Report on the Strategic Response to COVID-19 in the WHO African Region

1 February 2021 to 31 January 2022
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As we enter the third year of the COVID-19 pandemic, now is the moment to reflect on the lessons learnt, and plan together for what lies ahead. The virus stress tested and exploited gaps in our institutions, economies and societies. African countries did well in the early waves of the virus, based in part, on their experience in successfully battling diseases like Ebola and polio. They provided a model for others in terms of contact tracing and suppressing the virus. Through the Access to COVID-19 tools (ACT) Accelerator, WHO and our partners worked to provide vaccines, tests and treatments to African countries. Based on the Strategic Preparedness and Response Plan 2021, WHO worked with African countries to procure much needed oxygen and medical equipment and also to upgrade laboratories, which have been key to identifying new variants of COVID-19.

Regrettably, during the pandemic, a small number of rich and manufacturing countries hoarded critical health tools, including personal protective equipment, tests, treatments and vaccines. As COVID-19 became more transmissible and fatigue with public health and social measures grew, it became harder for fragile health systems in Africa to cope. This led to unnecessary COVID-19 deaths, as well as backsliding against other health threats, such as measles, polio, HIV and malaria.

Where resources have been focused on supporting the vaccine roll-out, rates have improved, although many countries still have a long way to go to meet global targets. This leaves countries open to future waves of the virus that could cause health system collapse.

Going forward, WHO will be actively working with countries to increase COVID-19 vaccination, as well as access to lifesaving antivirals and testing. This needs to be backed by countries investing in health system strengthening to recover the previous gains against both infectious and noncommunicable diseases.

We are building the foundations today to better prepare the continent for further waves of COVID-19 and future pandemics. This includes the creation of WHO’s mRNA vaccine technology transfer hub in South Africa, which is working with a network of technology recipients (or spokes) across the continent that would have access to the know-how and share the technology around mRNA vaccine manufacturing. This will be useful for COVID-19 as well as other vaccines.

Let this herald a new era of solidarity, guided by the notion of health as a global public good, so that together, we end this pandemic and build a legacy to be proud of.

Let’s stand together

Dr Tedros Adhanom Ghebreyesus
WHO Director-General

The world must stand together to end the pandemic
The year 2021, the second of Africa’s battle against COVID-19, proved to be an extremely difficult one, heightened by the increasingly severe third and fourth waves of the pandemic, and global COVID-19 vaccine inequity. For WHO African Region countries, these challenges were compounded by a range of other humanitarian crises, with 38 of the 47 countries experiencing some level of food shortages. Reasons varied from extreme weather events to political crises or conflicts, further hindering the pandemic response.

On a more positive note, since the first reported COVID-19 case in Africa on 14 February 2020, several countries on the continent have assumed a leading role in the response. For example, on 4 March that year, Nigeria became the first African country to sequence the SARS-CoV-2 genome. In late 2021, Botswana and South Africa identified Omicron, the most transmissible strain to date, of the COVID-19 variants.

While countries struggled to reach global vaccination coverage goals, great strides were made towards vaccinating Africa’s most vulnerable. Countries also leveraged early lessons learnt in the pandemic to improve laboratory testing capacities, case management, and public health and safety measures.

This report highlights the pandemic response results achieved between 7 February 2021 and 31 January 2022 in the WHO African Region, in line with the 2021 Strategic Preparedness and Response Plan.

For the team at WHO AFRO, the focus during the second year of the pandemic was on accelerating technical support to countries to help close operational gaps, while putting in place measures to strengthen health systems to cope with the continued crisis. In August 2021, with full antigen and PCR testing capacities established in all 47 countries in the Region, the emergence of new variants shifted the overall focus to increased genomic testing to identify and combat a fast-changing viral landscape, while enhancing case management capacities.

Training more than 500,000 medical personnel and technicians, and repurposing many of our own team to tackle the emergency, WHO in the African Region helped ensure sufficient oxygen and medical equipment for qualified case management, for all Member States on the continent. Worthy of special mention is that the number of intensive care unit (ICU) beds in the Region more than doubled during 2021 alone, from less than one to two per 100,000 population.
On the community engagement front, the focus was on improving communication with and within communities, ensuring continuity and consistency of basic messaging on public health and social measures, such as social distancing and handwashing, essential elements of the pandemic response. Our studies confirmed that collective advocacy efforts by COVID-19 partners in 2021 successfully overcame vaccine hesitancy.

Despite multiple health emergencies, some Member States particularly affected by humanitarian crises managed to successfully curb the spread of COVID-19. This was in no small measure due to joint action by our United Nations family and other health partners on the ground. One example of this cooperation was the Global Polio Eradication Initiative (GPEI), which mobilized polio health workers to support the COVID-19 response by delivering vaccines, mobilizing communities and countering misinformation, among other activities. The use of GPEI infrastructure for the health emergency response provided critical lessons for integrating polio resources into broader health systems, as more countries near their transition and post-certification period for that disease.

There was also good news from Botswana in December 2021. At the height of COVID-19, it became the first high-burden country to be WHO-certified for achieving an important milestone on the path to eliminating mother-to-child transmission of HIV: “…namely that of bringing the mother-to-child HIV transmission rate to under 5%, providing antenatal care and antiretroviral treatment to more than 90% of pregnant women, and achieving an HIV case rate of fewer than 500 per 100,000 live births.”

In effect, this meant that a nation in which 20% of the population are living with HIV could now look forward, confidently, to raising an AIDS-free generation. This momentous milestone was the result of collaboration between the people living with HIV, and concerted actions by multiple health partners. It is an extraordinary achievement, and we believe that understanding how it was accomplished offers lessons for countries around the world.

Out of necessity, countries across our Region were challenged to innovate to find solutions, and several applied research and development activities to tackle the pandemic. In Senegal, researchers developed an immune-based diagnostic test for COVID-19, available for only US$ 1, while the country’s engineering students built a multifunctional medical robot to lighten the burden on health care workers. Kenya converted existing factories to produce tens of millions of masks, while Ghana used drones to deliver samples from testing sites to laboratories. Rwanda also used locally assembled drones to increase COVID-19 awareness, and robots to screen and monitor patients.

This Annual Report reveals significant progress in surveillance, cross-border collaboration, testing, infection prevention and control, and treatment and continuity of essential health services during crises. These examples of best practice will be invaluable for tackling emerging challenges and informing our collective response going forward. The continental solidarity displayed during what was a very difficult year will be crucial as we collaborate to end COVID-19 in the African Region.

Dr Rebecca Matshidiso Moeti
WHO Regional Director for Africa
<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
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<tbody>
<tr>
<td>AACHRD</td>
<td>African Advisory Committee for Health Research and Development</td>
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<td>ACCOS</td>
<td>African COVID-19 Critical Care Outcomes Study</td>
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<td>ACT-A</td>
<td>Access to COVID-19 Tools Accelerator</td>
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<td>AFENET</td>
<td>African Field Epidemiological Network</td>
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<td>Africa CDC</td>
<td>Africa Centres for Disease Control and Prevention</td>
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<td>Ag-RDT</td>
<td>Antigen-detecting rapid diagnostic test</td>
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<td>AIRA</td>
<td>Africa Infodemic Response Alliance</td>
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<td>AVAT</td>
<td>African Vaccine Acquisition Trust</td>
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<tr>
<td>CADMEF</td>
<td>African Conference of Deans of French-speaking Faculties of Medicine</td>
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<tr>
<td>CEPI</td>
<td>Coalition for Epidemic Preparedness Innovations</td>
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<tr>
<td>COVAX</td>
<td>The vaccines pillar of the ACT-A</td>
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<tr>
<td>ECHO</td>
<td>European Civil Protection and Humanitarian Aid Operations</td>
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<tr>
<td>FAO</td>
<td>Food and Agriculture Organization of the United Nations</td>
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<td>Gavi</td>
<td>the Vaccine Alliance</td>
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<td>GIS</td>
<td>Geographic information system</td>
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<tr>
<td>Global Fund</td>
<td>Global Fund to Fight Malaria, Tuberculosis and HIV/AIDS</td>
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<tr>
<td>HHA</td>
<td>Harmonization for Health in Africa</td>
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<td>IDR</td>
<td>Integrated Disease Surveillance and Response</td>
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<td>IMS</td>
<td>incident management system</td>
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<td>IPC</td>
<td>infection prevention and control</td>
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<td>KPIs</td>
<td>key performance indicators</td>
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<td>MoH</td>
<td>ministry of health</td>
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<td>O²</td>
<td>Oxygen (medical)</td>
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<td>PHC</td>
<td>primary health care</td>
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<td>PCR</td>
<td>polymerase chain reaction</td>
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<td>PPE</td>
<td>personal protective equipment</td>
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<td>RADAR</td>
<td>Rapid ACT-Accelerator Delta Response</td>
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<td>RCCE</td>
<td>risk communication and community engagement</td>
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<tr>
<td>REPONGAC</td>
<td>Regional network of active NGOs for Central African Countries</td>
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<tr>
<td>SRH</td>
<td>sexual and reproductive health</td>
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<td>SRHR</td>
<td>sexual and reproductive health and rights</td>
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<tr>
<td>SRHS</td>
<td>sexual and reproductive health services</td>
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<tr>
<td>STI</td>
<td>sexually transmitted infection</td>
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<tr>
<td>SOFA</td>
<td>sequential organ failure assessment</td>
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<td>SPRP</td>
<td>Strategic Preparedness and Response Plan</td>
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<td>WHO</td>
<td>World Health Organization</td>
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<td>WHO-AFR</td>
<td>World Health Organization in the African Region</td>
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<tr>
<td>UNICEF</td>
<td>United Nations Children’s Fund</td>
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<tr>
<td>UNFPA</td>
<td>United Nations Population Fund</td>
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<tr>
<td>UNOCHA</td>
<td>United Nations Office for the Coordination of Humanitarian Affairs</td>
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<td>WHO-CO</td>
<td>World Health Organization country office</td>
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This report highlights the results achieved in response to the COVID-19 pandemic in the WHO African Region, in line with the 1 February 2021 to 31 January 2022 COVID-19 Strategic Preparedness and Response Plan (SPRP).

In 2021, the African Region lived through three waves of the COVID-19 virus, amidst the emergence of new variants, with each wave peaking higher than the former, though not necessarily resulting in higher death ratios. Countries battled multiple complex humanitarian crises and had to contend with the morose resumption of health programmes and clinical services, pandemic fatigue, an exhausted workforce and economic fallout. By the end of January 2022, the Region had registered 7.76M cases and 161,700 deaths, with pointed differences among countries regarding hospitalizations and case fatality ratios, depending on response capacity, comorbidity incidence, health system resilience and vaccination rates, among other factors.

Community transmission was the main cause of the spread of the virus, and consequently, the response maintained a high priority for investment in risk communication and community engagement. Despite some gains during 2021, the vaccination rate hovered at 9.96% for those with the first dose, and 6.31% for those fully vaccinated. Considered low, this rate has been attributed to the erratic incidence of vaccine supplies, compounded by vaccine inequity. Indeed, in 2021, in stark contrast to the vaccination rates in Africa, 37 countries across the world were assigned six times as many vaccine doses for booster shots.

Notwithstanding the shortfall of roughly 300 million vaccine doses, by end-January 2022, 24 of the 47 countries in the African Region had vaccinated 40% of the population. However, this situation may soon be reversed. A concerted action by the joint AVAT and COVAX facility is scheduled to complete delivery of one billion vaccine doses to the continent by mid-2022, including 400 million doses resulting from industrial scale fill and finish efforts in South Africa.

In response to reporting gaps in health system continuity, and all aspects of the response, a COVID-19 information hub has already resulted in enhanced evidence for decision-making, with more and better disease-related regional data and information collection, analysis and knowledge products. The analysis undertaken by the hub reveals that many cases of the disease were likely missed, given the low testing in difficult-to-reach areas, even though increased testing was conducted in urban areas for travellers, and those with symptoms.

WHO supported countries in improving alert management systems for early detection at health facilities, and at the community level, with considerable emphasis placed on active case finding and contact tracing. In December 2021, training for contact tracing was in high demand in West Africa, with a number of countries requesting technical advice.
1 FEBRUARY
Continuous drop in COVID-19 cases across the Region from the second wave.

24 FEBRUARY
Ghana receives first COVAX facility shipment of COVID-19 vaccines.

15 MAY
At least 400,000 internally displaced people in Chad face severe food shortages, as a result of a combination of conflict and drought.

22 MAY
80,000 people flee across the border from Goma, in the Democratic Republic of the Congo to Rwanda, from the eruption of Mount Nyiragongo volcano, one of many multi-hazard emergencies.

11 JUNE
Integrated Food Security Phase Classification (IPC) 5 (catastrophe) is called in Ethiopia’s Tigray region, with 353,000 people at risk of famine, and a further 1,769 million in phase 4 (emergency).

24 NOVEMBER
Omicron variant is identified in Botswana and South Africa – it multiplies around 70 times faster than the Delta variant in the lungs.

27 JULY
South Africa announces a fill and finish partnership with Pfizer-BioNTech and the Biovac Institute, for 400 million doses of the COVID-19 vaccine, at a rate of 100 million per year.

1 JUNE
COVID-19 Delta variant cases peak at 202,000 positive cases, among those tested for the disease; deaths rose by 15% across 38 African countries, to nearly 3,000.

24 JUNE
WHO and South Africa announce the opening of the mRNA vaccine technology hub, set up to build capacity in low- and middle-income countries to produce mRNA vaccines through a centre of excellence and training.

Timeline – February 2021 to January 2022

**2021**

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**2022**

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All countries register a steep decline in COVID-19 incidence.

26 JANUARY
Tropical Storm Ana hits Mozambique and Malawi, wreaking havoc, with thousands homeless and without power, and a trail of destruction of crops, schools, roads and health facilities.

