptoms are, as I said, quite non-specific. Many people who have had COVID will say it was like the time I had flu or the last time I had an upper respiratory tract infection, but for some people it is very, very serious infection and they can deteriorate very rapidly. Particularly, for people with underlying conditions, they can be relatively okay, sort of sick, and then breathing difficulties can develop very rapidly and then people need to be able to get to hospital, they need to get the intensive care and the supportive care that they need.

Increasingly, with the availability of antivirals, those people who do develop a severe infection within five days of the onset can access antivirals. These can be life-saving. The problem we have is these aren't available all over the world and, again, the same inequity we saw with vaccines is now beginning to reproduce itself with antivirals.

People in developing countries particularly or even within wealthy countries who don't have access to health services, who would benefit from an antiviral because they have an underlying condition, they're a high risk for developing severe respiratory or other systems, that they're not getting access to these antivirals is really a tragedy and a growing tragedy at this time.

So, we are concerned that the lack of testing leads to blindness in our system. The lack of availability of antivirals around the world creates another inequity. Then, within that, the number of individuals, and it's quite stunning when you look even within wealthy countries, the proportion of people who are not vaccinated.

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I was looking at some numbers in terms of people over 60 who are not vaccinated in different parts of the world and when you look at that it's quite stunning because if you look at Europe only 14% of people over 60 are not vaccinated but that goes up and up until you get to Africa where 74% of people over 60 are not vaccinated. If you look at even in the Americas, 28% of people over 60 have not had a full course of vaccination. In the Eastern Mediterranean region, 22%.

We have left significant numbers of people all over the world, not just in the South but in the North, who are not vaccinated against this disease and we know, we've learnt this together, unfortunately. The brutal lessons of COVID have been if you're over 60 or you have underlying conditions and you're exposed to the COVID virus, you are likely to have a difficult course.

What we've seen is that having a full course of COVID vaccines, while it may not fully protect you against being infected, it provides excellent protection against being hospitalised, being admitted to an intensive care unit or dying. And to think that we're so far into the pandemic with the tools we have available, that we're still failing to get the most important groups vaccinated, North and South, is truly a tragedy.

When we look at vaccination, only 54 countries have reached that 70% target that we set. 72 countries are somewhere in between 40% and 70%. They are on pathway towards 70%, that's good, but 68 countries are still under 40%. So, it's more than a third of our Member States still under that 40%.

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And if you look inside that 40% number of the eligible population, what is striking then, within that, is the proportion of people with vulnerable underlying conditions or in older age groups who are still not vaccinated. This, to me, is the biggest tragedy right now, is that we're not protecting those who need to be protected.

Then, when they do get sick, they don't have access to the antivirals, so there is a double-whammy in the process. That's a little bit of a worry. I know I've given a long answer to a question on symptoms but it triggers in me the idea that this hasn't gone away and there are still too many people on this planet who don't have the protection of vaccination who, when they develop those symptoms, for most of us now who are vaccinated, in developing those mild symptoms, that's what it stays, mild.

MK The phrasing of the question was some people just have a mild disease. This virus, the Omicron variant in some countries caused more deaths than in previous waves. This virus, even the latest variant of concern, Omicron, all of the sublineages can cause anything from no symptoms to death. That's a huge range.

Some people who may not have underlying conditions, who are vaccinated, may not experience severe disease. I was one of those individuals. I'm lucky enough to be vaccinated but I still had quite a painful cough, but I'm vaccinated and I'm healthy and I'm relatively young, I guess, I could say.

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MR You're younger than me.

MK I'm younger than Mike but I'm lucky because I'm vaccinated and this notion that this virus has now become mild is false and we need to correct that narrative. This virus is killing people. It's killing at least 12,000 people per week, people who don't need to die.

I don't quite understand how we've become numb to these numbers, that that is acceptable. It is not acceptable. It is not acceptable to the World Health Organization or for any of our partners, which is why we're working so hard on this.

