Global Health Issues

Virtual Press Conference
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Speaker key:

TJ	Tarik Jasarevic
TAG	Dr Tedros Adhanom Ghebreyesus
MK	Dr Maria Van Kerkhove
MR	Dr Mike Ryan
AH	Dr Ana Maria Henao-Restrepo
AM	Dr Abdi Mahamud
SF	Dr Ibrahima Socé Fall
MS	Dr Mariângela Simão
SS	Dr Soumya Swaminathan
KO	Dr Kate O'Brien
BG	Belisa Godinho
CP	Carmen Paun
HB	Helen Branswell
RM	Robin Millard
BK	Banjot Kaur

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TJ Hello to everyone. My name is Tarik and a warm welcome to the WHO press conference on global health issues today, on November 9th, from WHO Headquarters here, in Geneva. Today we have, as always, a number of speakers and we also have simultaneous translation in a number of languages, six UN languages, plus Portuguese and Hindi.

I will first introduce speakers who are here with us in the room and then later I will also mention those who are joining us online. With us, today, we have Dr Tedros, WHO Director-General. Dr Mike Ryan, welcome back, is Executive Director of WHO Health Emergencies Programme. Dr Ibrahima Fall is Assistant Director-General for Emergencies Response. Dr Mariângela Simão is Assistant Director-General, Access to Medicines and Health Products.

Also with us is Dr Katherine O'Brien, Director of Immunisation, Vaccines and Biologicals. We have Dr Abdi Mahamud, who is Director of Alert and Response, Dr Ana Maria Henao, who is Co-Lead of Research and Development Blueprint. Also with us is Ms Tania Cernuschi, who is a Unit Lead within the Department of Immunisation and Biologicals. We have also, as I said, a number of our colleagues online and we will introduce them a bit later. With this, I'll give the floor to Dr Tedros for opening remarks.

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TAG Thank you. Thank you, Tarik. Good morning, good afternoon, and good evening. In recent weeks we have spoken about a surge in cholera outbreaks around the world. The latest country to be affected is Lebanon, which is now suffering a severe outbreak after nearly 30 years without cholera. Since the first case was confirmed just over one month ago, the outbreak has spread across the country. There are now more than 2,700 cases, with 18 deaths.

The outbreak reflects the ongoing economic crisis in Lebanon, with poor access to safe water and sanitation services. WHO is concerned that this outbreak has the potential to overwhelm the already fragile and strained health system.

With the support of WHO, Lebanon has received 600,000 doses of the cholera vaccine from the global stockpile, although that's not enough to protect all those at risk, and we said in this briefing three weeks ago, the global cholera vaccine stockpile is under huge pressure, with outbreaks in 29 countries around the world. To support our response to the outbreak in Lebanon, WHO is appealing for US$10.2 million.

Now, to the Ebola outbreak in Uganda. 135 confirmed and 21 probable cases of Ebola have now been reported from eight different districts, with 53 confirmed and 21 probable deaths. So far, 62 patients have recovered. The government's efforts to respond to the outbreak in the district of Mubende, where the outbreak began, appear to be paying off.

However, in the past two weeks, the majority of cases have been reported from the capital Kampala, and the district of Kassanda. One case has also been reported from the district of Massaka, in the south of the country. The detection of cases in several different districts is clearly concerning.

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Our primary focus now is to strengthen contact tracing, community engagement, and infection prevention and control measures. WHO is continuing to support the Government of Uganda in every dimension of the response, including establishing and equipping treatment centres, providing generators, training health workers and much more.

To fund our work supporting the Government of Uganda to respond to the outbreak, and to support neighbouring countries to prepare for any cross-border transmission, WHO is appealing for US$88 million.

Now, to the COVID-19 pandemic. Just over 9,400 COVID-19 deaths were reported to WHO last week, almost 90% less than in February of this year, when weekly deaths topped 75,000. We have come a long way, and this is

definitely cause for optimism, but we continue to call on all governments, communities and individuals to remain vigilant.

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Almost 10,000 deaths a week is 10,000 too many for a disease that can be prevented and treated. Testing and sequencing rates remain low globally, vaccination gaps remain wide, and the continued proliferation of new variants remains concerning. WHO continues to urge caution and we continue to urge everyone to be fully vaccinate, including getting your next dose if it's due.