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Omicron variant is identified in Botswana and South Africa – it multiplies around 70 times faster than the Delta variant in the lungs.

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WHO unveils action plan to address sexual exploitation and abuse in the Democratic Republic of the Congo, in response to findings issued in a 28 September 2021 report by an independent commission.

14 OCTOBER
Initiative to enhance community screening for COVID-19 launched in eight countries – to reach seven million people – in response to data showing that only 14.2% – or one in seven – COVID-19 infections are detected in the Region.

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1. Context
The year 2021 witnessed three waves of the COVID-19 pandemic, each more virulent than the previous one, albeit not necessarily deadlier. The pandemic confirmed deep health system inequities, such as the continued dependence on external production of vaccines, insufficient intensive care unit (ICU) beds, and the absence of medical oxygen and other materials, essential in the treatment of the virus at the global, regional and country levels. Exacerbated by the imposition of restrictions and travel bans, lockdowns and the consequent trade paralysis, the pandemic led to an estimated monthly US$ 29 billion in productivity losses, stunning health services in Africa.

It further exposed global disparities in health workforce capacity, with the ratio of patient to healthcare worker varying from fewer than 10 doctors per 10 000 persons in Africa’s less industrialized economies to more than 90 doctors per 10 000 persons in Europe. With the lowest rate of investment in health care globally, only two of the Region’s 47 countries have complied with the commitment made in 2001 by Africa’s finance ministers, to spend 15% of their national budget on health systems, while 13 countries have spent the annual US$ 60 per capita, considered to be the global standard, with the remainder spending only half as much.

As lockdowns spilled over from 2020, earlier in the year, mass vaccination campaigns for diseases such as measles, polio and meningitis ground to a halt, leaving millions of children at increased risk of deadly, preventable diseases. Simultaneous humanitarian crises also overwhelmed health systems in many countries, with the consequent closure of health facilities, already burdened by healthcare worker redeployment to the COVID-19 effort, along with shipment delays of essential medicines and devices. Furthermore, fearful of catching the disease, fewer people sought treatment at clinics.

Eventually, because the number of recorded cases and deaths was much lower than had been predicted in March 2020, during the first wave of the disease, by mid-2021, health programmes such as HIV, wild polio, and tuberculosis slowly regained momentum. In addition, by the end of November 2021, the number of ICU beds had more than doubled from 0.8 per 100 000 to two (2) per 100 000 beds, compared to 100 per 100 000 beds in Europe. Health systems also adopted new more integrated case management protocols, based on community surveillance, and a combination of clinical and home-based care.

The pandemic brought attention to the economic and social disparities among countries, and even within communities. Of concern was the low mass vaccination rollout in most African countries, as compared to other parts of the world, even as new COVID-19 variants emerged. In the middle of the fourth wave, fewer than 10% of the continent’s people had been vaccinated, albeit with a relatively low - 2.5% - average case fatality ratio for the Region. This too offered contradictions, and in at least, 10 countries, case fatality ratios oscillated, surpassing the regional average into double digits, before falling again at the end of January 2022.
There is some speculation regarding the lower numbers for COVID-19 in Africa, as compared to other parts of the world. These include demographic characteristics (age distribution), differences in case identification methods, death detection capacity, the possible contribution of pre-existing immunity from other viral infections, and the role played by aridity and temperature in transmission. In 2021, the WHO Regional Office for Africa tried to make sense of these theories, with analysis and research ongoing. Similarly, our analysts tried to gauge the impact of the crisis on other diseases. It is currently too soon to see direct increases in illness and deaths from other diseases, the data and modelling suggest that the knock-on effects of the pandemic will linger long after it has ended. This is particularly true for women and girls, with an additional 30 million women in sub-Saharan Africa likely to fall below the poverty line by 2030, according to studies on the impact of the pandemic.

In Africa, the loss of confidence in the health systems has impacted community support for the response. However, despite the health systems gap caused by chronic inadequate investment in healthcare, African countries and partners were compelled to cast a wider net for vaccine procurement and began oxygen production and distribution on an industrial scale, increased intensive care capacity, consolidated community-based surveillance and case management standards, and greatly improved laboratory and genomic testing. Pressured to resume economic activity, in 2021, many countries suspended lockdowns, and opened their economies, while maintaining preventative practices such as face mask wearing, mandatory testing at borders, quarantine for infected persons, and in a few cases, mandatory vaccination certificates. Most countries also maintained commitment to social and public health measures, such as hand washing, cross-border movement controls, social and physical distancing and symptom-related triage and referral, which are all key to epidemic management.

In this scenario, the WHO African Region’s response entered the second year of the pandemic with a considerable body of knowledge, lessons learnt, and applied research accumulated during the first year of the crisis. Health served to further backstop its ‘whole-of-organisation’ approach as a regional advisor and convener, pursuant to its global health security mandate. Cognizant of the implications of the COVID-19 virus for health systems, which were already at the breaking point, even before the pandemic, WHO AFRO continued to broker Africa’s expanded ability to undertake real-time polymerase chain reaction testing (PCR) and genomic diagnostics. Its emergency response team worked directly with Member States and partners at the regional and country levels to improve contact tracing and surveillance, boost oxygen supplies and train medical personnel for comprehensive case management.

FIGURE 1: The epidemic information graph depicts the four waves of the SARS-CoV-2 pandemic in Africa, starting from January 2020. By February 2021, when this SPRP began, the second wave of the pandemic had already started to collapse, plateauing slightly, only to rise again in third and fourth waves.
2. Deploying resources responsibly and strategically

2.1 Overview

2.2 Vaccination

2.3 Laboratory – expanding testing and identifying variants

2.4 Health service continuity and case management

2.5 Therapeutics

2.6 Cooperation, behaviour and risk communication and community engagement

2.7 Innovation and technology: thinking outside the box

2.8 Communication and infodemic management

2.9 COVID-19 operational support and logistics
2.1 Overview

The COVID-19 2021 Strategic Preparedness and Response Plan (SPRP) for the World Health Organization’s African Region (WHO AFR) was designed to encompass all aspects of the pandemic response, based on the ‘whole-of-organization approach.’ Guided by a coordination management structure and 11 technical pillars, an information network attached to its presence in 47 country offices in Africa, and partnerships with other United Nations agencies, bilateral and multilateral entities, development banks, civil society organizations, universities and business, it provided continuity and incorporated lessons learnt from the first year of the global pandemic and from previous epidemics or pandemics.

FIGURE 2: WHO-AFRO’s COVID-19 2021 strategic preparedness and response plan (SPRP) objectives
By January 2022, some 8% (143 million) of people in the WHO African Region had been fully vaccinated, accounting for less than 3% of global COVID-19 vaccinations. Full vaccination coverage remains under 5% in 14 of the Region’s 47 countries. Even so, vaccination rose incrementally, and by October 2021, 46 of the 47 countries had received vaccines or had started vaccination. Forty-four of the countries received doses through the COVAX facility. Subject to marked vaccine inequities, 29 of the 46 Member States that had started vaccination reached 10% full vaccination, with 38% of them having fully vaccinated at least 25% of their high-risk population. Five countries - Botswana, Cabo Verde, Lesotho, Mauritius, Rwanda and Seychelles - achieved coverage of over 40%, with Mauritius and Seychelles achieving the 70% target set for June 2022.

As of January 2022, the African Region had received 494 million doses of the COVID-19 vaccine, 53% of which were administered, and 0.6% had expired. This represented a shortfall of 300 million doses, to match the 780 million doses required to reach 30% of the people in the Region. With distribution, personnel, logistics and equipment costs hovering at US$ 5 for every US$ 1 spent on a vaccine, in early 2022, international partners promised funding for the Region’s vaccination effort.

In May 2021, WHO set a global target for countries to fully vaccinate 10% of their populations by the end of September; 40% by the end of December; and 70% by mid-2022. While the 70% vaccine coverage by 2022 is geared towards stopping the pandemic, the interim targets of 10% and 40% are meant to ensure an equitable pace of vaccine rollout globally, in addition to appropriate vaccine prioritization for people at the highest risk.

Country experience – Cabo Verde

Cabo Verde had, as of early February 2022, vaccinated 54% (353 706 persons (315 984 aged 18 years and older + 37 722 aged 12-17) of its population of 655 000, with the first dose. As of the same date, another 293 709 persons had received two doses (269 659 aged 18 years and older + 24 050 aged 12-17), passing the 40% milestone, which had been set by WHO for end December 2021.

Highly dependent on both tourism revenue and global industrialized goods supply chains, Cabo Verde was particularly hit by the COVID-19 pandemic. Bearing significant job losses, a leap in public debt, and GDP plummeting by 14% in the first year of the crisis, the country decided to invest in vaccination, redefining priorities to buffer its health system from further calamity. In concertation with a network of community health workers, and using school buildings as vaccination centres, the country rolled out its COVID-19 vaccines. Key to the successful vaccination campaign were a strong universal primary health ethos, backstopped by a qualified and fully dedicated workforce. Health services also prioritized systematic case testing and referral, with strong emphasis on community engagement and social behaviour change communication, according to Dr Arlindo do Rosario, Cabo Verde’s Minister of Health in a recent meeting with WHO AFRO. In mid-2021, Cabo Verde’s strategy resulted in a collapse of the case fatality ratio, as well as a much lower rate of hospitalizations during the fourth wave of the pandemic.
Countries grappled with vaccine uptake for two main reasons: operational funding and logistics challenges. Vaccine shipments suffered inconsistent distribution and were unpredictable in terms of the type of vaccine delivered. This compelled countries to always be ready at short notice with cold chain logistics, as well as provide training in the use of different types of syringes. Impromptu vaccination drives implied a high risk of failure to reach targeted populations. Most countries (60%) received vaccines through the COVAX facility, and the African Union vaccine procurement mechanism, AVAT. A coordinated multi-partner vaccine scale-up to 20 priority countries was launched in early 2022, with an initial 50 technical staff, including WHO staff, consultants and STOP team members deployed to countries.

Several countries made use of WHO’s COVID-19 Vaccine Country Readiness Assessment Tool, updated in March 2021, and vaccinated priority populations such as the elderly, health care workers and those suffering from preconditions. Vaccine hesitancy has been mixed across Africa, with studies showing that many are willing or are waiting to be vaccinated once the vaccine becomes available. In several surveys, however, the willingness to vaccinate appears to be directly correlated with disease burden, i.e., the higher the number of COVID-19 deaths, the higher the number of those willing to vaccinate.

FIGURE 3: Percentage fully vaccinated people with COVID-19 in the African Region

With a loan from the United States, in a partnership with BioNTech-Pfizer, South Africa’s Afrigen Biologics started a fill-and-finish production operation in July 2021 for 400 million doses of the COVID-19 mRNA vaccine. With only 10 vaccine manufacturers on the continent, COVID-19 is considered a game-changer in increasing Africa’s biomedical capacity.
Deploying resources

Resource mobilization

Evaluation programmes

Standing together

Deploying resources

Resource mobilization Evaluation programmes Standing together

Report on the Strategic Response to COVID-19 in the WHO African Region – 1 February 2021 to 31 January 2022

Falsified vaccines

During the year, WHO AFRO deployed specialists and conducted training and workshops, in at least 40 countries, to address weak regulatory systems and to curb the expansion of phony and substandard drugs and vaccines, along with false information and marketing. To this end, national partners took part in infodemic management exercises, and received training in social listening. To dispel doubts on their quality, a guide was also widely shared, explaining the efficacy and safety of the Chinese manufactured vaccines, Sinopharm and SinoVac.

Lessons learnt

Building resilience to control the virus

Immunization (natural or vaccine-induced) lowers fatality rates and hospitalization, but each immunization is important for improving the overall immune response both of the individual and the population. Immunity itself is not a static state, but something that evolves over time due to somatic mutations in the immune cells that are stimulated. Indeed, be it vaccination, natural immunity by contracting the disease or boosters, with every new exposure to the virus, the range of variation grows in the pathogen to which the immune system is capable of responding. Immunity wanes over time, but the more prior exposure to the virus, the better the chances of protection from severe disease once the host’s immune system is re-stimulated by an infection. The Omicron variant happened to be less virulent because of a change in its pathology, not because we had suddenly gained sufficient immunity. Indeed, the preceding Delta variant, during the second and third waves of the pandemic, had already laid the groundwork to immunize a large swath of the population. Notwithstanding this information, there is no evolutionary pressure towards lower virulence, and no guarantee that the next variant to emerge will share Omicron variant’s favorable pathology. We cannot rely on natural immunity alone, a move that would be risky, as the virus does more to the body than the vaccine, and may even stimulate an early response that prevents long-term immunity from forming. As much as possible, we must keep vaccinating and boosting.

Jessie Abbate, PhD.
Epidemic Team, WHO AFRO
2.3 Laboratory – expanding testing and identifying variants

The year 2021 witnessed an increase in the use of antigen-detecting rapid diagnostic tests (Ag-RDT) to complement PCR testing and to scale up testing capacity at all levels of the health system, including in remote areas across the African Region. The emergency use listing of rapid diagnostic tests based on the SARS CoV-2 antigen-detection created the opportunity to supplement PCR testing. At least, 40 million laboratory tests were performed in the first half of 2021, while a total 72 million tests were performed over the lifespan of the pandemic. Ag-RDT and PCR testing play a major role in case detection, patient isolation, contact tracing and quarantine, the key elements to breaking COVID-19 transmission chains.

In the first six months of 2021, several countries experienced a third wave of COVID-19, followed by a fourth wave at the end of 2021. Based on data up to 30 June 2021, testing increased to meet the demand generated by this third wave, with 16 of 47 countries testing within the 10/10 000 population testing benchmark. Although testing fluctuated in January 2021, between 21% and 36% of countries had attained this benchmark, with 50% showing low positivity rates (<5%).