This narrative that this virus is mild or is somehow becoming more mild, the experience of getting infected with this is less severe for those who are vaccinated but that is not the case for people who are not vaccinated, and that is why it is so critical we up these numbers of vaccination, turning vaccines into vaccination and targeting those who most a risk everywhere. Every single country, as Mike has just said, high-income, low-income, north, south, east, west, are missing vulnerable populations and that's what really needs to be addressed.

AK Thank you, Maria. You had a longer answer but you did respond to the question because we got a question about whether we reached the 70% target or not, but we haven't. Here is another interesting question coming from Monica Cardinale. Could you comment on the dropping of mask mandates on airplanes in Europe? Also, recently, I saw some comments on our social media posts that people were asking about our advice for travelling in the current context of the pandemic.

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MR We have been doing quite a bit of travelling.

MK We have been doing quite a bit of travelling and since the beginning of this we talk about taking a risk-based approach. The risk is still there. This virus is circulating. What has changed over the course of a couple of years now is the addition of different interventions around the world, the use of these vaccines, the use of masks, use of testing.

We still continue to wear our masks. I can say I will still continue to wear a mask when I'm travelling, when I'm around the presence of others, even though I've had COVID and I've been vaccinated because it just makes sense to use the tools that are provided. I don't have any specific comments on particular airlines or anything but it's a risk-based approach.

What we want to see are policies that keep people safe and that's what we advocate for through all of our interactions with governments, with agencies, with travel industry, tourism, with businesses, with religious leaders. It's about using these tools effectively.

You remember in the beginning of this pandemic, and I'm still struck by this about the discussion around masks and whether or not they work. We didn't have good evidence then. It's much easier to look back now with the data that we have now but masks are beneficial to prevent the onward spread. They also can protect you from infection, as well.

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So, we continue to advise the use of masks when you're around others, particularly when you're indoors or in closed spaces because it's an added layer of protection and especially among those who are vulnerable it is really critical and if you're not vaccinated. So, please use the tools that exist to keep you and to keep others around you safe.

AK Mike, would you like to add something?

MR I noted on a recent flight, Dr Tedros said to me I think we're the only two people on this plane wearing masks. I think Maria said it. She still has her hand gel. We still have our masks here. Yes, it can be seen as an inconvenience and certainly there are many circumstances now in which, if you're a vaccinated individual that your risks are relatively low, you don't have to wear a mask.

But there are still situations are in which, certainly on a plane, for example, or on a bus, I would feel uncomfortable. Certainly, when I come to work every day on the number eight bus I wear my mask because, number one, if I was infected, I'm less likely to infect someone else and I'm less likely to be infected.

Over the course of week or a month, that just reduces my risk enough. It's not an absolute. It's just about that idea of a risk meter in your head and you say over a week I don't want to get infected. Even though I'm vaccinated, I'm likely to have a mild course of disease or a milder course of disease but I don't want to get post-COVID condition.

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This is something I can avoid but at the same time we can't warp ourselves up in bio suits. We have to get back to normal life. So, it's finding that balance. I still, when I go to a coffee shop now or I go out for dinner, I prefer to sit outside than sit inside but if it is pouring rain, maybe I will sit inside. So, it is about adjusting our behaviours as a society to try and keep the intensity of the transmission down.

We've seen where particularly Omicron has come, infections can shoot up really, really quickly and it is in those circumstances that having a return to just measures that keep that distance between us. On the plane the other day, wearing my mask, they were still handing out those little packets, those antiseptic gels. Wipe down the seat, wipe down the cover. It takes ten seconds. Put my mask on and then I just feel that's fine and I can still enjoy the journey.

Others choose not to do that. I would hold nothing against them for that. I'm protecting myself and others. They operate within their own rights and what they're allowed or not allowed. It's not about looking down your nose at other people and feeling superior because you're doing something. It's about you as

an individual or you as a member of your family making a decision for yourself and for those around you and then we can get on. What I wouldn't like to see is people who continue to wear masks or continue to sanitise their hands being ridiculed by others. I've seen that happen and that's not very nice if someone chooses to protect themselves.

