



# THE FUTURE OF WHO COVID-19 RESPONSE OPERATION IN AFRICA IN 2022

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**WORLD HEALTH ORGANIZATION**  
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## The future of WHO Covid-19 response operations in Africa in 2022

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## Foreword

Over the past couple of months, we have reflected on the future of the response and held extensive consultations at the Incident Management Support Team (IMST) level. With the evolving epidemiological parameters of COVID-19 in Africa, the response actions and lessons learnt during the past two years of the SARS-CoV-2 pandemic will certainly continue to circulate in African countries in 2022 and beyond. As countries on the African continent need to be more prepared and plan to 'live with the virus' for the upcoming two years and after, and at the same time mitigate risks by protecting the most vulnerable populations and those responsible for maintaining essential services, the WHO Regional Office for Africa (WHO AFRO) is anticipating four interim scenarios of the evolution of the pandemic in 2022 and beyond in the Region. The scenarios comprise a continuous trend with the same virus and response actions, a steady trend with similar virus and response actions but varied effects of immunization on the number of cases and deaths, an upsurge of new cases due to a high level of reinfection and a new variant of concern with higher transmissibility and/or virulence (worst-case scenario).

The scenarios are based on parameters and assumptions related to the unique virus characteristics per country, reinfection rates and natural immunity, severity of the disease, the Omicron effect and other variants of concern, current dynamics of vaccination, immunity levels, past events and estimates of underreporting. The combination of these new factors with pre-existing ones (such as the intensity and quality of the response, increasing 'fatigue' of the population

in adhering to public response measures, low rates of vaccination and weak health systems) will determine the quality and impact of the future response to the pandemic.

In preparation for the roll-out of response actions given the predicted scenarios mentioned above, and based on analyses and lessons learnt over the past months, WHO AFRO has identified the following strategic orientations and areas of focus for supporting Member States and partners in responding to the COVID-19 pandemic in Africa in 2022 and beyond: reinforcing testing and genomic/variant surveillance capacities; implementing adapted community-based response actions; increasing oxygen and other COVID-19 case management and treatment capacities from the health system perspective; increasing vaccination; reinforcing COVID-19 M&E, data and intelligence collection; reinforcing and augmenting critical human resource capacities and medical and non-medical supplies; diversifying collaboration with existing and new partners; scaling up fundamental and operational research; and progressively transitioning COVID-19 response capacities to the formal health system.

At the Regional Office, a dedicated COVID-19 core response team will be responsible for coordinating and ensuring the roll-out of the strategic orientation. At the emergency hubs (Dakar and Nairobi), the three intercountry support teams (ISTs) (Harare, Libreville and Ouagadougou) and the WHO country offices (WCOs), a dedicated COVID-19 team will ensure close operational support to countries and coordination of partner support for the COVID-19 response under the established multi-agency technical working groups.

The COVID-19 pandemic has afflicted global humanity at unprecedented levels. Two years after and while starting the third year of COVID-19 response, we need to change and adapt our strategies, tools and approaches to effectively respond in a timely manner to the pandemic in Africa and save more lives.

Dr Matshidiso Moeti,  
**WHO Regional Director for Africa**



## Acknowledgments

This document was developed by the WHO AFRO COVID-19 IMST team under the leadership of Dr Abdou Salam Gueye (Regional Emergency Director) and Dr Thierno Baldé (Regional Incident Manager, COVID-19), who conceptualized and directed the work. The team acknowledges the contributions of Dr Fiona Braka, Dr Yoti Zabulon, Dr Richard Mihigo and Dr Boniface Oyugi on the development of the strategic vision for the future of the WHO COVID-19 response in Africa. The contributions, comments and reviews of the AFRO COVID-19 IMST pillar and subpillar leads, hub leads, COVID-19 incident managers (IMs) in countries and most of the members of the AFRO COVID-19 IMST enriched the document with additional relevant dimensions and elements of the COVID-19 response in Africa for 2022 and beyond.