Now, to the global monkeypox outbreak. The number of weekly cases of monkeypox reported to WHO has declined 80% from the peak in August, although there was a small rise last week, with 19 countries reporting an increase.

This week, WHO signed an agreement with SIGA Technologies, the developer of the antiviral tecovirimat, also known as TPOXX, for a donation of 2,500 treatment courses. In the coming days, WHO will invite low and middle-income countries to express interest in receiving tecovirimat free of charge.

While this treatment is not approved in most countries, WHO has published a protocol that researchers can use to design and conduct clinical trials of this vaccine and other medicines. In situations where trials are not in place, WHO recommends that tecovirimat be considered for use under a different protocol to promote the collection of data on the drug's effectiveness.

Cholera, Ebola, COVID-19 and monkeypox are all reminders, if any were needed, of the life-saving power of vaccines. With vaccines, we have eradicated smallpox, pushed polio to the brink, and once-feared diseases like diphtheria, tetanus, measles and meningitis are now easily prevented. And yet, according to WHO's Global Vaccine Market Report published today, most of the vaccines that are most important for responding to outbreaks of deadly diseases could face supply risks globally. Cholera is a perfect example.

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Historically, vaccine supply has not kept up with demand and it's usually low-income countries that miss out. For instance, shortages and inequitable distribution of the human papillomavirus vaccine against cervical cancer mean that it has been introduced in 83% of high-income countries but only 41% of low-income countries, even though they account for the greatest share of all cervical cancer cases globally.

Meanwhile, in middle-income countries, affordability of vaccines is a significant barrier to access. Many pay as much or even more than wealthier countries for the same vaccines. Although manufacturing capacity worldwide has increased, it remains highly concentrated, as the COVID-19 pandemic has demonstrated.

Ten manufacturers provide 70% of the world's vaccines. For example, the global supply of the combination vaccine against measles, mumps and rubella is highly dependent on just two manufacturers. Meanwhile, there are no vaccines for many of the diseases that hit low-income countries hardest, like schistosomiasis and leishmaniasis, because there is no profit to be made.

The bottom line is that market dynamics are failing the world's poorest and most vulnerable people. WHO is calling on governments around the world to expand research and manufacturing outside its traditional centres, to increase investment in and oversight of vaccine manufacturing and distribution, especially for vaccines that are developed with public funds, and to agree on rules to collaborate on sharing vaccines equitably when demand is high and supply is scarce.

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We're also calling on the industry to invest in research on WHO priority pathogens, to improve transparency on pricing and capacity, and to facilitate technology transfer to manufacturers in low and middle-income countries. The right to health means the right to vaccines. Tarik, back to you.

TJ Thank you, Dr Tedros, for these opening remarks. We will now open the floor to questions. We also have a couple of WHO experts online. With us is Dr Maria Van Kerkhove, Technical Lead on COVID-19. Also, is Dr Rosamund Lewis, who is Technical Lead on Monkeypox, and maybe a few others if need be.

Also, just to remind everyone that most of our colleagues working on climate change and health are at COP27, so if there are any questions on that, we would probably better be taking them by email. With this, we go to the first question and that's Belisa Godinho, from W Magazine, Portugal. Belisa, please unmute yourself.

BG Thank you for taking my question. I would like you to clarify if there is still a significant number of cases globally for COVID to still be a pandemic. What's the status of the situation right now? In addition to vaccines, is the implementation of any specific medicine planned for the treatment of COVID, the disease? Thank you very much.

TJ Thank you. Thank you, Belisa. Just to be sure that we understood the question. Is COVID still representing a pandemic and about treatments for COVID-19? Maybe can start with Dr Van Kerkhove.

00:14:15

MK Yes, sure. I can start, Tarik, and then I'm sure others may want to come in. COVID-19 is still a pandemic and it's still circulating quite rampantly around the world. We're doing weekly updates where we present the global situation. This comes out in our weekly epidemiological update, which was just published a few minutes ago.

In the latest update, what we see is there's more than two million cases that were reported in the last seven days and we know that this is a substantial underestimate of the true circulation right now because surveillance has declined and testing has declined. So, the number of infections around the world is quite high. It's variable around the world.

What we're really trying to track right now is the impact of COVID-19, in terms of how many people who are infected require hospitalisation and how many are dying. The DG just reported that in the last seven days alone more than 9,400 people died from COVID-19 and this is tragic because we have tools that can actually prevent these deaths from happening.