In the third quarter of 2021, testing increased to meet demands, with a minimum of 20 of the 47 countries testing within the 10 per 10 000 population universal testing benchmark for testing, with over 70% of them having low positivity rates (<5%). However, in the fourth quarter of 2021, while several countries experienced a fourth wave of COVID-19, testing decreased. During that period, 40% of countries had not reached the testing benchmark, compared to the third quarter. This was probably due to COVID-19 fatigue, coupled with reduced activities during the festive season. In the last week of 2021, more than 50% of countries had high positivity rates, attributed to the Omicron variant, in addition to the continued incidence of the Delta variant.

### Ag-RDT distribution and training

Ag-RDTs were distributed to

- **5** Provinces in the Democratic Republic of the Congo, enabling testing in hard-to-reach locations with limited infrastructure.
- **15** Districts

To further promote the use of Ag-RDT, WHO AFRO delivered training to

- **37** Countries
- **3** Languages reaching more than **800** End users

During the second semester of 2021, training continued with a focus on small group hands-on or virtual training to optimize the experience. As the use of Ag-RDT in the Region builds momentum, WHO AFRO, in conjunction with partners, continues to work with policy-makers and stakeholders to expand their use and enable comprehensive testing across Africa.
The emergence of multiple variants of SARS-CoV-2 has highlighted the importance of genomic characterization. In this sense, laboratory testing remained significant, and seven of 10 countries prioritized variant identification and were able to build sequencing capacities. WHO AFRO provided technical training in November 2021 to 12 countries, in collaboration with Africa CDC. An additional 31 technicians received remote and hands-on training in Mauritania and Angola. The WHO AFRO technical labora-
tory team conducted field visits to nine countries to assist in building sequencing capacities, while other countries were supported remotely. Gaps were identified in countries’ genomic sequencing data storage capacities, which lacked reliable servers and enhanced internet capacity, thereby hindering sequencing data sharing on public platforms such as GISAID, a mainstay of pandemic collabora-
tion.

TABLE 1: Sequencing capacities and training conducted in the West and Central African Region

<table>
<thead>
<tr>
<th>ACDC joint training at IPD Senegal</th>
<th>ACDC joint training at ACEGID Nigeria</th>
<th>Training ongoing at Noguchi MIMR Ghana</th>
<th>Hands-on training</th>
<th>Ongoing virtual bioinformatics training</th>
</tr>
</thead>
<tbody>
<tr>
<td>15 Participants (9 from WAMA)</td>
<td>17 Participants (3 from WAMA)</td>
<td>10 Participants</td>
<td></td>
<td>56 Participants (49 from WAMA)</td>
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<tr>
<td>Algeria</td>
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<td>Cabo Verde*</td>
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<td>Côte d’Ivoire*</td>
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<td>Benin*</td>
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<td>Burkina Faso</td>
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<td>Gambia</td>
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<td>Ghana</td>
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<td>Guinea-Bissau</td>
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<td>Liberia**</td>
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<td>Mali</td>
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<td>Mauritania*</td>
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<td>Niger**</td>
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<td>Senegal</td>
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<tr>
<td>Sierra Leone</td>
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<tr>
<td>Togo* + **</td>
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<tr>
<td>Total countries</td>
<td>9</td>
<td>5</td>
<td>10</td>
<td>49</td>
</tr>
</tbody>
</table>

*Countries where at least one field visit was conducted (as of 31 December 2021). WAMA (West Africa, Mauritania and Algeria).
**Lab experts were deployed for one month in Liberia and one week each in Benin and Togo.

Three genomic surveillance centres located in Southern, West and East Africa were inaugurated in 2021 to:

a) assess country genomic sequencing capacities, opportunities and gaps through country visits and questionnaires, and strengthen the human resource laboratory capacity, conduct monitoring and evaluation and provide technical support to countries.
b) capacitate countries that have no sequencing capacity to establish and strengthen country capacity through wet lab and bioinformatics training.
c) support laboratories on the Africa Regional Laboratory Network with supplies for sequencing.
d) support countries in developing Gene biobanks and data management capacities.
e) support countries in developing Genomic surveillance strategies.
f) improve capacities to integrate PCR screening for detection of SARS-CoV-2 variants of concern in COVID-19 variant surveillance strategies. The centres are working closely with AFRO/OSL to address country needs such as reagents and supply stockpiles.

Increasing pathogen identification together with genomic sequencing capacities is key to helping countries to plan and preposition resources in preparation for COVID-19 resurgence.
The 2020 emergency use listing of antigen-detecting rapid diagnostic tests had already provided the Region with a simple, low-cost device to rapidly scale up testing. Despite their initially slow uptake, extensive use of the device was registered during the second and third waves of the pandemic, increasing countries’ testing capacity nearly fourfold, a key step in prepositioning resources before further resurgence waves. However, in the context of persistent limitations on testing capacities in the Region, countries were advised to take up Ag-RDTs to increase and expand testing capacities and to integrate PCR screening assays that could detect circulating variants, as a complementary approach to sequencing. In 2021, support was provided to improve the management of variant surveillance data, to better provide the associated meta-data necessary for interpreting sequencing results. Testing data reporting to ascertain the impact and usage of Ag-RDT in the Region remains a challenge, especially as Ag-RDT and PCR testing results are not disaggregated.

**FIGURE 4:** Diagnostics update – lab and testing capacity

- Testing capacity has greatly increased since the beginning of the pandemic from 43 labs being able to test by PCR in June 2020, to more than 1,000 labs.
- As of 13 February 2022, over 97 million tests had been done on the continent, 72 million in the African Region – mostly by PCR.
- 14 countries regularly report tests performed with Ag RDTs, with a total 7.4 million tests accounting for 50% of all tests done in those countries.

**Perspective – National partner**

**COVID-19 preparedness and response in South Africa – strengths, challenges and priorities for 2022 and beyond**

Strong coordination mechanisms at the central level allowed South Africa to prepare and respond to COVID-19 in 2021, even as the newest variant of concern was discovered by the country’s scientists. Using an incident management structure (IMS) drawn from WHO’s emergency response framework, the COVID-19 response relied on a whole-of-government approach, involving technical experts from each government department, along with private sector collaboration. South Africa’s national laboratory network prompted the 2021 detection and genomic surveillance of the newest COVID-19 variant of concern – Omicron – and provided continuous testing capabilities, resulting in a planned and measured case management-oriented response. Policy and public health measures were guided by field data and evidence, providing policy-makers and the medical community with the ability to make recommendations during the rapidly evolving phases of the pandemic.

A key ingredient to ensuring that South Africa will maintain its capacity to tackle emerging strains of COVID-19 is sustaining and improving coordination mechanisms between the national and provincial levels, to curb duplication of efforts, and ensure provincial alignment with national policies and guidelines. For example, while the country’s data repository at the national level is comprehensive, data was reduced at the peripheral levels. In this regard, it is essential to adopt standard surveillance and reporting systems and boost training programmes and much needed monitoring and evaluation capacities. Similarly, during the past two years since the emergence of the virus, COVID-19 rapid tests and PCR laboratories had not been subjected to quality control and assurance to bring them in line with international standards. On a separate but related note, the crisis calls for the adoption of a single integrated, reliable management information system for the facilities to guide supply and demand of services. Not least, there is a need to enhance the number of case investigators and contact tracers to improve those services.

The priority for 2022, will be to strengthen coordination mechanisms. Guided by a functional public health emergency operations centre within the National Department of Health, the strategic approach is to work at the local level to streamline data collection systems, capacitate staff on preparedness and response, increase vaccination coverage altogether, and establish more local production of vaccines.

Dr Devanand Patrick Moonas
NPO emergency preparedness and response
Ramping up Nigeria’s genomic sequencing capacity to combat COVID-19

The fourth wave of COVID-19 peaked in December in Nigeria, with the onset of Omicron, the most transmissible and dominant variant of the virus to date. In the most populous country in Africa, with 200 million people, as of 31 January 2022, 15 million people had received their first dose of the vaccine, and 5.5 million the second dose. The first shipment of four million Oxford-AstraZeneca COVID-19 vaccine doses from the COVAX initiative arrived in March 2021, and vaccination began almost immediately.

Besides a push to inoculate the most vulnerable, Nigeria’s health sector reacted to the emergence of ever more virulent variants of the disease, by ramping up genetic sequencing capacities to guide case management. The country also contributed sequences in the global SARS-COV-2 genome repository maintained by the Global initiative on sharing all influenza data, within a network of five laboratories coordinated by the Nigeria Centre for Disease Control’s National Reference Laboratory.

Building the capacity for increased testing so as to meet the need for samples is an important part of the continental effort to scale up genomic sequencing of SARS-CoV-2, as well as of other pathogens such as Lassa and yellow fever, endemic to Nigeria. During the third wave of the pandemic, in July 2021, when the predominant COVID-19 variant was the Delta, a genomic surveillance strategy was adopted to sequence samples among arriving travellers. As the variants spread, the first action to stop the chain of transmission was public warning, mostly through the media, and by conducting rapid diagnostic tests. These were introduced in public settings such as schools, youth service camps, and government offices. Other measures to protect those at risk included supporting infection prevention and control in health facilities and providing training to health workers.

Boosting genomic surveillance, can help Nigeria improve outbreak readiness

In the last five years, the Nigeria Centre for Disease Control has worked to strengthen the country’s capacity to prevent, detect and respond to infectious disease outbreaks. Outbreak preparedness and response coordination are undertaken by emergency operations centres at national and subnational levels, a digitalized infectious disease surveillance system, and programmes for infection prevention control, risk communications, and antimicrobial resistance.

Improved outbreak readiness also requires strong global collaboration; platforms created by WHO, Africa CDC and other partners enable cross-country learning, another aspect of pandemic management. Besides providing technical advice to the COVID-19 Presidential Taskforce (PTF), in 2021 WHO supported Nigeria in developing a decentralized testing strategy, and boosted a three-laboratory molecular testing network to a further 142 laboratories, in addition to information product generation, provision of standard case definitions, guidelines, protocols and standard operations procedures (SOPs), and identification and isolation of confirmed cases, including guidance for severe, acute respiratory infection (SARI).
2.4 Health service continuity and case management

Despite early evidence of service recovery, throughout 2021, nearly all countries remained affected by the pandemic. In the African Region, 91% of countries reported disruptions in at least one essential health service. Thirty-nine countries in the Region responded to the three rounds of WHO’s global pulse survey on continuity of essential health services during the COVID-19 pandemic. Two rounds were undertaken in 2021, the third covering June–November, with similar results to those reported during the first quarter of the year. Sixty-six services were included from the following areas: primary care, emergency, critical and operative care, rehabilitation, palliative care, cancer care, community care, and tracer services for reproductive, maternal, newborn, child and adolescent health and nutrition, immunization, communicable diseases, neglected tropical diseases, mental, neurological and substance use disorders, and care for older people.

While the magnitude of disruptions in the second quarter of 2021 remained similar to those reported in the first quarter of the year, they were not as severe as 2020 levels. However, most health care settings and service delivery platforms, particularly first-contact services, were affected. More than half of respondent countries reported disruptions or increased backlogs in elective surgeries, appointments with specialists, primary care, rehabilitative and palliative care services. Five times as many countries reported severe service disruptions for ambulance services between the first and second quarters of 2021, confirming that countries with weaker health systems before the pandemic tended to suffer more.

**FIGURE 5:** Two years into pandemic, service disruptions persist across the Region

<table>
<thead>
<tr>
<th>Percentage of services disrupted per country</th>
<th>Countries reported continued disruptions to 47% of tracer health services</th>
</tr>
</thead>
<tbody>
<tr>
<td>(number of tracer service = 66)</td>
<td></td>
</tr>
<tr>
<td>More than 50% disrupted</td>
<td>Rwanda, Guinea-Bissau, Algeria, Burundi, Niger, South Sudan, United Republic of Tanzania, Liberia, Mauritius, Democratic Republic of the Congo, Senegal, Ghana, São Tomé and Príncipe, Mali, Seychelles, Kenya, Gambia, Mozambique, Madagascar, Comoros, Namibia, Benin, Côte d’Ivoire, Cameroon, Ethiopia, Uganda, Guinea, Eswatini, Lesotho, Central African Republic, Sierra Leone, South Africa, Zambia, Botswana, Cabo Verde, Togo, Malawi, Zimbabwe, Chad, Equatorial Guinea, Mauritania, Gabon, Angola</td>
</tr>
<tr>
<td>25–50% disrupted</td>
<td>Rwanda, Guinea-Bissau, Algeria, Burundi, Niger, South Sudan, United Republic of Tanzania, Liberia, Mauritius, Democratic Republic of the Congo, Senegal, Ghana, São Tomé and Príncipe, Mali, Seychelles, Kenya, Gambia, Mozambique, Madagascar, Comoros, Namibia, Benin, Côte d’Ivoire, Cameroon, Ethiopia, Uganda, Guinea, Eswatini, Lesotho, Central African Republic, Sierra Leone, South Africa, Zambia, Botswana, Cabo Verde, Togo, Malawi, Zimbabwe, Chad, Equatorial Guinea, Mauritania, Gabon, Angola</td>
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<tr>
<td>5–25% disrupted</td>
<td>Rwanda, Guinea-Bissau, Algeria, Burundi, Niger, South Sudan, United Republic of Tanzania, Liberia, Mauritius, Democratic Republic of the Congo, Senegal, Ghana, São Tomé and Príncipe, Mali, Seychelles, Kenya, Gambia, Mozambique, Madagascar, Comoros, Namibia, Benin, Côte d’Ivoire, Cameroon, Ethiopia, Uganda, Guinea, Eswatini, Lesotho, Central African Republic, Sierra Leone, South Africa, Zambia, Botswana, Cabo Verde, Togo, Malawi, Zimbabwe, Chad, Equatorial Guinea, Mauritania, Gabon, Angola</td>
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<tr>
<td>Regional average: 47%</td>
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</tbody>
</table>

Denominator: Represents responses from countries/territories that responded to at least one survey section and consented to data sharing. Services include 66 services from the following areas: primary care, emergency, critical and operative care, rehabilitation, palliative care, cancer care, community care, and tracer services for reproductive, maternal, newborn, child and adolescent health and nutrition, immunization, communicable diseases, neglected tropical diseases, mental, neurological and substance use disorders, and care for older people.