## I. Context and background

The African Region has been experiencing unprecedented health challenges due to the Coronavirus disease 2019 (COVID-19) pandemic, which have compounded the already difficult task the Region was facing in moving towards universal health coverage (UHC) attainment. Twenty months into the pandemic since the detection of the first case of COVID-19 in the WHO African Region on 25 February 2020 in Algeria, all 47 African Region countries have reported COVID-19 confirmed cases. So far, the pandemic (in the WHO African Region) has evolved in three main waves, with the latest one still ongoing in eight countries<sup>1</sup>, which are currently experiencing a resurgence as of 19 November 2021. The continuing third wave has been characterized by: (i) difficulty in maintaining adherence to preventive measures resulting in clusters of cases in families, schools, workplaces and close settings;<sup>[1]</sup> (ii) the circulation of new variants of concern, especially the Delta variant currently detected in all the countries in the WHO African Region [2] and the Omicron variant detected in 40% of countries in the WHO African Region (19 out of 47)<sup>2</sup>; and (iii) low testing capacities

coupled with inappropriate testing strategies leading to under-detection of cases, particularly those with no or mild symptoms [3]. Equally, we have seen variations in the estimations of cases and deaths across the continent [4]. The World Health Organization's (WHO) assessment showed that only 14.2% – or one in seven – COVID-19 infections are being detected in Africa [5]. It is difficult to compare the number of cases and deaths experienced by the different countries for several reasons including the following: it is more or less likely to detect and report all COVID-19 cases and deaths; use of different case definitions and testing strategies or counting cases differently (for example, mild cases not being tested or counted); handling of time lags differently; differing quality of care or interventions being introduced at different stages of the illness; and the variation of patient profiles (for example, their age, sex, ethnicity and underlying comorbidities) between countries [6].

The introduction and spread of variants of concern (VOC) (such as Alpha, Beta and Delta that are 50%, 25% and 97% respectively more transmissible

<sup>1</sup> Burkina Faso, Cameroon, Congo, Gabon, Guinea-Bissau, Mali, Mauritius and Niger.

<sup>2</sup> Data as of 21 December 2021 sourced from open sources by the WHO AFRO Epi/surveillance team under the Emergency Preparedness and Response Programme.

than the original strain) are happening at different times in different subregions [7]. The variants push many African countries to continue to battle the shutdown of health programmes and clinical services, pandemic fatigue, an exhausted workforce and the consequences of the economic downturn. With ongoing vaccination campaigns targeting first-line responders and adults aged over 50 years, WHO AFRO has assessed the risk of subsequent waves with the same amplitude and severity as the second and third waves as moderate. The latest pooled seroprevalence estimates<sup>3</sup> suggest that up to 65% of the population has some level of conferred immunity (as of September 2021) [8-10]. The current estimates of COVID-19 mortality are 618 000 deaths in the 18 months up to September 2021, but with associated reductions in mortality seen in upper and lower respiratory tract infections,

road traffic accidents and diarrhoeal diseases, among others, due to response actions such as public health and social measures in place in response to the pandemic<sup>4</sup>. The third wave has seen numerous cases of alerts, resurgence, and situations of concern with all these factors. At least nine countries<sup>5</sup> in Africa have already experienced/ are currently experiencing a documented fourth wave [11].

<sup>3</sup> Pooled estimates are based on national, sub-national and local studies from available countries (eight studies in six countries in September 2021).

<sup>4</sup> Estimates provided from an ongoing modelling exercise by AFRO data analytics teams.

<sup>5</sup> Algeria, Benin, Burkina Faso, Egypt, Kenya, Mali, Mauritius, Somalia and Tunisia.

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## II. Progress and achievements of the COVID-19 response in Africa in 2021

The dynamic of the management of COVID-19 has changed significantly over the past year; much has been learnt and achieved. For instance, the first quarter of 2021 saw many countries apply stringent public health measures over extended periods. However, as information on the perceived burden of COVID-19 and the impacts of the response measures are better understood, stringency measures have largely been relaxed in many countries due to a perceived sense of security and a need to resume economic activities [12]. Additionally, 2021 has seen testing and tracing capacities improved in the Region (as of 19 December 2021, more than 87.4 million cumulative tests – mostly by PCR (and/or antigen RDT) – had been done in Africa)<sup>6</sup>. All 47 Member States have PCR testing capacity to detect SARS-CoV-2 (ibid). Additionally, 16 out of 47 countries have ABI testing platforms that are compatible with TaqPath kits for S gene target failure, which may be used as proxy screening for Omicron, and 46 out of the 47 countries of the African Region (except Eritrea) now use antigen RDTs for testing SARS-CoV-2, which has increased testing capacity in countries (ibid).