So, what we need to see is better use of the vaccines, COVID-19 vaccines, that are safe and effective and preventing people from developing severe disease. We need to make sure that those who are at the highest risk of developing severe disease receive the full number of doses that they are required because it saves lives. We also need to be able to use testing appropriately so that patients can get into that clinical care pathway.

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The second part of your question was on treatments. There are a number of treatments that are available for COVID-19 and these treatments can be administered early in the course of their disease so that they can prevent them from developing severe disease. We have a lot of antivirals for this but, again, they need to reach people in countries who need them most.

And there are number of treatments that are available for people who have severe disease that can prevent them from dying. So, for COVID-19, there are many solutions that can be used right now to reduce the spread and also reduce the impact but this still remains a priority for WHO because the emergency of COVID-19 is not over everywhere. We are certainly in a much better position than we were a couple of years ago, even one year ago, because we have so many of these tools, but we have to remain vigilant because the fight is not over. Thanks.

TJ Thank you very much, Dr Van Kerkhove. I hope this covers the question from Belisa. Let's go to the next question and that's Carmen Paun, from Politico. Carmen, the floor is yours.

CP Thank you so much, Tarik. I just wanted to ask about the clinical trials for the vaccines on the Sudan strain. We've heard from the Director-General saying they will start in coming weeks. The Ugandan Health Minister said this weekend that the vaccine should be arriving in the country this week but I was wondering what's holding up these clinical trials.

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Obviously, the virus has reached Kampala, which is very concerning but the timeline for this vaccine still doesn't seem pinned down for the clinical trial. So, what exactly is holding up the clinical trials and when does WHO expect to make a decision about exactly which of the three vaccines will be trialled in Uganda? Thank you.

TJ Thank you, Carmen. Dr Ryan.

MR Maybe I can begin but Ana Maria will give you the details. First and foremost, there is no hold-up. In fact, it has been a remarkable collaboration between institutions in Uganda, the manufacturing industry, sponsor partners around the world including CEPI, Gavi and UNICEF, BARDA in the United States, the United Kingdom Government, the Oxford Group. They're working on vaccines. The Sabin Vaccine Institute in the US, the SII in India.

We've had a remarkable global collaboration to bring potentially three new products for distribution and testing on a combined platform in Uganda with leadership and direction very much being delivered by the Ugandan government and through the auspices of Makerere University and others in Uganda.

So, it is incredible, in fact, to be in a position where we can potentially bring these products onto that platform in the coming weeks. The issues are very much around ensuring that, number one, we prioritise the correct products, and there is an independent prioritisation committee that's been working on that and the different products.

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There are also issues in terms of the speed of production and the amount of vaccine that can be produced on the various platforms. So, there's a lot of scheduling to do and there's a lot of work to do to ensure that we have the right products at the right time and the right place. Ana Maria will give you more details but it will be entirely incorrect to characterise this vaccine response as slow or laboured. It is, in fact, one of the fastest responses ever to bring experimental products into an epidemic response in my 25 years of working in this space.

AH Thank you. As Mike says, this is a tremendous effort. I will describe quickly all the actions that are happening in parallel. The first, as Mike says, under the leadership of the Ugandan researchers we are making tremendous progress in preparation of the teams, the logistics and everything to conduct the trial, and they are very close to being ready. It's important to consider that preparing for a trial requires a lot of steps to ensure that the trial is conducted up to international standards and Ugandan researchers are moving forward with that.

The second is that we have a protocol that was developed within a week with the collaboration of scientists all around the world. It is being considered by the national regulatory authority in Uganda, the Ethics Review Committee in Uganda, the Scientific Advisory Committee in Uganda and the WHO Ethics Review Committee. They provided, all of them, some comments and the responses to their comments have been submitted. So, we hope that very soon we are going to get the approval.

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In parallel, as Mike says, WHO has requested an independent expert group to review the evidence on the vaccines. As Mike mentioned, these vaccines, some of them were being produced as we speak, others were in bulk and they were transferred to buyers with all the necessary evaluations. So, for the committee to review that you also need to have that documentation. The committee, as soon as the documentation was available, went through the information and we expect that shortly we will have a recommendation.

Then, finally, we also need to emphasise what Mike says. Also, in my career I've never seen such level of collaboration and I would like to thank the developers from Sabin Vaccine Institute from American IAVI and also from the University of Oxford for their collaboration. They have made everything to have this vaccine ready into buyers as soon as possible.