Source: Round 3 Global pulse survey on continuity of essential health services, Nov-Dec 2021 (reflecting situation during previous six months).
Experience from past epidemics shows that disruptions in health care systems result in a significant number of indirect deaths. For example, during the 2014–2016 Ebola epidemic in West Africa, more deaths were attributed to disruptions in malaria, tuberculosis (TB), HIV, maternal and child health (MCH) services than from Ebola infection. The findings showed that health services remained interrupted in 39 countries, and even when virus infection numbers were waning. The surveys also provided critical insight from key country informants into the extent of the impact of the COVID-19 pandemic on essential health services across the life course, the reasons for those disruptions, and how countries continuously adapt strategies and approaches to maintain service delivery.

Across the Region, health system disruptions highlighted the opportunity to respond to and overcome service anomalies and recover quality services. Based on the concept of building back better, WHO assisted countries in developing home-centred case management protocols for COVID-19 care, which is strongly tied to 17 community health practices, such as referral and surveillance, which are already practised across the Region.

Based on various levels of implementation of non-pharmaceutical intervention measures, Africa’s early response to the COVID-19 pandemic saved lives. However, measures restricting social contact and movement of people – several of which had already been interrupted at the time of writing this report –, as well as the fear of visiting health care facilities, greatly affected health care services for non-COVID-19 conditions during the better part of the year. In addition to reallocation of resources such as health care personnel and diagnostic equipment to effectively combat the pandemic, shortage of medical supplies arising from disruption in supply chains further compounded the impact of COVID-19 on the treatment of other health conditions. As Africa settled into the reality of a protracted COVID-19 situation, several outbreaks of other diseases such as EVD, typhoid, cholera, and pneumonic plague occurred.

New therapeutic treatments for COVID-19 emerged during the second half of 2021, some of which are described here. But with prices – and availability – hovering outside purchasing capacity for most countries in the region, boosting health systems and enhancing case management capacities, in addition to vaccination and basic public health and safety measures remain the most important strategies for the region.

FIGURE 6: Reported actions to mitigate consequences and promote service recovery

All countries reported using at least one strategy to overcome service disruptions, such as:

- Home-based care and catch-up visits
- Recruitment, training, and support to health workers
- Procurement of surge commodities
- Communication with communities
- A number of health financing strategies

Source: Round 3 global pulse survey on continuity of essential health services Nov-Dec 2021 – reflecting the last six months.
The pandemic’s long reach affects women and the elderly

For women, the pandemic’s disruptive force will be felt for many years to come, with 40% of African countries reporting continued disruptions to sexual, reproductive, maternal, newborn, child and adolescent health services. One survey of 11 African countries revealed an 11% increase in maternal deaths in 2021, but the actual number could be much higher, because home births are not counted. Conditions during the crisis also exacerbated levels of both gender-based violence and teenage pregnancies, and one in four women in Africa reportedly witnessed more frequent conflicts at home.

Meanwhile, the COVID-19 crisis inflicted extensive economic damage, pushing more women and girls into extreme poverty. In 2021, 133.5 million women and girls aged 15 and older were living on less than US$ 1.90 a day – 53% of the global number – due to the economic impacts wrought by COVID-19, said a UN Women report. It can take almost a decade before spiralling poverty rates are restored to pre-pandemic levels. Moreover, existing gender inequities deepened significantly, and while women constitute 70% of the health and social workforce, 85% of national COVID-19 task forces are led by men. The gravity and extent of these consequences cannot be overemphasized. Interruptions to health services are exacerbating women’s often already limited access to health care, especially in the African Region.

The situation for older vulnerable populations has also been difficult. A WHO AFRO study conducted during the first semester of 2021 demonstrated that among rapidly ageing populations, the associated incidence of noncommunicable diseases (NCDs) hindered the response. Where 22% of older people participated in the economy pre-pandemic, changes to online services and social interactions implied increased poverty rates and food insecurity among the elderly, albeit mitigated in some countries by direct vaccination of the most vulnerable. Budgetary and logistical constraints and vaccine hesitancy, have meant many older people remain unvaccinated.
In 2021, many African countries reported continued disruptions to sexual, reproductive, maternal, newborn, child, and adolescent services. Indeed, contraceptive prevalence among married women in sub-Saharan Africa, which hovered around 27.9% before the crisis, faced further decline, leading to an even greater number of unplanned pregnancies, and unsafe abortions. Other sexual and reproductive health and rights (SRHR)-related challenges such as sexual and gender-based violence, and female genital mutilation have also risen since the start of the crisis, as a result of lockdowns and other changes in family dynamics, in addition to school closures.

To prevent even greater damage, WHO AFRO joined forces with the Swedish International Development Agency (SIDA) from mid-2020 and throughout 2021, to support 17 countries in the continuity of essential sexual and reproductive health services in the context of the pandemic. With a US$ 5 million grant from SIDA, WHO AFRO worked with countries to strengthen their capacity to maintain the continuity of essential high-quality sexual and reproductive health programmes, and to strengthen monitoring systems for tracking their progress.

In several countries, WHO SRHR guidelines were adopted and disseminated, and simplified protocols and tools for family planning, prevention of unsafe abortion, antenatal care, post-partum care and newborn care services were developed for programme managers and service providers. For young people and sexually active adults, access to treatment of sexually transmitted infections (STIs) and the prevention and response to sexual and gender-based violence was also revived in several countries. Community-based information and service provision, together with the promotion of self-care interventions were employed to increase sexual and reproductive health service (SRH-S) access and utilization.

Some country achievements resulting from the SIDA-WHO-AFRO partnership are described here.

**Burundi:**
- 167 community health workers were trained in community-based contraceptive distribution.
- 96 health workers were trained in maternal and perinatal death surveillance.
- 60 peer educators were trained in SRHR service maintenance in the context of COVID-19.
- A medical caravan of paediatricians was organized to increase awareness and management of newborn and child pathologies in the context of COVID-19 and more than 80 newborns and children were treated.
- A call centre was established at a centre for youth and adolescent counselling.

**Burkina Faso:**
- The maternal and perinatal death situation in eight regions was analysed, resulting in an action plan to address high maternal mortality rates in regions which have been doubly impacted by the COVID-19 and humanitarian crises.

**Cameroon:**
- Guidelines were developed for continuity of services, and the management of pregnant women and newborns.
- Thirty healthcare workers were trained in compiling sexual and reproductive health (SRH) indicators, in line with national and regional monitoring and evaluation targets for the topic.
- With the launching in October 2021 of an incident management system (IMS) for maternal and perinatal death surveillance and response, operational guidelines were put in place to support action plans on the topic.

To improve public visibility for SRHR, music, sport and culture were harnessed to engage local stars such as singer Indira and the footballer Ajara to advocate for essential services continuity.

These combined efforts in Cameroon contributed to an increase in the number of family planning clients received in service delivery points as depicted in the graph below:

![Figure 7: Trends in family planning clients in service delivery points in Cameroon](image-url)
PART 2: WHO AFRO and Sweden collaboration on COVID-19 implication on essential health service delivery for sexual and reproductive health and rights, and mitigating the risk of system collapse

July 2020 – December 2021

Central Africa Republic:
140 health workers received training in national guidelines on self-care, task-sharing and infection prevention and control (IPC). Furthermore, an advocacy document was developed for SRHR integration in the humanitarian response plan in the context of the pandemic.

Chad:
Focus was placed on safe abortion and post-abortion care, with the training of 47 trainers in three worst-hit health districts to roll out the training.

Republic of Congo:
Equipment for safe abortion was provided in 12 health facilities in the Pool and Niari departments (regions); 50 health workers from two districts received training on family planning, and 25 midwives were trained in safe delivery in the context of the COVID-19 pandemic. A dedicated unit for safe delivery of women suspected or confirmed to be COVID-19 positive was set up in the Dolisie General Hospital in the Niari department. With the training of health providers, equipping the unit and providing personal protective equipment (PPE), none of the health providers in the unit was infected with COVID-19.

Democratic Republic of the Congo:
Reproductive, maternal, newborn, child and adolescent health and nutrition guidelines were adapted to COVID-19, implemented and monitored in 22 of the country’s 24 provinces. In seven provinces, student nurses carried out self-care for family planning and community contraceptive distribution, and 112 service providers and 820 community-based distribution agents were trained in the depot medroxyprogesterone acetate injectable contraception (DMPA-SC) injectable contraception.

Gabon:
Sexual and reproductive health equipment (five sterilization devices, five manual vacuum aspirators, three electric vacuum aspirators, 500 boxes of 100 non-sterile examination gloves, 10 blood pressure monitors for adults) were procured to support quality of care in health facilities.

Guinea:
45 health providers were trained in post-partum family planning, and in WHO guidelines for reproductive health care during the COVID-19 pandemic.

Kenya:
21 reproductive health/family planning coordinators were trained in the reproductive/family planning service protocol, and technical support was provided for the development of the country’s family planning blueprint.

Nigeria:
To improve access to SRHR products during the lockdown, a media and partnership with private pharmacies provided communication on the availability of SRHR services and self-care; 21 family planning coordinator trainers and partners were trained in quality of care in family planning, using the reviewed national training manual.

Senegal:
Postpartum family planning (PPFP) and DMPA-SC service providers participated in four training sessions of 15 participants each, in eight districts.

Sierra Leone:
100 manual vacuum aspirators for safe abortion services and other SRH accessories were procured to support quality of care in health facilities. National clinical guidelines for the management of survivors of sexual and gender-based violence were developed and disseminated, in addition to COVID-19-adapted national infection prevention and control training guidelines.

To increase visibility and raise awareness on reproductive and maternal health issues, in 2021, WHO AFRO engaged in social media campaigns (including for self-care in contraception), reaching at least 2.1 million people across several countries.

Similarly, social media and the internet were used for campaigns in Nigeria and Cameroon, leading to a notable increase in digital health platforms providing family planning and other SRH commodities. The impact of these traditional and social media campaigns is still being measured, with anecdotal evidence of their influence among youth and young adults.
Ensuring health workers are free from infection is paramount to any response. This is because they play a key role, not only in the clinical management of patients, but also as guarantors of the application of appropriate infection control measures.

But in 2021, a total of 153,229 cases of infections among health workers were reported in 46 countries in the Region, representing 2.4 per cent of all cases.

<table>
<thead>
<tr>
<th>Country</th>
<th>Number of Cases</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>South Africa</td>
<td>71,113</td>
<td>46.4%</td>
</tr>
<tr>
<td>Kenya</td>
<td>12,717</td>
<td>8.3%</td>
</tr>
<tr>
<td>Algeria</td>
<td>11,936</td>
<td>7.8%</td>
</tr>
<tr>
<td>Zimbabwe</td>
<td>6,015</td>
<td>3.9%</td>
</tr>
<tr>
<td>Namibia</td>
<td>5,316</td>
<td>3.5%</td>
</tr>
</tbody>
</table>

Many health workers were contaminated because they felt a false sense of security upon vaccination and ceased to maintain high levels of public health prevention behaviours.

Lessons learnt

HIV scale-up contributes to COVID-19 strategy

Many health programmes suffered considerable setbacks and virtual paralysis during the COVID-19 pandemic. However, starting in 2021, countries resumed and scaled up health services, and routine immunization; several lessons in scaling up services such as HIV have been highly relevant to the design and implementation of a ‘test and treat’ strategy for COVID-19.

First, political commitment is crucial to creating an environment that is conducive to the development of appropriate policy, operational guidelines, and protocols that are in line with scientific evidence and international guidelines.

Second, engaging communities is critically important. We’ve learnt that to reach populations most severely impacted by HIV, it is important to understand their needs and preferences. As HIV programmes have evolved, it has become clear that one size does not fit all, and services should be adapted based on client preferences, so that they are acceptable and accessible. For example, programmes now offer a wide range of HIV testing options, with point-of-care services widely available at health facilities, in the community, and in the home; provided at both mobile and fixed sites, integrated with other services, on various days of the week and at different hours of the day; and including self-testing. In addition, we’ve found that improving linkage from testing to treatment, including providing HIV treatment at the place of testing, improves treatment initiation. This same approach to providing person-centred testing and treatment services should be used for COVID-19.

Community engagement is also important to creating demand for services. By partnering with various populations, listening to their concerns, and providing them with clear and accurate information, providers can overcome scepticism, dispel myths, and instil trust in affected communities. As was the case with HIV, creating demand for services will be essential to ensuring a high uptake of testing and treatment for COVID-19.

Third, it is necessary to strengthen all pillars of the health system, to streamline supply chain systems for laboratory commodities and medications, through investment in forecasting, procurement and distribution, to prevent stockouts, and to employ task-shifting to address human resource constraints, whereby basic services, such as adherence counselling and support, medication delivery, and contact tracing are provided by lower-level cadres and lay workers, so that more specialized professionals can focus on providing care to the severely ill, in need of higher-level services. In addition, providers need to be trained, mentored, and provided with easy-to-follow job aids that outline steps to administer COVID-19 tests, risk-stratify clients and assess their eligibility for treatment. It is also necessary to strengthen laboratory capacity and infrastructure; and to develop health information management systems that collect and integrate COVID-19 data from different sources, in order to provide the information needed for planning and managing health services and ensuring that testing and treatment services are provided to the right people, at the right time and in the right place.