Some eight countries<sup>7</sup> are currently piloting community-based surveillance to scale up these cost-effective, easy-to-use diagnostics, which helps augment COVID-19 case detection and management in the communities. The programme aims to reach more than 7 million people with rapid diagnostic tests in the next year and increase testing capacity in participating countries by 40%. Early results from hotspot districts in six countries show that 20 584 antigen RDTs have been performed so far, contributing to more than half of all tests in these areas and leading to an additional 364 new cases detected (that is, 10% of all cases reported from those areas)<sup>6</sup>. Additionally, all new cases and their households have been supplied with community infection prevention and control (IPC) kits to prevent secondary transmission, and 97% have been managed through home-based isolation and care. Within the programme so far, 7 505 households have been reached with messaging to prevent COVID-19 infection through compliance with public health and safety measures. Early results from three countries also show that compliance to public health and safety measures in selected hotspot communities improved to 35% on

<sup>6</sup> From the weekly RD's briefing dated 31/12/2021

<sup>7</sup> Burundi, Congo, Cote d'Ivoire, DRC, Guinea-Bissau, Mozambique, Senegal and Zambia

second assessment, up from 18% during the first assessment (ibid).

In terms of human resources, 1 286 WHO staff were repurposed, and cumulatively 809 experts were/have been deployed to 46 countries to support the COVID-19 response in the Region. More than 345 000 community health workers (CHWs) have been mobilized, local leaders and influencers are being trained in 45 countries and more than 270 000 health workers have been trained.

Besides, clinical case management (CM) capacities have been enhanced. For instance, the health workforce has been strengthened through the training of approximately 60 000 health care workers (HCWs) in the countries on clinical care of COVID-19, indications of rational oxygen use and other therapeutics. Additionally, CHWs in several countries have been trained to monitor home-based and isolation care. Furthermore, CM has developed a platform for countries to share experiences on safe and sustainable clinical care, home-based isolation and care (HBIC), triage and referrals to tertiary hospitals through supportive supervision. Moreover, capacities have been bolstered in countries needing extra support and oxygen treatment (such as biomedical equipment). WHO AFRO has mapped out countries using WHO-approved therapeutics and clinical data platforms to enable countries to share clinical information on COVID-19 cases. Besides, there has been an increase in intensive care unit (ICU) beds in nine countries<sup>8</sup>. Furthermore, as of 24 November, 21 countries had been supported with the deployment of international emergency medical teams (EMTs) in the WHO African Region to help manage critical and severe cases, reduce infections among HCWs, enhance IPC activities, risk communication and community engagement (RCCE), roll out vaccination, and decentralize response at sub-national and district levels. Two hundred and sixty-nine experts have been deployed from 10 international teams and one national team, and 5 135 health personnel have been trained. There is an ongoing kick-off implementation of national EMTs in 13 pilot countries and the Regional EMT Training Centre in Addis Ababa to support the scaling-up of national EMTs. The first EMT regional induction

training and the training of trainers for 32 participants took place between 29 November and 5 December in Entebbe (Uganda), targeting three countries<sup>9</sup>.

Additionally, given the increased oxygen demand (estimated 1.3 million COVID-19 patients needing oxygen) since the pandemic began, oxygen plants on the continent have increased from 68 to 115 and oxygen concentrators from 2 600 to 5 100 courtesy of partners and WHO. AFRO has supplied 1 842 oxygen concentrators to 27 countries in the last two months and delivered 12 000 cylinders to 10 countries. Overall, 15 countries have been supported in constructing, delivering and maintaining oxygen plants. Where plants have been set up, the oxygen costs have been reduced by 40%. A series of capacity building activities has been initiated to improve the management of oxygen systems. For instance, 130 biomedical engineers and logisticians across the continent have been trained (a) to calculate oxygen requirements for different scenarios; (b) to map oxygen resources before an influx of cases occurs, and hospitals are overwhelmed; and (c) to work on the maintenance of the various oxygen devices.

Also, through collaboration with partners such as Africa CDC, the COVID-19 sequencing laboratory network was launched in September 2020. It has contributed to improving genomic surveillance on the continent and guided countries to effectively manage and control the pandemic. Today, Africa has produced 60 000 sequences (above the 50 000 target for 2021) since close collaboration was initiated between the network and governments. The establishment of three genomic surveillance centres in the Southern, West and Central/East Africa subregions helped to dramatically scale up sequencing of SARS-CoV-2 and thereby the detection of Delta, its sublineages and emerging variants such as C.1.2 detected in May 2021 in South Africa, B.1.620 currently circulating in Central Africa, B.1.640 first reported in France now seen in Republic of the Congo, and recently B.1.1.529 just reported in South Africa and in Botswana. Genomic sequencing data in South Africa helped determine a change in vaccination strategy in response to the emergence of the Beta (B.1.351) variant, which appeared more resistant to certain vaccines.