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I was in meetings in the United States a couple of weeks ago and one person at the meeting continued to wear their mask through the meeting but that person had a vulnerable individual at home. They weren't wearing the mask for themselves. They were wearing the mask because they didn't want to bring the virus home to a vulnerable person. So, that was a good decision for that individual.

Therefore, when you see people masking and see you people taking extra precautions, it's not that they've become obsessed with hygiene, very often it's because they're doing that to protect someone else in their close family or protect themselves because they're on chemotherapy or because they have an underlying condition. So, if we have that tolerance where we allow some people in our society to take higher precautions and support them in that.

Recently, I went to a shop. I was wearing a mask and the person said would you like me to wear a mask? I thought it was very sweet and very professional. In other words, the customer service was this customer needs to wear a mask. Maybe that person has an underlying condition. I can offer to wear a mask.

I felt empowered by them and I said, no, it's okay but I really felt, and it's a small, little thing but I felt that that person was actually looking out for me as a service provider in a shop. And I felt really good leaving that shop because I thought this organisation cares about its customers and its clients, not about the rules per se but about ensuring that the make everyone who comes feels comfortable.

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I do think we have to enter that phase as a society where we're comfortable that some people won't be wearing the mask but some others will. Some people will be more attentive to risk, others may not be quite. I hope we have that approach over the months that come but I would agree with Maria. I would still wear my mask on the bus, still wear my mask on a plane because they're very enclosed environments in which you're very close to people for a prolonged period of time and, in that case, I can reduce that risk, so I choose to do that.

AK I had a few times a situation in a corner shop in my neighbourhood that I enter with a mask and the guy working there tells me, oh, you can take it off. And, I'm like I wear it for myself, so I'm fine. Here's a great question from Manuela Sali. Which one do you consider as the most challenging indirect impact of the COVID-19 pandemic?

MR We could be here all night. That's a good question.

MK Manuela, that's a really good question and that's a really difficult one to answer. I think what we're seeing now, the world was so focused on COVID for so long and, as we said, we don't want to drop the ball or be taking our eye

off the ball on COVID but I think with the recognition and realisation that we must not lose sight of all of these other challenges that we are facing, we have to find the right balance of dealing with COVID but dealing with all of these other conflicts, all of these other crises that we face that didn't go away.

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I think, for COVID, one of the challenges that we are going to face, that we are starting to face which I think needs much more recognition, is around post-COVID-19 condition or long COVID. In my trip to Brazil, as I mentioned, I visited three post-COVID rehab centres. One was in a converted school, one was in a hospital and one was in a community centre.

To me, that was quite impactful to see the comprehensiveness in which post-COVID-19 need to be managed. As WHO, we have been working on this, on post-COVID-19 condition since the first summer. We met with Dr Tedros, I and others across our organisation, including Janet Diaz, who is our Clinical Lead. We met with patient groups and they asked us. They say we need recognition, we need research and we need rehab.

For many months now, going on two years now, we've been focusing on making sure that there is identification of this with a case definition, making sure that we're having case report forums so that data can be collected and we can analyse this and understand what post-COVID condition is. We've been working across many different departments of WHO with many different types of physicians and clinicians, from paediatricians, dealing with adults and children across all of the different organ systems including mental health, the comprehensive nature in which people suffering from long COVID need to be cared for and cared with.

I think this is going to be a massive challenge going forward because the sheer volume of cases that we have seen across the world. We've registered almost 515 million reported cases, that's 0.5 billion reported cases to WHO but the infection rate, the unrecognised cases is billions. Billions of people have been infected with this virus.

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We don't fully understand the long-term consequences. There's the acute infection, there's the acute disease and people need to get through that and receive that appropriate clinical care but we also need to provide longer-term care for those who need it. So, this is something for us that concerns us and we need to make sure that proper systems are in place within the healthcare system, so that patients receive the care.