Looking back at the past two decades, we’ve seen that in countries where there has been political commitment, community engagement, and health system strengthening, tremendous progress has been made in scaling up HIV testing and treatment to control the epidemic. We are optimistic that the tremendous investment made in the HIV response can now be leveraged to scale up testing and treatment services for COVID-19 in the African Region.

Andrea Howard, MD, PhD
ICAP at Columbia University

ICAP at Columbia University, a WHO AFRO partner, for nearly 20 years, has been designing and implementing HIV prevention, care and treatment programmes in collaboration with ministries of health and local partners in countries most critically affected by the HIV epidemic.
2.5 Therapeutics

New therapeutic treatments for COVID-19 emerged during the second half of 2021, some of which are described here. The cost of such treatments, however, was often beyond the purchasing capacity of most countries in the Region. Boosting health systems and enhancing case management capacities, in addition to vaccination and basic public health and safety measures, remain the most important strategies for the Region.

Eleven drug treatments are approved by the World Health Organization. Multimodal and case-specific access to therapeutics has already resulted in significant improvement in care, and ranges from pre-exposure treatment, to multiorgan support in critically ill patients. However, pharmacological treatment is not considered on its own, and requires the presence of oxygen therapy, mechanical ventilation, multiorgan support and nursing care for critical patients.

Mortality in critically ill patients with COVID-19 is relatively higher in African countries than in other regions. This is attributed to delayed presentation, insufficient critical care resources and capacities and the attendant comorbidities. More recently, a combination of access to critical care, vaccination and continued public health measures such as social distancing, hand washing, early detection and treatment have helped to reduce the case fatality ratio in the Region from 2.5% to 2.1% over the past year, but there is still a long way to go.

Of keen importance to the response, is the fact that the number of ICU beds across the Region increased from 0.8 to 2 per 100,000 population. Nine countries currently present the highest proportion of ICU beds, i.e., greater than 2 per 100,000 population: Cabo Verde, Congo, Equatorial Guinea, Eswatini, Gabon, Mauritius, Namibia, Seychelles and South Africa. High mortality is also widely associated with an absence of other indicators such as limited capacity in seriously or critically ill patient management, late transfer of patients to the hospital, lack of early detection of serious symptoms, the presence of comorbidities, advanced age, and the lack of trained personnel in hospitals and health centres. To tackle these issues, in 2021, WHO AFRO expanded its data collection system for better investigation and analysis, and more than 90,000 health workers received training in oxygen therapy and management of seriously ill patients.

Bridging availability gaps in therapies

Inequality in access to therapies remains high in Africa. For example, countries in the Region have had limited access to COVID-19 therapeutic drugs, both due to lack of availability on the global market, and high prices. These factors have slowed progress for countries to update national treatment guidelines to include these drugs.

To bridge availability gaps, WHO developed a strategy based on:

1. Webinars to introduce and discuss drugs for Member States
   - Countries were targeted based on population, number of severe and critical patients, risk factors, vaccine coverage rate, equity criteria, vaccination rate, number of cases and other logistic issues.

2. Advocacy with pharmaceutical companies through the ACT partnership to provide equitable distribution of 25,000 doses of Tocilizumab to
   - Benin, Botswana, Cabo Verde, Equatorial Guinea, Eswatini, Ghana, Kenya, Lesotho, Liberia, Madagascar, Mali, Mozambique, Namibia, Rwanda, São Tomé and Príncipe, South Sudan, United Republic of Tanzania, Togo, Uganda and Zimbabwe.

3. Collaboration with Global Fund to procure drugs
   - With each dose costing US$ 180, the Global Fund is an essential partner in drug procurement.

4. Training of health care workers on how to use and administer the drugs
   - As part of case management training, health care workers were guided on the phases of the disease, and how to identify therapeutic needs under each category – mild to severe (see box on available therapeutics).
So far, about 25 of the 47 Member States have expressed interest in Tocilizumab, updating their treatment guidelines. Quite recently, Rwanda started using Baricitinib and the Ministry of Health of Zimbabwe has been in discussions with UNICEF to procure Molnupiravir. The therapeutics allocation project involves drug procurement with the ACT partnership, MHP, WHE, Global Fund and UNICEF. Already, Ghana, Uganda and the United Republic of Tanzania have procured Tocilizumab through the ACT partnership. This has been possible as a result of an agreement with pharmaceutical giant Roche, which has offered ACT-A a supply of Tocilizumab (25 000 vials to become available in the first quarter of the year, with additional supplies being made available later in the year on a quarterly basis) at an advantageous price of US$ 181 per vial. When used in addition to systemic corticosteroids, Tocilizumab reduces the duration of hospitalization and mortality by 50%. Baricitinib is an alternative to Tocilizumab and is used in severe and critically ill patients, while Casirivimab and Imdevimab are used in high-risk patients to prevent hospitalization. In December 2021, Rwanda received 14 000 tablets of 4 mg Baricitinib in donation from Direct Relief, a humanitarian agency.

Besides these new drugs, the primary means of treatment of respiratory issues associated with COVID-19 is oxygen. Although priority has been given to the improvement of the procurement and supply of oxygen to countries, issues remain with national production capacities, storage and equipment.

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**Current recommended therapeutic trajectory**

Strategies to control contagion levels, circulating viral load, and patient mortality are centered on vaccination, isolation, and a series of mixed treatments, which have been shown as a whole to reduce mortality from this infection. Treatments range from the pre-exposure phase, for preventive treatment in unvaccinated or seronegative patients, to the final stages of the disease.

**FIGURE 8: Therapeutics timeline**

- **Pre-exposition**
  - CASIRIVIMAB / IMDEVIMAB
- **Post-exp**
  - Mild without O2
- **Mild**
  - DEXAMETHASONE
- **Moderate**
  - HEPARIN
- **Severe**
  - TOCILIZUMAB
- **Critical**
  - BARICITINIB

Strategies to control contagion levels, circulating viral load, and patient mortality are centered on vaccination, isolation, and a series of mixed treatments, which have been shown as a whole to reduce mortality from this infection. Treatments range from the pre-exposure phase, for preventive treatment in unvaccinated or seronegative patients, to the final stages of the disease.

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Report on the Strategic Response to COVID-19 in the WHO African Region – 1 February 2021 to 31 January 2022
Achieving case management optimization

Case management and critical care capacities were enhanced during the reporting period. While WHO AFRO had followed an ongoing concerted strategy to preposition oxygen supplies and build case management and critical care capacities in COVID-19 treatment, the African COVID-19 Critical Care Outcomes Study (ACCCOS), completed in July 2021, examined countries undergoing resurgence and is scheduled to guide the continued response.

Patient care and clinical outcomes for patients with COVID-19 infection admitted to African high-care or intensive care units

Prospective observational cohort study

64 hospitals | 10 African countries | 3140 patients

- Insufficient critical care resources may have been associated with increased mortality
- Only one in two critical care referrals were admitted. Access to interventions were between 7 and 14 times less than required
- Risk factors associated with mortality include
  - HIV/AIDS
  - Diabetes
  - Chronic liver disease
  - Kidney disease
  - Increasing age
  - Severity of organ dysfunction at admission
- Steroid therapy was associated with survival
- Female sex was not associated with mortality or survival
- Quick sequential organ failure assessment (SOFA) could be used as a triage tool in low-resource environments.

48.2% mortality in critically ill patients with COVID-19 in Africa

11 to 23 excess deaths per 100 patients compared to the global average


WHO – Andre Rugema
A woman receives COVID-19 vaccination in Kigali, Rwanda
2.6 Cooperation, behaviour and risk communication and community engagement

In 2021, the WHO AFRO risk communication and community engagement (RCCE) team worked with national community health workers in various projects, such as advocacy with community leaders and influencers.

In a community-based surveillance Ag-RDT project in six pilot countries, community health workers were deployed to conduct contact tracing and increase awareness about social and public health measures, including vaccine uptake. Community members and health workers also disseminated, throughout the year, hundreds of preventive messages via community radio stations such as Radio Lumière and Aného, in Togo, Radio Mbam, in Cameroon, Racou FM, in the Democratic Republic of the Congo, and Radio Mbam, in Cameroon, Lumière and Anèho, in Togo, to better understand the challenges behind expanding knowledge on COVID-19, and adhering to contact tracing and increase awareness about social and public health measures, including vaccine uptake.

In 2021, WHO AFRO also conducted knowledge, attitudes and practices surveys, to boost RCCE activities, stakeholder mapping was undertaken in several countries, identifying influencers, partners and communities, traditional leaders, women and youth organizations, and health workers’ associations.

<table>
<thead>
<tr>
<th>Country</th>
<th>Monthly trend of COVID-19 protective measures reported by participants surveyed in 2021</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Jan</td>
</tr>
<tr>
<td>Algeria</td>
<td>% of people wearing masks</td>
</tr>
<tr>
<td>Angola</td>
<td>% of people reporting practicing social distancing</td>
</tr>
<tr>
<td>Benin</td>
<td>% of people wearing masks</td>
</tr>
<tr>
<td>Burkina Faso</td>
<td>% of people reporting practicing social distancing</td>
</tr>
<tr>
<td>Côte d’Ivoire</td>
<td>% of people wearing masks</td>
</tr>
<tr>
<td>Cameroon</td>
<td>% of people reporting practicing social distancing</td>
</tr>
<tr>
<td>Democratic Republic of the Congo</td>
<td>% of people wearing masks</td>
</tr>
<tr>
<td>Ethiopia</td>
<td>% of people wearing masks</td>
</tr>
<tr>
<td>Guinea</td>
<td>% of people reporting practicing social distancing</td>
</tr>
<tr>
<td>Kenya</td>
<td>% of people wearing masks</td>
</tr>
<tr>
<td>Madagascar</td>
<td>% of people reporting practicing social distancing</td>
</tr>
<tr>
<td>Mali</td>
<td>% of people wearing masks</td>
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<tr>
<td>Mauritania</td>
<td>% of people reporting practicing social distancing</td>
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<tr>
<td>Mozambique</td>
<td>% of people wearing masks</td>
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<tr>
<td>Morocco</td>
<td>% of people reporting practicing social distancing</td>
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<tr>
<td>Nigeria</td>
<td>% of people wearing masks</td>
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<tr>
<td>Senegal</td>
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<tr>
<td>South Africa</td>
<td>% of people wearing masks</td>
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<tr>
<td>Uganda</td>
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</tr>
<tr>
<td>United Republic of Tanzania</td>
<td>% of people wearing masks</td>
</tr>
<tr>
<td>Zambia</td>
<td>% of people reporting practicing social distancing</td>
</tr>
</tbody>
</table>

TABLE 2: Monthly trend of COVID-19 protective measures reported by participants surveyed in 2021
RCCE as a gamechanger

Risk communication and community engagement continued to be a WHO AFRO priority in its strategy to combat COVID-19. RCCE entails engaging partners, including civil society, community leaders, health committees, religious and community groups, faith-based organizations, traditional leaders (kings and elders), traditional healers, community gatekeepers / influencers and nongovernmental organizations.

Emergency risk communication

Emergency risk communication involves taking stock of the situation, i.e., the level of knowledge of the communities and their socioreligious beliefs. Methodologies developed for this area of communication are similar to those in socio-anthropological studies: closed questionnaires, semi-structured interviews, case histories, group interviews, and observation and listening sessions. The use of this type of method allows for a better understanding of the communities with whom we are trying to engage. The results of the diagnoses are used to develop strategic plans and activity plans to address the needs of the communities.
COVID-19 and the Africa Cup of Nations

A cooperation between WHO and health and sports authorities helped Cameroon plan for the 2021 Africa Cup of Nations (AFCON). Already delayed by two years, this important sports event was almost postponed for a third time due to the COVID-19 pandemic. Thankfully, a bespoke sanitary plan for the games allowed AFCON to go ahead, in a tremendous boost to morale across the continent. Strict sanitary measures were adopted during the games, including mask wearing at all times, in addition to presentation of a vaccination certificate to enter the stadiums. This second item was the biggest challenge, given that with less than 10% overall COVID-19 vaccination rates, Cameroon had not received sufficient doses to cover the high numbers of football fans. In the build-up to the competition, a number of steps were taken:

- 119 vaccination posts were set up near the football stadiums
- Similarly, a comprehensive vaccination campaign took place across the country
- Special community outreach sessions were held, towards avoiding agglomerations during the games
- More testing and genomic sequencing were encouraged and introduced, with PCR testing capacity installed in all 10 of Cameroon’s regions
- More stringent cross-border surveillance was put in place, in addition to case tracking and referrals

Perspective by national partner

COVID-19 – the fourth wave, living with the pandemic another year, and the way forward

The fourth wave of the COVID-19 virus reached Guinea-Bissau a few months after it began in Southern Africa. We watched the emergence of the Omicron variant with trepidation, mostly because setting aside further dedicated hospital beds for COVID-19 patients could risk a full rupture of our already fragile health system. So far, we have managed to keep things under control, no small thanks to our limited but deeply dedicated team of health practitioners, and support from loyal bilateral and multilateral partners and regional community organizations, such as the World Health Organization, UNICEF, ECOVAS/WAHO, UEMOA, World Bank, African Development Bank, Islamic Bank Development Fund, China, Senegal, India, Israel, Portugal, local non-governmental organizations and the private sector. Based on previous health crises, we now have a solid experience in border surveillance and tracking, as well as public health communications and advocacy, both key instruments in pandemic management.

Our national laboratory, which has greatly improved since 2015 during the Ebola virus disease crisis, and the Jean Piaget Institute laboratory here in Bissau, have partnered with the Institut Pasteur of Senegal to produce PCR testing to anyone who presents symptoms, and travellers. At the onset of the pandemic, we secured valuable partnerships with our mobile providers and technology companies, who sent test results and prevention messages by mobile telephone free of charge, greatly decreasing our reliance on burdensome paperwork. In addition, in the past half year, we have managed to increase our oxygen availability, producing oxygen in-country, and procuring the canisters in neighbouring Senegal. On the vaccination front, with support from the COVAX Facility, China, Portugal, the United States and other bilateral partners, we have fully vaccinated 38% of our target population so far. While this figure is low, we have managed to keep our case fatality rate low, at 1.5%. However, because each life given over to COVID-19 is one life too many, this is clearly not sufficient, and we continue to advocate for more consistent vaccine supplies. It’s important to note that while our systems are in place to vaccinate, we do go through considerable lag time between vaccine shipments.