If you understand, we want to do it fast but we also want to fulfil international standards. We hope that in the coming weeks we could start. Nothing is holding back. What is behind this is hundreds of people working against the clock day and night to get ready. Thank you.

TJ Many thanks, Dr Ryan and Dr Henao. We go to the next question. We have Helen Branswell, from STAT. Helen.

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HB Thanks very much for taking my question, Tarik, and thank you Ana Maria and Mike for the update on the vaccine work. My question is also related to the outbreak in Uganda. Sarah Newey, in The Telegraph, has reported that government modelling suggests that this could become a very big outbreak, that it has the potential of being into the thousands of cases as opposed to hundreds.

It also suggests that the relations between the government and international partners on the ground is not good. Can you talk to us about that? It's been very hard to get up-to-date information out of Uganda. They're not posting numbers very frequently and I'm just wondering are they sharing information in real time to the degree that is necessary? Thank you.

TJ Thank you, Helen. Let's start with Dr Abdi Mahamud. Abdi.

AM Thanks, Helen. To start the first one, the piece on modelling. As you know and I also spoke to you last week, when we explained it, in terms of planning, we have to do some scenario planning and we go through it in terms of a sustained three scenarios. We use that and in almost every outbreak we use that.

Just to clarify, that's for planning purposes, not for prediction, so that we don't have to support the healthcare workers, PPE, the ETUs that will require all other activity. That's one. So, it's not a predictive model. These is normal scenario modelling that we go for planning purposes.

The second piece, in terms of the relation with the government. Just to report at the national level, the National Task Force is chaired by my counterpart, Alex, and here, at the global level, we have a Regional Incident Manager and at the country level the Incident Manager is co-chairing with the government. So, we are aligned there.

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Of course, any outbreak will have challenges and that's why we need managers to resolve those challenges that are coming up on a daily basis. There will be shortages. There will be problems coming up in terms of contact tracing. So the government and everyone there are available to discuss that and resolve the issues, but what the government is trying to do, and with the advice that we have in there, is to resolve issues at the district, at the lowest level, so that rather than being a headline in the media that the challenges are addressed there.

Absolutely, as I have said, we have seen more and more challenges and we are going through that. In terms of data sharing, we have an excellent team there, in Mubende, who are doing a lot, data analytics teams. And the work here, from our headquarters and the regional level, we've deployed more epidemiologists. So, this is streamlining those, so that verified data get published.

The last two or three days there was a delay since we didn't have any new cases or new deaths. Once that automated report is financialised and approved by the government, I think we will have a more system-wide that can be easily available for there.

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The rest of the challenges I think are being addressed at the district level. I'm not going to say there are no challenges. There are challenges in infection prevention control measures. As the DG said, there are challenges in contact tracing, there are challenges in the clinical management, but these are resolved at the district level, as the sub-country level and also the national level. I don't know, Mike, if you'd like to add.

MR Thank you, Abdi. I think it was very comprehensive. On a more general note, Helen, there are two really important responsibilities when it comes to responding to epidemic like Ebola, which has potential to cause national problems but also has a potential for international spread. So, there are multiple stakeholders here.

There is the national government protecting their own population and there's the international community trying to avoid transmission further on and maintain regional and global health security. And, in that, it's really important when international teams and international organisations come to a country that they respect the authority and sovereignty of a responsible national government and engage responsibly.

Equally, it's important that national authorities in that same situation, accepting international teams, ensure that they recognise that there is more than one stakeholder and the international community has a stake in these responses. And it's finding the balance between those two and there is always, in my experience again, it's 30 years, more than 25, I have never been in a response like this.

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In a response like this people are dying. The community is scared, the economy is under pressure, the political system is under pressure. Everyone is a little bit more tense. Tensions are not the issue. The issue is how tension is resolved and where it is resolved and how fast it is resolved. As Abdi said, we need to be resolving these issues as close as possible to the frontend of this response.

The community-facing end of this response, as in all responses, is the most important. If your community are not engaged, if the community are not supportive, if the community are not supported and if the community don't feel that the responses are calibrated to stop the virus with stopping lives and livelihoods, then there is a problem

So, there is an issue in all responses, including in Uganda, in ensuring that that communication with communities is done extremely well and that the technical, scientific, operational response is also inserted into the local system in a way in which it doesn't cause tension and it supports and empowers the local response.