One of the challenges I see going forward and that COVID has additionally exposed is this and the increased risk for this, of course, are people who are vulnerable, people who don't have regular access to clinical care. The inequities that existed before this pandemic are being exacerbated during this pandemic. So, that's one of big challenges I see related to COVID and that is something that we are going to have to deal with for years to come.

MR I think I would agree on the post-COVID condition but also on that broader impact on the healthcare system. I think COVID not only exacerbated the problems we see in our system but it really uncovered, it pulled away the

veil from all of the issue of health inequity we have in the world. Systems were already weak, already unfair. They just became weaker and more unfair during COVID.

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Dr Tedros is really focused on this right now and presenting a vision at the World Health Assembly in a couple of weeks' time, really about trying to refocus our efforts on health protection at community level and the determinants of health, the things that determine your outcome when you get sick, so preventing hypertension and diabetes, managing it early so we don't have to suffer the consequences when we have a pandemic of so many people dying because they have underlying conditions.

Healthy aging and having better ways of caring for our older populations and better ways of protecting them when there is an event. There's so much we can do in protection of health and then really refocusing our healthcare onto primary healthcare, onto free healthcare at the point of access, onto a situation where universal access to healthcare is a right and people don't have to impoverish themselves and their families for generations because one person gets sick and requires sophisticated medical intervention.

So, there are all kinds of inequities in our system that have been amplified and highlighted and a light has been shone upon this and it is an opportunity for us to look at that and try and change the way we protect health, change the way we deliver health, in terms of its fairness and its focus.

Then, a huge focus on having a more scalable capacity to respond to an emergency when it happens. We had a lot of rigidity in our system. Many systems failed to scale up. We couldn't move our resources around. Supply chains failed. So, there's a lot of problems in our system, in terms of its ability to be ready for an emergency.

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If we think about that, health protection, healthcare access and then health emergency response and readiness, those three things we really have to fix. As I say, they were uncovered and exposed by COVID but they were there beforehand.

The other I suppose unseen, or not unseen, everyone feels it now, are the longer-term economic consequences of COVID. There were economic downturns in the aftermath of COVID but that's also been amplified now by other issues. In Europe, for example, Brexit generated all kinds of issues with supply chains and worries about the economy, then we have COVID, now we have Ukraine.

We have different events occurring that are actually all converging and creating economic stress. Climate change is causing economic stress in communities all over the world through drought and lack of water. We're seeing economic stresses come from climate change, economic stress come from the pandemic, the economic stress coming now from war that's resulted in sanctions where we have sanctions on countries. Products and commodities are not flowing.

We see the potential and long-term consequences now on the food security of the world with the crisis in Ukraine and our dependence on grain from Ukraine and the Russian Federation, particularly for feeding programmes run by the World Food Program. So, it's very complex what is happening economically. Certainly, COVID has contributed to that economic uncertainty, no question, but it's not the only factor.

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What we have is a kind of a perfect storm of different things that are driving that economic instability. We've seen inflation, inflation in food prices particularly, inflation in energy prices. And when you inflate prices of food and you inflate the cost of energy, it affects the poor the most because that unit of food or that unit of energy is so much more expensive for someone on low income compared to someone on high income.

It has an immediate effect. It affects everybody but those kinds of economic pains really hurt poor people because if I have to pay an extra euro for a litre of fuel for a professional like myself, living in Geneva, I don't like that. But if I have to pay an extra euro for litre of fuel when all I can afford is one litre of fuel and I have to feed a family, it's impossible.

A small change in the price of food or a small change in the price of fuel can impoverish people almost immediately. So, we're really, really concerned about that as well. COVID has driven that, to an extent, but it's part of much more complex web of intertwined economic threats that we're facing right now.

AK We have a question from Ceren. Everyone around me, including the government, seems to behave as if COVID is not around and has never been and it makes me feel alone in this nightmare. From a mental health point of view, can we have a closure? Maybe we can address this question. Then, Maria, it's not a time for closure and I would like to you provide an update with the variants. That's something that we missed in this conversation, as well.