<sup>8</sup> Cabo Verde, Congo, Equatorial Guinea, Eswatini, Gabon, Mauritius, Namibia, Seychelles, , and South Africa

<sup>9</sup> Namibia, South Africa and Uganda,

Correspondingly, WHO and the countries are scaling up research activities, notably through some sero-surveillance and operational research studies to better understand the dynamics of the COVID-19 pandemic within the African Region and generate evidence to inform operational planning and understand vaccine effectiveness. For example, 114 studies were planned in 35 countries, with 72 being implemented in 28 countries to date. In addition, collaboration currently exists with the University of Western Cape through an established Regional Centre of Excellence for Genomic Surveillance and Bioinformatics; meanwhile two similar centres to support countries in West and Central Africa (in Nairobi and Dakar, respectively) are also being established.

The vaccination component was added to the COVID-19 response package to increase immunity rapidly, but its roll-out has been slower in most African countries than in other parts of the world. For instance, the WHO African Region has received 474 088 447 doses of vaccines since the first shipment in late February 2021, of which 251 276 407 (53%) were from the COVAX facility while 175 579 899 (37%) was secured through bilateral agreements and 25 448 861 (5.4%) were through AVAT. As of 29 December 2021 in the WHO African Region, a total of 74 080 059 persons (6.6% of the population) were fully vaccinated. Seven countries have already attained 40% coverage (Seychelles 79%, Mauritius 71%, Morocco 61%, Tunisia 47%, Cape Verde 46%, Botswana 42% and Rwanda 41%) while 18 countries have attained 10–40% coverage with Lesotho at the top with 34% [13].

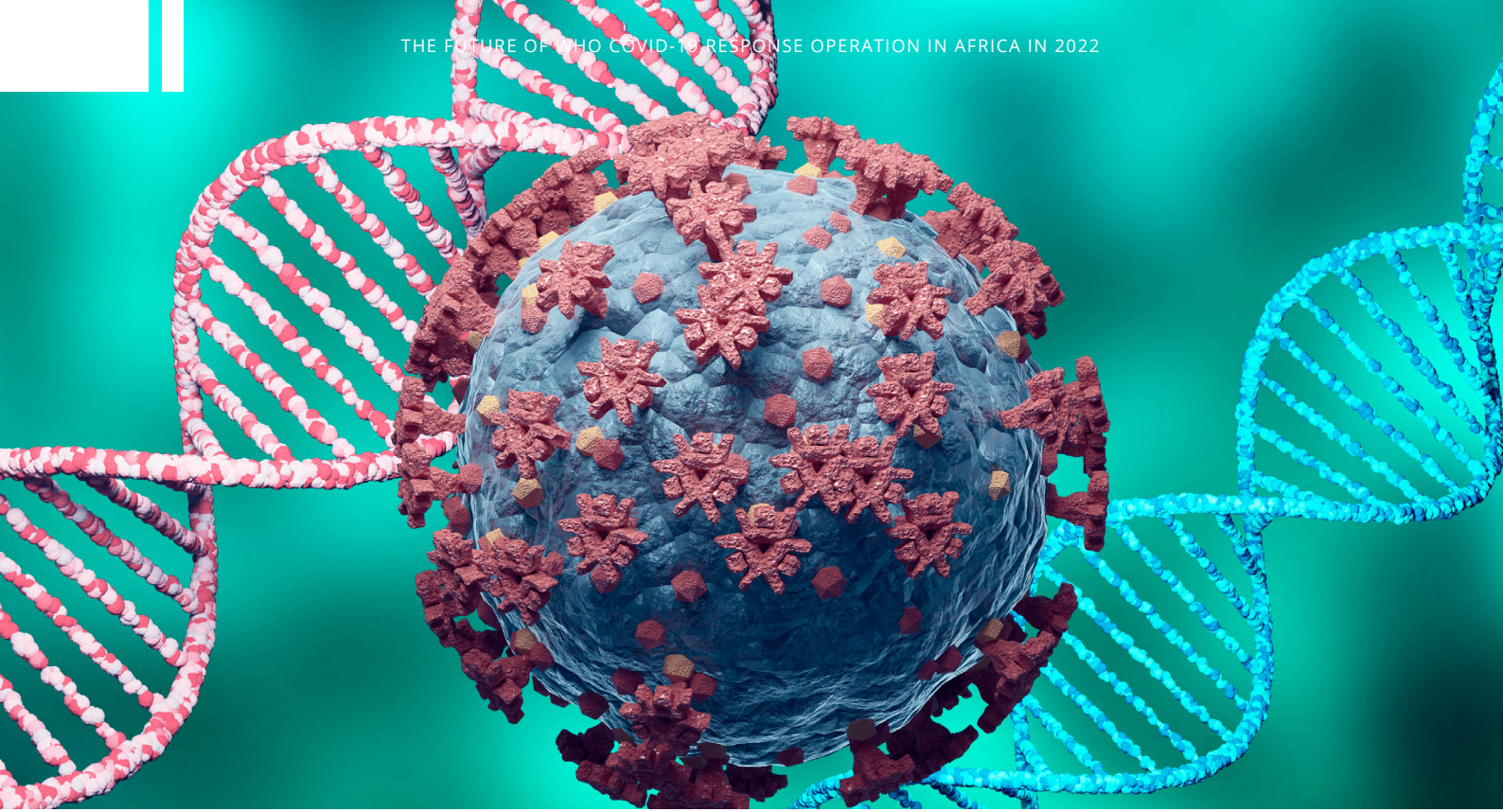
The IPC components have also improved significantly through capacity building and guidelines on IPC interventions in the context of COVID-19 resurgence targeting all 47 countries. The training components have supported best practice implementation of IPC measures in the health facilities and communities using the IPC scorecard. Additionally, they have focused on best practices in personal protective equipment (PPE) supply management and improving vaccination compliance in HCWs. Moreover, regular assessments of IPC have been established in