The year 2021 was a difficult one for Guinea-Bissau. For several months, our overworked health system suffered deep paralysis due to strikes by workers demanding better pay and working conditions. Chronically short in leadership, qualified human resources, infrastructural equipment, competencies, and organization, our health system is forced daily to prioritize and make dramatic choices between which lives to save. The multiple and seemingly insurmountable challenges also have an effect on staff morale, a prerequisite for professionalism, teamwork and efficiency.

The onset of COVID-19, while terrible and worrying, presents an opportunity for Guinea-Bissau to strengthen its health systems. Reinforcing coordination mechanisms, institutional collaboration, team spirit and partnerships at all levels, we can, together with real engagement by donors and partners in the COVID-19 response, boost our overall health care delivery. As a medical doctor and a specialist in international health, my commitment to my team on the ground is unassailable. I am proud of our doctors, nurses, laboratory technicians, cleaners and all volunteers who have worked tirelessly in the face of considerable precarity to ensure the spirit of cordiality and attention to patient care that represents the best of the medical profession and our culture.

Plácido Cardoso
Acting High Commissioner for COVID-19 in Guinea-Bissau

MOH Cameroon
Country experience – Zimbabwe

COVID-19 prevention – handwashing in Zimbabwe

General handwashing has improved since the start of the COVID-19 pandemic in Zimbabwe, although access to clean water is still a challenge for some. Health experts have been constantly reminding the public to physically distance, wear a mask, avoid crowds and wash hands regularly with soap and water as a measure to control the spread of COVID-19. In the absence of soap and water, people have been urged to use alcohol-based hand sanitizers.

Handwashing had always been promoted as the first line of defence against diseases such as cholera, typhoid and other diarrhoeal diseases, but provision of handwashing points had not been prioritized until the COVID-19 crisis struck. Now, there are handwashing points at all entry points at health institutions, with health workers taking turns to provide hand sanitizers as a second option.

“Behaviour has changed a lot, especially since the onset of the third wave (July 2021), when we had some staff infected and isolated. Staff are now cognizant of hand washing, although there is room for improvement. Alcohol-based hand rub is also being used frequently after each procedure or when coming in and getting out of different rooms at the clinic,” said Try Kambumbu, sister-in-charge at Nhawa Rural Health Centre in Rushinga, Mashonaland, Central Province.

While the availability of washing points at various institutions made it easier for many to observe COVID-19 guidelines, sustaining them is questionable.

“The uptake of washing hands has improved in the community, but not as desired. This is because some people still think the disease will not affect them. Some people whose relatives have tested positive for COVID-19 have been helping us in community education. ‘The washing of hands is important,’ said a village health worker who preferred to remain anonymous.

Before the COVID-19 pandemic, WHO, working with other partners such as UNICEF, had been supporting the Government of Zimbabwe to raise awareness on the importance of hand hygiene. Through the infection prevention and control pillar, WHO continues to offer technical guidance to promote behavioural change within communities and health facilities, and the results are starting to show.

Vivian Mugarisi
Programme Officer
WHO Country Office Zimbabwe

Vivian Mugarisi
Programme Officer
WHO Country Office Zimbabwe

WHO Zimbabwe – Vivian Mugarisi
2.7 Innovation and technology: thinking outside the box

COVID-19 presented countries across the world with opportunities to innovate in all areas of health care and delivery, from surveillance to monitoring and evaluation and case management. Over the past year, WHO AFRO assisted countries by using integrated hybrid remote sensing and information management to map the spatial variation of surveillance towards pandemic control and management so as to verify the incidence of the disease among social groups and geographic areas, quantify supply needs and gauge distances and distribution times. As a policy convener for global health, WHO encouraged countries to undertake joint strategies for epidemic surveillance and control, engaging them, in partnership with the Economic Community of West African States (ECOWAS), the African Field Epidemiological Network (AFENET) and CDC Atlanta, to establish consistent dialogue virtually.

Cross-border surveillance is a key issue in disease management in the African context, primarily because traditional cross-border migration takes place as part of cultural or seasonal population movements, which may not necessarily happen across national boundaries or official borders. Utilizing the recent experience with the Ebola virus disease, enhanced dialogue among countries in 2021 helped to reinforce information and messaging, and harmonize practices, such as acceptance of PCR or antigen tests, procedures and practices for officers at points of entry, contact tracing, and information to focal points. In addition, WHO engaged with organizations such as the Food and Agriculture Organization of the United Nations (FAO) to ensure that transhumance groups – seasonal migration of pastoral communities – were mobilized about both human and animal health and safety measures, to avoid a human to animal spillover effect, which could further compromise food security.
Technological breakthroughs

A database of one thousand new technologies created for or adopted by countries from the start of the pandemic was compiled and propagated by WHO AFRO to further encourage countries to mainstream innovations for vaccine delivery and to stimulate demand. Among the technologies listed in the database in Senegal, researchers developed an immune-based diagnostic test for COVID-19, which is available for only US$1, and engineering students built a multifunctional medical robot to lessen the load on health care workers. Kenya converted existing factories to mask production, with a production target of tens of millions. Rwanda has used locally assembled drones to increase awareness through in-flight public broadcasts, and robots to screen and monitor COVID-19 patients.

For technologies related to inoculation, WHO AFRO recommendations prioritized six categories: micro-planning, counterfeit detection, vaccination status, vaccination monitoring, safety monitoring and infodemic management. Vaxiglobal5, for example, is working with laboratories in Zimbabwe and Zambia, and airlines and technology companies to devise a safe and approved digital verification system for the immunization status of travellers. After vaccination, a patient is issued a digital certificate with a QR code, instantly verifiable by border authorities. The technology has since been used in Zimbabwe to authenticate COVID-19 test certificates. Another innovation was developed by Zipline company to help deliver blood, vaccines, and other medical equipment using drones to remote areas and other difficult-to-reach places in Rwanda and Nigeria. To date, Zipline has been used to deliver more than one million routine vaccines in Nigeria.

To optimize limited supplies, it is necessary to innovate by creating rapid and efficient distribution and administrative channels for vaccine delivery. In this regard, several countries in Africa have already begun to integrate technologies and digital solutions as part of their vaccine delivery mechanisms. Mauritius, for instance, is using the District Health Information System (DHIS-2) platform to collect data, including for adverse events following COVID-19 immunization (AEFI). Similarly, in Ghana, the e-tracker module in the DHIS-2 platform is used for data capture and vaccination monitoring. Also, a digital application called Med-Safety6 is used to report AEFI. In Rwanda, cold chain capacity has been enhanced with -70°C freezers to store vaccines and innovative Arktek® passive vaccine storage devices for vaccine transportation. Angola has established a digital pre-registration system for targeted individuals, to document vaccination and to send second dose reminders.

FIGURE 9: COVID-19 vaccine delivery innovation categories
Tackling new variants – the COVID-19 challenge

The Omicron variant surprised the COVID-19 response community in several ways, most notably due to the fact that it did not arise from a Delta variant progenitor, but rather, a much older strain from earlier in the epidemic. The unpredictability surrounding virus mutation challenges scientists' ability to ascertain from where or when the next variant will emerge. We also know that while currently thought to be rare, transmission to and from domestic animal sources is also possible, calling for vigilance in surveillance across all communities. While the Omicron variant spread much faster than Delta, and contained a large number of mutations, allowing it to escape a substantial amount of prior immunity, it led to far lower case fatality ratios. While both increased transmissibility and immune escape allow new variants to spread quickly, there is still no demonstrable advantage to lower the severity of the virus. Thus, there is no reason to expect that the next variant to emerge will have this characteristic. In fact, the more immunity a variant stimulates in the population, the more likely it is that a substantially different virus will have the transmission advantage to emerge. Thus, safety protocols must be maintained, as must ongoing vaccination campaigns, to limit the spread of COVID-19 in vulnerable populations.

Resolve to save lives – how previous experience can create innovation

To enhance COVID-19 community screening in the African Region, in October 2021, WHO AFRO launched an eight-country initiative, scheduled to reach some seven million people over a 12-month period in Burundi, Côte d'Ivoire, Democratic Republic of the Congo, Guinea-Bissau, Mozambique, Republic of the Congo, Senegal and Zambia. The programme aims to increase the testing capacity in each participating country by 40%, ensuring that they reach the WHO recommended benchmark of 10 tests performed per 10 000 people weekly. Until the start of this programme, 20 out of 47 countries in the Region had not reached this benchmark, and 14.2% – or one in seven – COVID-19 infections were detected.

Using a “ring strategy” the idea is to interrupt disease transmission, through active case finding by deploying teams in local communities to seek out possible contacts of people who have tested positive for COVID-19 and offer antigen rapid diagnostic tests. To implement the initiative, WHO disbursed US$ 1.8 million to the countries. Pioneered for the eradication of smallpox in the latter half of the 20th century, and used during recent Ebola outbreaks in West Africa and in the Democratic Republic of the Congo, the “ring strategy” targets those living inside a circle of 100 metres radius of the “circle” is scheduled to receive hygiene kits containing face masks and hand sanitizers, and anyone who tests positive will be assessed for the severity of their condition to determine whether home-based or hospital care is required.

The WHO analysis used the COVID-19 calculator developed by Resolve to Save Lives, which estimates infections based on the reported number of cases and deaths and an infection fatality rate grounded in population-based studies. The calculator found that as of 10 October 2021, the cumulative number of COVID-19 infections is estimated to be 59 million in Africa, which is seven times more than the over 8 million cases reported. From the start of the pandemic, COVID-19 detection in Africa was focused on people reporting to health facilities with symptoms, in addition to testing arriving and departing international travellers, leading to large-scale under-reporting, given the high percentage of asymptomatic cases. Since the start of the pandemic, African countries have conducted over 70 million COVID-19 tests, a fraction of the continent’s 1.3 billion population. By contrast, the United States, with about a third of that population, has reportedly administered over 550 million tests, while the United Kingdom, with less than 10% of the population of Africa, has administered over 280 million tests.
Myth buster: mixed data for vaccine hesitancy in Africa

As African countries accelerate the deployment of COVID-19 (coronavirus) vaccines, the question emerges as to whether Africa too will resist vaccination. The COVID-19 vaccine has been rejected by large numbers in Western Europe and the United States, for example. So far, however, low vaccination rates in Africa have been caused by the slow vaccine rollout, supply constraints, structural issues and logistical barriers, with a mixed record on vaccine hesitancy. While this may be expected of a continent of 1.3 billion as culturally and socioeconomically diverse as Africa, the issue may be far more complicated than meets the eye.

Generally speaking, vaccine hesitancy has been attributed to doubts about the safety and efficacy of the vaccines and misinformation about COVID-19. These are key issues that have to do with misinformation on the disease, witnessed from the beginning of the crisis, and which WHO AFRO has been working to dispel. One example of misinformation was that some European countries were suspending the rollout of the AstraZeneca vaccine for safety reasons, which resulted in several African countries refusing those vaccines altogether.

Among reasons that inform vaccine approval is religion, with a recent Geopoll survey in six African countries showing that religious beliefs are a key determinant to vaccine rejection. Close to 90% of respondents in Niger and Liberia said that prayer was more effective than the vaccine.

But perceptions surrounding COVID-19 are not static. For example, between November 2020 and April 2021, polls conducted by partners recorded increases in vaccine hesitancy in Nigeria, Kenya, South Africa, Côte d’Ivoire and the Democratic Republic of the Congo. In Mozambique, vaccine hesitancy decreased in late 2020, only to increase in early 2021. Studies on vaccine hesitancy in Senegal showed a keen relationship between virus-associated mortality and the willingness to vaccinate; the higher the number of deaths directly related to COVID-19, the more people volunteered to protect themselves with the vaccine.
In the area of communication and infodemic management, in 2021 WHO-AFRO engaged with partners in the media, non-State actors, governments, and multilateral and bilateral donors. The principle underlying the communication has been that public health bodies must communicate early, strategically and persistently to curb the spread of the virus, with strong support from community health. No less important is the fact that educated and empowered communities play a vital role in preventing transmission of COVID-19, and community health workers are a gateway to good health.

Working with UNICEF, AFENET, civil society and national public health agencies, WHO-AFRO strengthened contact tracing capacities among community health workers and influencers, expanding and empowering roles, to include symptomatic contact referrals to designated isolation facilities. As part of its partnership with community health, WHO facilitated the procurement of reporting and monitoring forms, pens, digital thermometers, and alcohol-based rub solutions. Several important survey and training sessions were undertaken to inform emergency risk communications, and to understand the drivers of adherence to vaccination and public health and safety measures.

2.8 Communication and infodemic management

INASA-GB, Abílio Cô
Guine-Bissau has long realised the need to engage with people to ensure adherence to public health and social measures. Part of an official communication for social and behaviour change division within the national institute of health (INASA), a team of medical anthropologists, nurses and community health workers travelled across the country in 2021, undertaking more than 100 visits to the country’s most remote communities to discuss COVID-19 and its implications.
Infodemic management

AFRO measured key words and other indicators via media and social media monitoring tools to inform a wider strategy for improving information quality on key COVID-19 related issues: vaccine side effects, use of face masks, and use of non-approved medications, among others.