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MK I think Ceren raises a really important question in feeling alone. I think a lot of people in this pandemic have felt lonely, have felt quite alone from either the physical separation from loved ones. There were a lot of people that were told to stay home and our lives completely changed. We haven't seen our loved ones. We haven't travelled, for those of us who are fortunate to be able to travel. Work has been disrupted. School has been disrupted.

We think about this in terms of lives lost but we also think about futures that have changed, that have been significantly altered, the trajectory of people's lives and livelihoods lost. It has been quite a lonely time. I felt that myself, which is strange because we're with people all of the time and we're doing these Lives.

Someone said to me thank you for coming into my living room. You've been in my living room every day. It blows my mind that we're doing these things and we have that connection with people. We changed the social distancing to physical distancing because we want people to feel socially connected and find alternate ways to do that.

But I do think it also relates to the last question. The mental health of everyone has suffered in this pandemic. I think we all want closure to the pandemic. What we've been talking about in terms of closure is ending this emergency. This virus will be with us. This virus is going to circulate but it doesn't have to be causing this level of death and devastation and disruption and impact that it is causing right now.

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That's what we're working towards. We're not working towards finding every single case and preventing every single transmission. That's not possible anymore. Whether it was in the beginning is a good question, but we have tools right now that can keep people alive, so the closure of this trauma that we are feeling, and it is trauma, has to do with ending this emergency.

I think the closure is coming. I was having a conversation today with David Nabarro, one of our COVID-19 envoys. We talk every once in a while and I think was coming to this idea that we have to hold it together. We have to hold this response together. We have to hold it together a little bit longer, whether that is related to our mental health or whether it is related to this notion that we can end this in the hope that we can do that, but it is tough.

And so for Ceren, who is out there watching, just recognise that it is okay not to be okay but there are also avenues in which you can get help. I think everybody who is out there again, myself included, we all need to reach out for help and I think that there is some power in that. Closure is coming but we're just not there yet. But don't despair with that. I think when we speak, when Mike and I speak and we do this, we want to empower people with information, not just lifesaving tools like vaccine, vaccinations, diagnostics, therapeutics.

Information is power, as well. Know what your risk is where you are. Lower your risk where you can but live your life. Do what you can to find joy every single day, whether it is reading or whether it is making a phone call or going out for a walk, listening to music, whatever that may be. That's still really, really important.

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MR I think COVID has been very isolating for many, many people. As society has opened up, most people have rushed out, reconnected with everything in their lives, and it has been an exciting time. But for a significant number of people, that's been a very stressful time, and I really feel for people who have found the opening has been a joy but a challenge for many. You do have to reach out and look around you. Look around your family. Look around your friends. Find that person that is actually struggling with this opening up, struggling with reconnecting with people because for many people that connection is hard and the connection was taken away.

For many people, you can't snap your fingers and jump back into that. That's problematic and people suffer anxiety syndromes and many other things. So, it's just important that you look around you and see who is finding it hard, who is finding it hard to be on that journey.

I've certainly personally spent so many weeks and months alone without my family and it takes its own toll. Friends and work and colleagues at work are fantastic but you need your friends, you need your family and it's just amazing. I'm very lucky. I'm really happy today.

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I've got my daughter sitting here with me and I can tell the difference it makes. In my apartment last night, she's a Trekkie, I'm a Trekkie, sitting down watching some old Star Trek thing together. So, just simply sharing a moment to each some noodles and watch something silly on TV together. I've missed that so much.

And they're the things that connect us and they're the things we've all lost. We've lost big things but we've also lost many of the little things. For many, many people, you look at some of the heroes. My heroes in this response are many of the seafarers who spent months and never got home because of the vaccine restrictions and visa restrictions and COVID restrictions. There are many groups, many health workers who didn't go home for months. They slept in their offices sometimes because they didn't want to bring COVID home to their families.