And that's always the fear, is that international responses can overpower a local response, and what can happen in that situation is the local knowledge gets lost in the response. The real magic in a response is bringing national and international technical and operational scientific capacities to bear with local knowledge, with local capacity, with local innovation.

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When you make those two things work together, something very special happens. You actually get on top of any virus, any disease, and where that's not happening you need to look every single day and ask yourself a question. Are we flexible? Are we agile? Are we responsive? Are we inclusive? Are we transparent? If you can't answer those questions at any level properly you have a problem and you need to address that, and you need to look for answers in each of those individual areas.

So, this is an issue that faces every response. I was in Uganda 22 years ago as the International Team Leader for the last big Ebola Sudan outbreak in Gulu. I spent six months of my life there. I have huge faith in my colleagues in Uganda, in the science in Uganda, in public health in Uganda to be able to bring this disease under control.

The actual outcome is in our control but if we don't act completely coherently, if we don't coordinate, and there's no point coordinating at the international level. Abdi is correct. That coordination, that flexibility, that agility and listening to people when the speak of problems, the person who identifies a problem in the field is not the problem. We need to listen to people, communities and frontline responders.

When there's an issue and something isn't working we all need to listen, and I do think more listening to the local issues, responding to and resolving local problems in any response are very important and in this case, in Uganda, we have a complex epidemic and we're not out of the woods yet.

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A huge amount of tremendous work has been work on containment, on research and others but the response needs to be further optimised, maybe I can put it like that, and we can all contribute to that. That's not just an issue to be owned by a minister, an issue to be owned by local government officials. That issue is owned by us all and we need to find better and more efficient ways to do a better job on behalf of the people we actually serve, which are the local communities affected by this disease.

TJ Dr Fall.

SF Thank you very much, Tarik. I'd just like to come back to the use of modelling in epidemics. We are prepared for a number of models and these are used for planning and we use these to avoid getting to the worst-case scenario. These models are very mathematically driven but often this isn't enough. We need local intervention. That is why the epidemiologists on the ground look at the model but they also work more with the local communities so that the right reactions are taken at the local level in the COVID-19 pandemic or the projections in Africa, etc.

There are many factors which were involved in these projections and, as we have done following this retrospectively the assessment of COVID-19 pandemic mortalities, there were more deaths than were expected. Therefore, it's really important to work with models and also to know that interventions on the ground really make the difference here and that is what's important. Thank you.

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TJ Thank you, Dr Fall. Thank you, Dr Ryan and Dr Mahamud. Let's go to the next question. We have Robin Millard, from AFP. Robin.

RM Thank you. Now, a ceasefire has been struck in Tigray, might that open the door to medical aid going in? How quickly do you think that might be able to happen and what might be the difficulties in getting that sort of volume of aid into the region? Thank you.

TAG Thank you. First of all, the progress in the negotiation is welcome. From the start of the conflict, WHO has been saying a peaceful resolution is the way forward, so we're glad that parties are negotiating and I hope they will continue their commitment because I said it many times, the most courageous choose peace and we need peace for everything.

Then, having said this, since the signing it's already a week. I think it's exactly a week. It was last Wednesday when we had the presser and nothing is moving in terms of food aid or medicines and you can imagine that many people are dying from treatable diseases, many people are dying from starvation.

What we believe is, even in the middle of fighting civilians need food, need medicine. It cannot be a condition, especially after the ceasefire agreement. I was expecting that food and medicine would just flow immediately. That's not happening. A week is not a short time to arrange if there is a need, to arrange some things to make it happen.

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So of course, we're glad peace is given a chance. Let's give a chance to peace but we would also urge the immediate delivery of food and medicine. Thank you. And also, of course, the reopening of the basic services like banking, telecom and the power transfer.

And, to be honest, allowing journalists like you to go to Tigray because everything that has happened in the last two years has been done in total darkness and six million people have been completely separated, shut off from the rest of the world, as if they don't exist. But still we're glad that peace is being given a chance and I repeat the most courageous choose peace, and I hope all parties will continue their commitment to peace. Thank you.

TJ Dr Ryan.

MR If I could just add to Dr Tedros, welcoming the idea of a humanitarian corridor but also in having previous experiences in other settings around the world, it's really, really important that that corridor is opened and unrestricted. If we end up in situation of drip, drip where some things get through, other things don't, then this is not going to work.