The African Infodemic Response Alliance (AIRA) worked with members to provide infodemic management support, training 120 people in social media listening and helping to establish infodemic management teams in 20 countries in the African Region. Starting in December 2020 and throughout 2021, WHO AFRO has issued, through AIRA, a social listening report once a week, with the gradual membership of six countries in the scheme. Comprising 14 members belonging to leading governmental and inter-governmental organizations, big data, artificial intelligence and innovation bodies and African-based fact-checking organizations, AIRA continues to consolidate and innovate WHO infodemic management knowledge and capacity. In March 2021, the Alliance launched Viral Facts Africa, a social content hub to produce and distribute digital productions to combat health misinformation online. Viral Facts Africa has produced over 260 different pieces of digital content, disseminated in 34 countries in multiple languages, generating over 111 million views and over 3.3 million interactions. Based on the social listening trends report and others, AIRA’s multilingual video production - 85 English, 62 French, eight Portuguese and three Swahili videos and other pieces of content - reached at least 100 million people, representing an average monthly reach of around 16.5 million and an engagement rate of 45%.

WHO AFRO also conducted training for communication professionals in 10 countries, with a multiplier effect, and eight countries were set up with infodemic management systems. On the academic front, AFRO conducted two qualitative studies, in partnership with two universities in Southern and East Africa, designed to measure the impact of specific infodemic content.

Infodemic

The word blend “infodemic” (information plus epidemic) reflects the outsized effect that new information technologies have had on contemporary health communication. Although the word blend is relatively new, the association between epidemics and misinformation is not, and has been witnessed in other recent epidemics. Accordingly, from the beginning of the COVID-19 pandemic, the disease has been tagged with false or poorly backgrounded or incomplete public information, contributing to considerable confusion among policy-makers and the public alike.
Communications

In 2021, vaccine inequities set the pace for global and regional interest in the COVID-19 situation in Africa, with urgent outreach and advocacy through conventional mass and social media, putting additional pressure on world leaders to commit resources, medical supplies, equipment and personnel.

WHO AFRO’s communication strategy directly responded to the organization’s vocation as a facilitator for the voice of health authorities on the continent, with a view towards enabling the self-determination of each of its 47 Member States in the fight against COVID-19 and beyond.

WHO AFRO’s media relations supported the response by advocating for key issues such as vaccine equity and important response activities such as rolling out rapid diagnostic tests. Forty-seven virtual press conferences were held in 2021, featuring the WHO leadership and guests belonging to partner institutions. WHO AFRO also issued 44 press releases, and organized 397 COVID-19-specific media interviews, resulting in 15,109 quotes from AFRO spokespersons, more than double the previous monthly baseline of 600 quotes.

Issuing 32 newsletters showcasing key elements of the response, including best practices and interviews with experts, WHO AFRO expanded its outreach to ministries of health and United Nations agencies and donors. Twenty-six ministers of health and 70 ministry of health staff opened the newsletters regularly, according to a survey undertaken late in the year.

The WHO AFRO social media platforms - Facebook, Twitter and Instagram - were regularly accessed in 2021 by 1,129,000 followers compared to the previous 600,000. The platforms promoted campaigns and regular posts towards healthy COVID-19 practices such as mask wearing, hand washing and vaccination. The content reached at least 600 million people, with an engagement rate of 48%. English-language Twitter and Facebook numbers grew by 35,000 and 300,000 followers respectively during the first semester of the year, with French language followers reaching 400,000.

Issuing 32 newsletters showcasing key elements of the response, including best practices and interviews with experts, WHO AFRO expanded its outreach to ministries of health and United Nations agencies and donors.

Regularly opened the newsletters, according to a survey undertaken late in the year.

26 ministers of health

70 ministry of health staff

1,129M followers across Facebook, Twitter and Instagram

600M people reached with social media content

35,000 growth in English-language followers

300,000 growth in French-language followers
2.9 COVID-19 operational support and logistics

Following initial difficulties during the first semester, from mid-August, considerable headway was made in COVID-19 supplies and operational support. PPEs remained, in 2021, the most ordered items in comparison to other consortia. And, despite the need for oxygen therapy, as expressed by Member States, only a small amount of biomedical equipment was ordered. Building logistics and procurement capacities within health ministries were also prioritized, and WHO AFRO undertook 30 medical procurement training sessions to ensure fewer service and stock disruptions.

### COVID-19 operational support and logistics

**TABLE 3: Operational support and logistics (OSL) WHO-AFRO supplies breakdown**

<table>
<thead>
<tr>
<th>Item</th>
<th>Status</th>
<th>Under procurement</th>
<th>Delivered</th>
<th>Shipment under preparation</th>
</tr>
</thead>
<tbody>
<tr>
<td>PCR test</td>
<td></td>
<td>3,867,876</td>
<td>13,592,488</td>
<td>49,164</td>
</tr>
<tr>
<td>GenExpert test</td>
<td></td>
<td>667,464</td>
<td>2,096,820</td>
<td>18,200</td>
</tr>
<tr>
<td>RDTs</td>
<td></td>
<td>17,044,725</td>
<td>32,077,225</td>
<td>43,250</td>
</tr>
<tr>
<td>Sample collection kit</td>
<td></td>
<td>85,000</td>
<td>7,404,270</td>
<td>520,200</td>
</tr>
<tr>
<td>PPE component</td>
<td></td>
<td>105,634,005</td>
<td>1,158,660</td>
<td></td>
</tr>
<tr>
<td>Oxygen concentrator</td>
<td></td>
<td>5,581</td>
<td>1,090</td>
<td></td>
</tr>
<tr>
<td>Pulse oximeter</td>
<td></td>
<td>15,656</td>
<td>781</td>
<td></td>
</tr>
<tr>
<td>Ventilator</td>
<td></td>
<td>4,16</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Monitor</td>
<td></td>
<td>1,516</td>
<td>177</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**COVID-19 supplies shipped to 47 countries**

**Total value of US$ 510.6M**

**BIOMEDICAL EQUIPMENT**

- **Oxygen concentrators**
  - Shipped: 5,581
  - To be shipped: 1,090

- **Patient ventilators**
  - Shipped: 416
  - To be shipped: 3

- **Patient monitors**
  - Shipped: 1,516
  - To be shipped: 171

**PERSONAL PROTECTIVE EQUIPMENT (PPE)**

- **105.6M** shipped

**LABORATORY TEST KITS**

- **47.5M** shipped
  - Including: 21.6M

- **Sample collection kits**
  - **7.4M** shipped
  - **605K** to be shipped

**RDTs**

- **32M** shipped

**GeneXpert**

- **2M** shipped

**PCR tests**

- **13.5M** shipped
FIGURE 10–12: Detail of delivery status per country (all consortia)
Personnel deployment

Over the year, lessons learnt from the first year of the crisis encouraged WHO AFRO to continue expert deployment to assist the response both at the Regional and country office levels, but also to work directly with ministry of health counterparts. The graphs below provide a breakdown of the national or international expertise deployed, per area of expertise.

FIGURE 13-14: Cumulative deployments data – number of experts

Breakdown per area of expertise

Breakdown per country
3. Resource mobilization and partnerships
Resource mobilization focused, during the year, on funding the response in a comprehensive manner, securing funds for oxygen production and equipment procurement, distribution and maintenance, vaccine procurement, preparedness and rollout, improved case management and critical care capacities, expanded PCR and antigen testing, genomic surveillance, community engagement, research and innovation, and information management. While vaccine supplies have been secured, covering the cost of undertaking the vaccination rollout, estimated at $5 for every $1 spent on a vaccine dose, is a challenge.

**Income and expenditure**

The WHO African Region COVID-19 response in 2021, designed to lead, coordinate and support countries in battling the pandemic, was enhanced by a 52% contribution of the 80% earmarked from a total proposed annual budget of US$ 525.4 million. In addition to Member State bids, for national action plans and strategic preparedness and response plans, as of end-January 2022, the total funding committed to the 2021 SPRP was US$ 272.47 million.
During the past year, WHO AFRO reprioritized its workplans, by providing technical guidance on increasing oxygen production capacities, procurement and distribution of medical equipment, PPE, diagnostics and therapeutics. It took significant steps in supporting a more aggressive vaccine rollout, by strengthening case management and critical care capacities, and expanding PCR and antigen testing, surveillance, community engagement, research and innovation, and information management. As of 31 January 2022, a total spending of 94% had been realized. Target areas of intervention and implementation aligned to earmarked funds are as follows:

FIGURE 17: Targeted specific areas of interventions / implementation (as of 31 January 2022)
Securing predictable, long-term funding is vital to ongoing support to Member States. COVID-19 and other recurrent outbreaks have confirmed that scaled-up financial back-stopping enhances preparedness for improved response capacities, and strengthens health system resilience. Similarly, a multifaceted integrated programmatic approach with enhanced partnerships at the country and regional levels eliminates duplication, thereby achieving operational and financial efficiency. To garner support for such partnerships, in 2021, WHO AFRO conducted high-level bilateral and leadership meetings with 19 key partners to identify multiple streams of collaborative work for the COVID-19 response.

As a result of the consultations, relationships with traditional and emerging partners were strengthened, with increased bilateral contributions from Belgium, Canada, Denmark, France, Germany, Ireland, Japan, Norway, Switzerland, the United Kingdom of Great Britain and Northern Ireland and the United States of America. In addition, WHO-AFRO engaged 192 non-State actors (nongovernmental organizations, private sector entities, philanthropic foundations, and academic institutions) in its programmatic work, increasing the impact of interventions at the country level and improving partner synchronicity vis-à-vis government priorities. Including non-State actors and civil society organizations means that greater emphasis is being placed on due diligence and risk assessment to ensure organizational integrity. All 47 WHO country offices received training on the framework of engagement with non-State actors and for risk mitigation.

**Update on the engagement of civil society organization (CSO) partners**

- Activities ongoing in IPC / case management, RCCE, vaccination and coordination at regional, national and local levels
- COVID-19 response activities are ramping up in all the targeted countries with inclusive, holistic and innovative actions
- Strong CSO engagement
- Mapping of regional CSO networks active in the area of health
- New networks identified engaging collaboration with CSOs in the initiative

*WHO – Daniel Msirikale*

Dr Tigest Ayesale Mengistu, WHO Representative. The United Republic of Tanzania receives the first COVAX shipment – Press Conference 24 July 2021 at Julius Nyerere International Airport.
### TABLE 4: Contributions received from partners (as of 31 January 2022)