This has had a big impact on us all, even though we might not recognise it. So, it's really important that we're kind to each other and it's really important we look out for those around us who may be struggling and as you said, to say to people it's okay not to be okay but also to encourage people to seek help where they need it. That's easy to say when you're sitting somewhere like Switzerland. That's not so easy to say when access to basic healthcare in many countries and basic psychological care is so tough and so difficult. It's a very good question and it's something we need to reflect on.

AK Thank you, Mike, and thank you, Maria. Maybe before we close, as you, Maria, said, we're working towards ending this emergency but we're obviously not there yet. Normi Camargo was asking are we going to see a major outbreak all over again like we did when it started. Maybe we can use the opportunity while clarifying this to update on all those Omicron sublineages, BA.4, BA.5, BA.2.12.1. Did I say that right?

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MK You did.

MR It is challenging, Maria, saying that. I look forward to you spelling that one out.

MK I was giving Mike a hard time. It is complicated. The virus is still evolving. Let me address the latter part of her question first because this idea that we will have another big outbreak like we did in the beginning, we're not in the same place as we were in the beginning.

In the beginning of this pandemic we had a world, an entire global population that was susceptible to infection, meaning that anyone could get infected, anyone could experience severe disease. We're not in that same position that we were in, in the beginning of this pandemic. We have tools that save people's lives and protect people from getting infected and save people's lives

if they do get infected. The challenge is making sure that everyone everywhere has access to those tools and that's what we're fighting for.

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So, we're not in the same position where we will see that same level of devastation. What we want to ensure is that we have systems in place that can handle this virus. The virus is evolving and we do not know exactly what characteristics the next variant will have. One thing we do know is that it will be more transmissible because it has to outcompete, it has to replace other circulating variants but we don't know if it will be more severe or less severe.

What we don't want is people out there to worry about that. What we need is to ensure that there are people around the world that have good surveillance systems in place and that we are doing our jobs to be able to track and trace and assess this variant.

One of things that we're doing right now is we're looking at Omicron, which is a variant of concern, and all of the sublineages of Omicron because the variant continues to evolve. The latest sublineages that we are tracking are BA.4 and BA.5 and another sublineage of BA.2, which is this BA.2.12.1. Don't worry if you don't remember all of those numbers out there.

What we can say is globally for Omicron, this variant of concern, BA.2 is dominant, by far dominant in all countries around the world. There is BA.4 and BA.5, very few sequences still to date of this. BA.4 has been detected in 16 countries but a few hundred sequences, less than 700 sequences are available of BA.4 globally.

Of BA.5, it has been detected in 17 countries and only 318 sequences are available of that variant. So, low levels but what we're tracking is what are the characteristics of BA.4 and BA.5? What we can say is that BA.4 and BA.5, they're very similar because they have similar mutations in the spike protein and outside of it, so they're classified together, still part of Omicron. It has a slight growth advantage over BA.2.

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We are starting to see an increase in detection of these two sublineages in South Africa. We're really grateful to our partners in South Africa who are tracking this so carefully and sharing information with us and with the world in real time. Our Technical Advisory Group for Virus Evolution is evaluating these sublineages as well.

We see a growth advantage but we're not seeing a change in severity compared to BA.2 or BA.1, and the reason I say that now is because we do see an increase in hospitalisations but not at a rate that's different than what we had seen for the other variants but we're tracking it. It's very early days and we're looking at it.

In addition to watching what is happening in people, in terms of hospitalisations, we're also looking at what these variants do, these sublineages do in the lab with experimental studies, and those studies are underway. We do see a growth advantage of BA.4 and BA.5 over other variants of concern but it's still low levels and we're watching very closely what is happening in South Africa. We don't know how this variant will behave,

these sublineages will behave in other countries that had a dominant wave of BA.2 and so this is what remains to be seen in terms of whether or not BA.4 and BA.5 will outcompete BA.2.

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The other sublineage that you mentioned, this BA.2.12.1, has been detected in 23 countries but most of the sequences that are available, and right now there are over 9,000 sequences, most of those have come from the US. We don't have much information about this particular sublineage. We see an increased growth rate of this sublineage, BA.2.12.1, over BA.2, so we will start to see increasing case detection of this particular sublineage and we do have some data from New York State, in the United States. We're not seeing a difference in hospitalisation rates of this sublineage compared to BA.2 but again this could change as more information becomes available.