The people in Tigray need immediate, massive, overwhelming assistance now, not drip, drip assistance. They've been, as Dr Tedros has said, more than a year, 15-16 months without any assistance, without any aid. Now, it needs to be massive assistance in both health, in health and not only that massive assistance in goods and commodities but also the free movement of staff and our ability to scale up our staffing levels in order to support that delivery of aid.

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Just to confirm what Dr Tedros said, there has been no change in that status in the last week and we still remain on standby to take advantage of any opportunity to provide life-saving assistance to the people there right now. So, we need free movement of the goods, the services and the people to help deliver that fuel, vehicles and other things.

And it must be and has to be an open corridor in which we don't end up with shutting down, shutting off, turning on, turning off that drip feed. The people of Tigray right now do not need drip feed. They need massive, immediate assistance to save life.

TJ Thank you, Dr Tedros and Dr Ryan. We have just enough time for one last question. Banjor Kaur, from The Wire, India. Banjor, could you please unmute yourself and go ahead.

BK Hi. Thanks for taking my questions. I was just wondering if any one of you could provide a quick update on the cough syrups which were potentially linked to the deaths of 60 children in Gambia, whether the Gambian government has indicated anything on their investigation to the WHO or the Indian government has told WHO anything. Also, if you could talk about the stages of clinical development of second generation COVID-19 vaccines. Thank you.

TJ Thank you, Banjor. Let's see if we can answer those two questions. Dr Simão.

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MS Thank you for the question. Let me just say that the investigations are ongoing. The clinical investigations in The Gambia are still ongoing but the fact is, from the WHO perspective, the investigation into the causal relationship between the use of medication, contaminated, substandard medication and deaths, this investigation and any further information has to be provided by the Ministry of Health in Gambia. We're working very closely with them.

But, at the same time, let us be very frank here because the products that were identified as substandard and that had contaminants that are very toxic and that can cause ill health and can cause death were identified in four products and this is the reason why WHO issued and alert for these four products and the Indian regulator has suspended its manufacturing commercialisation.

Let me say that we also have an ongoing investigation with the Indonesian authorities, also with contaminated paediatric formulations. Eight paediatric formulations were taken off the market by the Indonesian authorities and WHO has recently issued a global medial alert for these products in the case that they are being commercialised in other countries.

But it's the same type of contaminants, what we call diethylene glycol and ethylene glycol, which are well-known contaminants. So, this is an ongoing investigation but it's very important that products that contain these two substances are not suitable for human consumption in any form. Thank you.

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TJ Thank you very much, Dr Simão. Let's see how we can address the second question. Our Chief Scientist, Dr Soumya Swaminathan, is online. Dr Swaminathan, would you like to take the floor and answer the question?

SS Yes, thank you. Thanks for that question. I think the first thing I'd like to say is that it is important to continue research into improved vaccines. We don't need more vaccines using the same technology because we already have safe and effective vaccines. But we know that the existing vaccines, while they're still robust at protecting us from severe disease and death, their limitation is that the variants which are emerging of SARS-CoV-2 are able to overcome the immune response and still cause infection.

Every time there is evolution of the virus, the mutations are accumulating in a way that make the virus able to overcome the antibody responses and infect us, and so this is why we continue to see large numbers of infections around the world and some of them obviously result in death, particularly if people are unvaccinated or immunocompromised or in the elderly where immunity wanes.

So, I think what we're really looking for now in the next generation of COVID vaccines is firstly a broader spectrum of protection, ideally a pan-coronavirus vaccine or at least a pan-beta coronavirus vaccine which will be very broadly protective against variations in the SARS-CoV-2 or even beyond the SARS-CoV-2 virus.

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We are looking for longer-lasting immunity, so that we don't have to do booster but we still don't know at this point of time whether annual booster are going to be needed or not. Some scientists think that they may be needed for vulnerable and high risk groups.

Thirdly, we're looking for protection against infection, not just against getting severe disease. That's quite a high bar to ask of a vaccine to protect completely against infection. There are few vaccines, very few that do that. But if we could do it, obviously, then that would be ideal because we know that even mild infections sometimes can lead to long-term sequelae and organ damage.