<table>
<thead>
<tr>
<th>Type of organization</th>
<th>Donor</th>
<th>Contribution (US$)</th>
<th>Contribution (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Member States</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Germany</td>
<td>63,864,081</td>
<td>62%</td>
</tr>
<tr>
<td></td>
<td>Department of Foreign Affairs, Trade and Development (DFATD), Canada</td>
<td>49,049,675</td>
<td>48%</td>
</tr>
<tr>
<td></td>
<td>United States Agency for International Development (USAID)</td>
<td>19,718,342</td>
<td>19%</td>
</tr>
<tr>
<td></td>
<td>Ministry of Foreign Affairs, Denmark</td>
<td>6,620,391</td>
<td>6%</td>
</tr>
<tr>
<td></td>
<td>Ministry for Europe and Foreign Affairs (MEAE), France</td>
<td>8,328,210</td>
<td>8%</td>
</tr>
<tr>
<td></td>
<td>Ministry of Foreign Affairs, Ireland</td>
<td>3,619,197</td>
<td>3%</td>
</tr>
<tr>
<td></td>
<td>Ministry of Foreign Affairs, Netherlands</td>
<td>3,171,000</td>
<td>3%</td>
</tr>
<tr>
<td></td>
<td>Federal Public Service of Foreign Affairs, Foreign Trade and Development Cooperation, Belgium</td>
<td>2,075,000</td>
<td>2%</td>
</tr>
<tr>
<td></td>
<td>Norwegian Ministry of Foreign Affairs</td>
<td>2,394,636</td>
<td>2%</td>
</tr>
<tr>
<td></td>
<td>Norwegian Agency for Development Cooperation (NORAD)</td>
<td>2,115,037</td>
<td>2%</td>
</tr>
<tr>
<td></td>
<td>Comoros</td>
<td>1,356,625</td>
<td>1%</td>
</tr>
<tr>
<td></td>
<td>Ministry of Foreign Affairs, Japan</td>
<td>1,315,026</td>
<td>1%</td>
</tr>
<tr>
<td></td>
<td>Government of the Isle of Man</td>
<td>1,118,881</td>
<td>1%</td>
</tr>
<tr>
<td></td>
<td>Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ), Germany</td>
<td>743,243</td>
<td>0.7%</td>
</tr>
<tr>
<td></td>
<td>Mauritania</td>
<td>531,169</td>
<td>0.5%</td>
</tr>
<tr>
<td></td>
<td>Irish Aid</td>
<td>291,375</td>
<td>0.3%</td>
</tr>
<tr>
<td></td>
<td>Laos</td>
<td>162,912</td>
<td>0.1%</td>
</tr>
<tr>
<td></td>
<td>Cameroon</td>
<td>125,418</td>
<td>0.1%</td>
</tr>
<tr>
<td></td>
<td>Ministry of Foreign Affairs, Thailand</td>
<td>74,166</td>
<td>0.07%</td>
</tr>
<tr>
<td></td>
<td>Foreign, Commonwealth and Development Office (FCDO), United Kingdom of Great Britain and Northern Ireland</td>
<td>41,302</td>
<td>0.04%</td>
</tr>
<tr>
<td></td>
<td>Ministry of Development Cooperation and Humanitarian Affairs, Luxembourg</td>
<td>25,882</td>
<td>0.02%</td>
</tr>
<tr>
<td><strong>Intergovernmental organizations</strong></td>
<td></td>
<td>169,264,449</td>
<td>17%</td>
</tr>
<tr>
<td></td>
<td>GAVI Alliance</td>
<td>31,885,877</td>
<td>3%</td>
</tr>
<tr>
<td></td>
<td>European Civil Protection and Humanitarian Aid Operations (ECHO)</td>
<td>13,259,650</td>
<td>1%</td>
</tr>
<tr>
<td></td>
<td>DC for International Cooperation and Development (DEVCO)</td>
<td>11,964,943</td>
<td>1%</td>
</tr>
<tr>
<td><strong>UN agencies</strong></td>
<td>UNDP Multi-Partner Trust Fund (MPTF)</td>
<td>8,661,000</td>
<td>9%</td>
</tr>
<tr>
<td></td>
<td>United Nations Development Programme (UNDP)</td>
<td>8,649,603</td>
<td>9%</td>
</tr>
<tr>
<td></td>
<td>United Nations Office for the Coordination of Humanitarian Affairs (UNOCHA)</td>
<td>4,436,845</td>
<td>4%</td>
</tr>
<tr>
<td></td>
<td>International Organization for Migration (IOM)</td>
<td>1,025,190</td>
<td>1%</td>
</tr>
<tr>
<td></td>
<td>United Nations Mission in South Sudan</td>
<td>460,190</td>
<td>0.5%</td>
</tr>
<tr>
<td></td>
<td>United Nations International Children’s Emergency Fund</td>
<td>246,423</td>
<td>0.3%</td>
</tr>
<tr>
<td></td>
<td>UN to UN</td>
<td>139,687</td>
<td>0.1%</td>
</tr>
<tr>
<td></td>
<td>United Nations Population Fund (UNFPA)</td>
<td>111,400</td>
<td>0.1%</td>
</tr>
<tr>
<td><strong>Other sources, including solidarity fund</strong></td>
<td></td>
<td>23,672,349</td>
<td>2%</td>
</tr>
<tr>
<td></td>
<td>Assessed contributions</td>
<td>14,109,569</td>
<td>14%</td>
</tr>
<tr>
<td></td>
<td>Miscellaneous (COVID-19 pool fund)</td>
<td>659,130</td>
<td>0.6%</td>
</tr>
<tr>
<td></td>
<td>Miscellaneous (contact tracing)</td>
<td>605,000</td>
<td>0.6%</td>
</tr>
<tr>
<td></td>
<td>Solidarity response fund</td>
<td>589,212</td>
<td>0.6%</td>
</tr>
<tr>
<td></td>
<td>UNiTAID</td>
<td>275,520</td>
<td>0.3%</td>
</tr>
<tr>
<td></td>
<td>Miscellaneous (civil society)</td>
<td>212,988</td>
<td>0.2%</td>
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<td><strong>Multilateral development finance institutions</strong></td>
<td></td>
<td>16,543,419</td>
<td>16%</td>
</tr>
<tr>
<td></td>
<td>African Development Bank (AfDB)</td>
<td>11,086,981</td>
<td>11%</td>
</tr>
<tr>
<td></td>
<td>Islamic Development Bank (IsDB)</td>
<td>7,944,633</td>
<td>8%</td>
</tr>
<tr>
<td></td>
<td>World Bank</td>
<td>1,106,717</td>
<td>1%</td>
</tr>
<tr>
<td></td>
<td>International Development Association (IDA)</td>
<td>400,000</td>
<td>0.4%</td>
</tr>
<tr>
<td><strong>Non-State actors</strong></td>
<td>Vital strategies</td>
<td>1,174,500</td>
<td>1%</td>
</tr>
<tr>
<td></td>
<td>Bill and Melinda Gates Foundation</td>
<td>744,252</td>
<td>0.7%</td>
</tr>
<tr>
<td></td>
<td>Foundation for Innovative New Diagnostics (FIN Di)</td>
<td>245,726</td>
<td>0.2%</td>
</tr>
<tr>
<td></td>
<td>Task Force for Global Health</td>
<td>219,000</td>
<td>0.2%</td>
</tr>
<tr>
<td></td>
<td>King Salman Humanitarian Aid and Relief Centre (KSRelief)</td>
<td>185,000</td>
<td>0.2%</td>
</tr>
<tr>
<td></td>
<td>VEOLIA</td>
<td>112,591</td>
<td>0.1%</td>
</tr>
<tr>
<td></td>
<td>Rockefeller Foundation</td>
<td>8,000</td>
<td>0.01%</td>
</tr>
<tr>
<td><strong>Grand total</strong></td>
<td></td>
<td>272,409,887</td>
<td>100%</td>
</tr>
</tbody>
</table>

Report on the Strategic Response to COVID-19 in the WHO African Region – 1 February 2021 to 31 January 2022
WHO AFRO held 16 partner consultations to showcase, coordinate and increase engagement surrounding efforts to mitigate public health and the socioeconomic impacts of COVID-19 at the national and subnational levels. Briefing agendas included a regular update on the vaccine roll-out in the African Region, and new projects focused on genomic surveillance, community engagement and partner coordination. WHO is committed to the core elements of sustainable, predictable, long-term financing for fostering equity, where flexible funding helps to enhance accountability and transparency.

WHO AFRO worked with countries to support applications to a $1.5 billion COVID-19-dedicated portfolio created by the Global Fund for HIV/AIDS, Malaria, and Tuberculosis. To this end, the Brazzaville team, with colleagues in 47 country offices and subregional hubs in Dakar, Libreville, Harare, Nairobi and Ouagadougou, conducted broad-scale (training, guidance) and tailored (individual outreach, application review, funding) interventions for government partners. WHO also worked with the Global Fund to adapt programmatic criteria and widen submission windows. The strong coordination between WHO AFRO and the Global Fund led to more robust submissions surrounding surveillance; national testing strategies; end-to-end supply system; and health systems strengthening, some of which had been absent, underrepresented, or not aligned with WHO guidance.

During the year, response capacity was directly proportional to the availability of goods and services, i.e., difficult access to reliable oxygen supplies, or unavailability of qualified personnel, limited background infrastructure as a base for the installation of COVID-19 treatment centres, among so many others. WHO is grateful to partners and contributors for their continued support. We are committed to making sure our income is used efficiently, effectively and responsibly, making every cent count.

Partner briefings contributed to:

- **Increased** and **strengthened** regional and country **engagements** with partners, including non-State actors
- **Better partner synchronization** response to government priorities
- **Avoiding duplication of roles and efforts**, especially among major regional partners
- **Providing partners** with critical and **strategic health information** to guide regional and country-level interventions
### TABLE 5: Global Fund 2021 COVID-19 Response Mechanism (C19RM) – regional progress

<table>
<thead>
<tr>
<th>Status</th>
<th>#Countries</th>
<th>Countries</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fast track</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Approved</td>
<td>20</td>
<td>Benin, Burundi, Chad, Democratic Republic of the Congo, Ethiopia, Gambia, Chana, Kenya, Madagascar, Malawi, Mozambique, Multicountry – Southern Africa (MOSASWA), Nigeria, Rwanda, Senegal, Togo, United Republic of Tanzania, Zambia and Zimbabwe</td>
</tr>
<tr>
<td>Full-funding</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Approved</td>
<td>30</td>
<td>Angola, Botswana, Burkina Faso, Burundi, Cabo Verde, Côte d'Ivoire, Eswatini, Ethiopia, Gabon, Gambia, Chana, Guinée-Bissau, Kenya, Liberia, Lesotho, Malawi, Multi-country Eastern Africa (IGAD), Multicountry – South Africa (EB), Namibia, Niger, Nigeria, Rwanda, Senegal, Sierra Leone, South Africa, South Sudan, Togo, Uganda, United Republic of Tanzania and Zambia</td>
</tr>
</tbody>
</table>

### TABLE 6: Global Fund 2021 COVID-19 Response Mechanism (C19RM) – regional progress, approved funding

<table>
<thead>
<tr>
<th>Country or multicountry</th>
<th>Total funding requested (US$)</th>
<th>Total funding approved (US$)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Algeria</td>
<td>21 770 443</td>
<td>20 650 086</td>
</tr>
<tr>
<td>Angola</td>
<td>31 649 750</td>
<td>8 180 868</td>
</tr>
<tr>
<td>Benin</td>
<td>8 529 095</td>
<td>8 529 095</td>
</tr>
<tr>
<td>Botswana</td>
<td>66 671 556</td>
<td>53 355 922</td>
</tr>
<tr>
<td>Burkina Faso*</td>
<td>37 498 249</td>
<td>30 010 418</td>
</tr>
<tr>
<td>Cabo Verde</td>
<td>2 385 049</td>
<td>2 385 041</td>
</tr>
<tr>
<td>Cameroon</td>
<td>77 761 389</td>
<td>-</td>
</tr>
<tr>
<td>Central African Republic</td>
<td>40 579 474</td>
<td>-</td>
</tr>
<tr>
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*Based on most recent available data; some amounts are an estimation.*
Background and summary of partners engaged in the COVID-19 response

- Monthly meetings with technical partners (3rd week of the month)
- Information and knowledge sharing
- Direct support to countries

- Monthly meetings with technical partners with regional coverage (first week of the month) including CSO partners
- Exchanges on critical programmatic challenges of health emergencies including COVID-19

- Initial weekly meetings with some specific partners working in the pillars
- Information sharing and exchanges on how to address the technical challenges identified

Dakar and Nairobi subregional partners platform

Regional partners platform on health emergencies

AFRO IMST pillars and sub-pillars partners platform

Non-State actors (NSA) partners and harmonization for health (HHA) platforms

- Quarterly meetings with non-State actors
- Monthly and ad-hoc meetings with Regional Directors
- Information sharing on public health issues for NSA platform
- Decision making platform for the HHA
4. Monitoring and evaluation
During a pandemic, several methodologies are used simultaneously to assist policy-makers to make decisions to safeguard the well-being of the population and on the trajectory of the outbreak. As global specialists in public health management, the WHO team is engaged in assisting countries to collect and analyse global and country pandemic response indicators. Collected and examined vis à vis actions or processes, these indicators show evidence of progress and reveal gaps, in addition to improving accountability and transparency.

Continuous monitoring of the COVID-19 response in 2021 was supported by 28 revised key performance indicators (KPIs) at country and regional levels by week (7 KPIs), month (13 KPIs), quarter (6 KPIs), semester (1 KPI) and year (1 KPI). Three additional KPIs related to infodemic management were monitored at the regional level. While regular KPI reporting remained a challenge, between November 2021 and January 2022 a dedicated monitoring and evaluation team reached out to all country offices, and developed a strategy to capture data generated by partners. To improve data processing and analysis, WHO AFRO’s monitoring and evaluation platform was transferred to the District Health Information Software 2 (DHIS2) - the most commonly used open-source health management information system data platform by countries in the Region. This shift was performed to facilitate interactions and interoperability with national systems. Scheduled for rollout in 2022 to WHO country offices, the new monitoring and evaluation platform is designed to support reporting on the response and beyond.

The COVID-19 strategic preparedness and response plan monitoring and evaluation framework reported on all intervention pillars using key indicators as tracers of the response. The ‘whole-of-organization’ and ‘whole-of-response facets’ approaches gained added importance given the number of political, environmental and socio-economic crises reported, which affected the countries’ response capacities.
5. Standing together to end the pandemic
Valuable financial, material and technical support from partners for the past two years enabled the African Region to mount an unprecedented multipronged response to the pandemic. However, in 2021, vaccine donations were mostly done on ad hoc basis and on short notice, not to mention the short shelf life of those vaccines. This made it challenging for countries to plan vaccination campaigns and increase absorptive capacity.

The actions undertaken in 2021, however, show that the pandemic could be over soon, provided countries stand together. Several challenges do remain, however. They include the need to boost vaccination, the resumption of economic momentum in the face of the virtual collapse of supply chains and production, and, in a multiple crisis scenario, the adoption of a comprehensive approach to building resilience and realizing sustainable development - strengthening health systems, empowering and engaging communities, and addressing the social determinants of health.

Difficult at the best of times, data management and data quality challenges at the subnational and national levels hindered much needed rapid assessments of – and consequent action on – evolving situations. Furthermore, an unknown number of health care and community health care workers were infected, hindering the response.

Despite the increased procurement of oxygen cylinders and concentrators, medical oxygen production and capacity in 2021 did not wholly meet the demand generated by the pandemic. Delivery of equipment and supplies picked up pace at the end of the year, leaving health systems to resolve warehousing and other logistical challenges. These issues were exacerbated by the limited number of specialized medical procurement personnel, required for predicting supply needs to avoid gluts or ruptures. To address this gap, procurement specialists in the Region received virtual training on the procurement of ventilators, bed capacity and case management. Half a million health workers also received IPC guideline training focused on standard and transmission-based precautions, as well as point-of-care support.

Risk communication and community engagement was key in curbing the misinformation surrounding the pandemic across most Member States. A WHO–Africa CDC collaboration combatted misinformation around COVID-19, reaching millions of people across Africa, and weekly reporting of COVID-19 infodemic trends were shared by ministries of health. The initiative engaged health fact checks, explainers, myth busters, and misinformation literacy messages, which were shared on social media platforms. Some initiatives acquired more than half a million followers, reflecting the dynamics of a Region-wide approach to a health emergency response.

Also in 2021, with the onset of the Omicron variant, African economies suffered an additional blow, when important trade partners within and outside the Region imposed travel restrictions, closing borders to specific groups of travellers and suspending flights. A travel risk-based approach, screening at land crossings, reporting test results, quarantine and self-quarantine of travellers were already applied in most Member States, but the surge of Omicron, combined with the Delta variant, compelled countries to increase routine screening at points of entry. With these measures in place, by January 2022, 40 of the 47 countries had comfortably opened international borders to all categories of travellers, on condition that they showed a negative PCR testing and RDT on arrival and subsequent mandatory self-quarantine or quarantine. Seven Member States also required vaccination for domestic travel.

In 2021, WHO-AFRO COVID-19 efforts were based on a whole-of-organization approach, meaning that our team on the ground worked with countries to observe opportunities within the COVID-19 crisis to strengthen health systems within cross-cutting national health strategies, also reflecting regional needs.
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