What you need to know out there is that there are many, many people around the world that are tracking this extremely carefully. Our TAG-VE, this technical advisory group which is assessing virus evolution and all these mutations, we meet weekly, we talk regularly based on any of the information that we get.

We also get the question a lot of why aren't you calling each of these sublineages another Greek letter? Right now, all of these sublineages are classified under Omicron and all of these are considered variants of concern. If any of these sublineages have different characteristics, for example if we start to see a change in severity, then we will likely give it another name but right now they're all classified as Omicron and variants of concern.

So, those of you out there, I hope you're a little bit reassured that there are many people that are looking at this and we talk to governments all the time about the need to maintain the surveillance systems so that we can track this and we can trace it, and we can assess it in real time.

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AK Mike, please.

MR What Maria said is absolutely the case and in most of the scenarios that we've developed in looking at the future, we see the virus continuing to evolve. We don't see the most likely scenario being that a brand new virus is going to emerge and put us back to zero. It could happen. It's like something that's there. It's a possibility and that's why we need the surveillance, to keep that early warning in place should it happen.

But that most likely scenario right now is that continued evolution of the virus but what we see, thankfully, is that the current vaccines, the current antivirals remain effective against all of those variants. If you're someone in society, particularly if you're someone with an underlying condition or you're in an older age group, what you need to be doing is you need to get smart about reducing your exposure and for people with underlying conditions, you need to get vaccinated and certainly have the primary course of vaccination and a booster dose if that's what is advised for you in your country.

If you get sick and you get non-specific systems but you have an underlying condition, get tested early and get treated early because these are the things

that will save a life. It's that sequence. Reduce your chance of being exposed, reduced the chance that an exposure will lead to infection, and that's vaccination. That's what vaccine dose. Vaccines don't stop you being exposed to the virus, they stop you getting sick if you are exposed to the virus. Get tested if you're sick and get treated early.

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If we do that, in most situations we will keep the hospitalisation rates very low, we will keep death rates very low even as the virus evolves. The problem we face is that idea of getting vaccinated, that idea of getting testing, that idea of getting treated early is unfairly distributed around the world still.

Coming back, you had mentioned the 70% target. WHO is pushing very hard with our partners to that 70% target and ensuring that 70% of the eligible population have access to that vaccine. We are increasing the level of access that countries have to the vaccine but there are also many countries now, a number of countries right now in which the demand for the vaccine has fallen, where the political commitment to vaccination has fallen, where we have significant problems in cold chain and supply chains. We have to be able to deliver that vaccine to a population that want to be vaccinated.

So, reaching a situation where vaccine is available for 70% of the population and then reaching a situation where 70% of the population is vaccinated are two very different challenges. I believe we're coming very, very close to a point where we will have vaccine available to reach that target and that is great, that's been a success, but we still have significant challenges as well in being able to deliver that vaccine. So, we have to fund and we have to support countries in doing that.

We have to generate the resources to be able to train the workers, to manage the supply chains, to provide the refrigeration, to generate the community engagement and education programmes so that we can increase the demand for those vaccines. So, we're not there yet on that but in linking back to the risks associated with this, the long-term risks associated with COVID are manageable, not like two years ago.

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They are very manageable but delivering the vaccine, delivering the surveillance we need, delivering the treatments we need are the difference between us remaining in a very uncertain period with an unpredictable virus or having more certainty about the future. We can't control what the virus does per se but what we can control is how we respond to the presence of the virus, and I think there is still a long way to go in many countries to support them in getting this job done.

AK Thank you both and thank you also to our viewers for great questions today as we had really a lot and we went longer than usual in terms of timing. So, I thank you for your time and, Mike, this was great advice at the end as well, how still to keep ourselves safe or what to do in case we get infected or sick. So, thank you and until next week, please stay safe.