That's why people are testing new modes of delivery like, for example, the nasal vaccines and the oral inhalable vaccines. Ana Maria can say a little bit more about them, and a couple of them are actually undergoing trials right now, including one in the Solidarity vaccine trial. People are also looking at different delivery mechanisms, nasal.

The proposed advantage or hypothetical advantage of a nasal vaccine is that it also generates mucosal immunity, local immunity, so that when the virus lands into the respiratory tract that it's local immunity, local antibodies which will prevent the virus from binding and getting down into the system or into the

lower respiratory tract. So, that would be ideal in an infection-blocking vaccine. We don't know, as yet, if any of these vaccines are going to do that. So, that is, I think, really the goal.

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In addition to that, of course, the mRNA and other platforms now offer us an opportunity to combine vaccines against various respiratory infections, and so there are many groups now working on combining influenza and COVID, or RSV, influenza and COVID. It would be great to have one shot to protect against multiple viral infections that tend to cause seasonal outbreaks and disease. So, that's another approach.

Then, the third area I wanted to flag is important for future pandemic preparedness and that is creating prototype vaccines against viruses that could potentially cause or virus families that could potentially cause future outbreaks, epidemics or even pandemics, and this is where the WHO is developing a prioritisation of viral families as well as identifying a prototype virus from each of those families.

There are 25 or 26 viral families but from them, if we could identify one prototype virus, groups around the world could develop a prototype vaccine which sits on the shelf but if it there is an outbreak it can be quickly brought out tested and used very rapidly. So, those would be the goals. Ana Maria, perhaps you want to add some more details.

AH Thank you, Soumya. Just to summarise what you have said. We are working and the developers are working on vaccines that could be specific for the current variants. Now, most of the new, emerging vaccines are designed against the Omicron variant and, as you say, the developers are also coming into alternative ways to administer these vaccines like the nasal aerosol or oral vaccines.

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These vaccines, beyond the desirable effect of protecting against severe illness, hospitalisation and death, can have the potential of preventing perhaps transmission. So, that's the first area of work. The second area of work that you mention is the area of preparing for the future with vaccines that will induce levels of cross-protection, like the so-called pan-cervical virus and, in that, WHO has organised several consultations to identify what are the knowledge gaps and what are the research priorities to move forward, and there are some candidates moving forward.

And the third, as Soumya says, as we emerge from COVID what other kind of other candidate vaccines? We need to think globally as a community for the other pathogens that could emerge and cause large outbreaks, multi-country outbreaks or even pandemic.

So, we are working on these three areas and I think that what is important is that with the current tools, and I'm sure Kate is going to mention that. We have already a number of current tools and vaccines that still are very effective against the severe outcomes of COVID. So, a challenge every day. Today, it is to ensure these vaccines reach the people who are a risk. Thank you.

KO Just a couple of things to add to Soumya and Ana Maria's excellent reply to the question. The first is I think it is pretty important to just remind people about the coverage that has been achieved in especially those older than 60 years of age and healthcare workers, which remains incomplete and certainly well below the target of 100% of those high priority groups being vaccinated, particularly in low-income countries.

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There's still a lot of work ahead in order to ensure that those highest priority people are fully vaccinated, including with their booster dose of the existing vaccines that are working very well against those severe outcomes. The second thing I just want to add, I'll just remind people that the Director-General released an update to the COVID-19 vaccine strategy in the summer of 2022 and there were two specific goals in that strategy.

The second goal is exactly what this question was about, which is maintaining and increasing, in fact, the investments towards vaccines that do more than the current vaccines do, and you've already had a great answer about what we mean by more, so durability, broader protection and really providing protection against the less severe end of the disease spectrum.

I just want to point to that as well, that that strategy remains completely relevant and contemporary for the situation that we're in now with respect to the pandemic and to this virus and to the performance of the vaccines now which, I'll just continue to reinforce, are working very well against that severe end of disease spectrum and really important for people to be fully vaccinated, especially for those who are due for booster dose. You can refer to our guidelines on that. It's time for people to get those booster doses. Thank you.

00:49:27

TJ Thank you very much, Dr Swaminathan, Dr Henao and Dr O'Brien. With this, we will conclude today's press conference. We will send audio and video files a bit later and the transcript will be available tomorrow. With this, I give the floor to Dr Tedros for his closing remarks.

TAG Thank you. Thank you, Tarik. I would like to thank the media for joining us today and see you next time.