communities in line with local epidemiology besides monitoring and supervision visits.

WHO AFRO is also working with partners (such as Africa Centres for Disease Control and Prevention, UNICEF, Gavi and fact-checking media organizations) in the context of the Africa Infodemic Response Alliance (AIRA), a unique and independent platform and network for sharing science-based facts on health and countering misinformation. It has helped countries set up platforms to apply infodemic response methods developed by over 1 300 experts from various disciplines and provides support to the Region including targeted support to eight priority countries<sup>10</sup>. Through the programme, narratives related to COVID-19 variants have increased significantly in Angola, DRC, Kenya, Nigeria, Senegal and South Africa, and these conversations continued to dominate in the week ending 4 December 2021.



<sup>10</sup> Angola, the Democratic Republic of the Congo, Guinea, Kenya, Mali, Niger, Nigeria and South Africa.



### III. The future of the COVID-19 response in Africa in 2022 and beyond

The IMST structure has been premised on Emergency Response Framework (ERF) [14] guidance which is applicable for all graded emergencies but inadequate in a pandemic where all the countries need support at the same time. Currently, the response uses a strategic approach that mobilizes and repurposes staff from all clusters to help meet the increased demand. There has been timely support to countries to operationalize the management structure for the in-country response as defined in the country plans. The IMST preparedness structure at WHO AFRO was rapidly transformed into an IMST response structure, following the first few cases reported. It facilitated early response in all 47 Member States. In most countries, the incident management team (IMT) established at WHO country offices (WCO) was used as an example to set up a ministry of health (MoH) incident management structure/emergency operation centres (EOC).

Considering the epidemiological evolution of COVID-19 in Africa, the response actions, accomplishments and lessons learnt during the past one and a half years, it is certain that SARS-CoV-2 will continue to circulate in African countries in 2022 and beyond. In this regard, countries on the African continent need to be

more prepared and plan to 'live with the virus' for the upcoming two years and after; they should at the same time mitigate risks by protecting the most vulnerable people and those responsible for maintaining essential services. Based on the literature review and previous modelling exercises conducted globally and regionally [15-18], three new factors might impact the evolution, dynamic and intensity of the COVID-19 pandemic in Africa in 2022 and beyond: (i) the risk of reinfection of people who have already been affected by the COVID-19 [19, 20]; (ii) the level of acquired immunity of the population either through natural infection and the vaccination [21, 22]; and (iii) the occurrence of new variants of the SARS-CoV-2 with higher transmissibility, virulence and/or capacity to escape immunity induced by prior infection or vaccination [23, 24]. These factors, together with the evolution, are not specific to Africa; they are global. However, the African continent is of concern because of the traditionally weak health care systems.

WHO AFRO is anticipating four interim scenarios of the evolution of the pandemic in 2022 and beyond in the Region. The scenarios are based on parameters and assumptions of the unique virus characteristics per country including transmissibility (driven by attack rate, and country-

specific socio-ecological factors [population density, population mobility and personal hygiene safety]); reinfection rate (different for vaccination (9 months) and natural immunity (6 months)); severity of disease (driven by burden of hypertension, physical inactivity, age and HIV burden); Omicron effect (reduced reinfection rate [estimated 20% higher reinfection]); current dynamics of vaccination; variants of concern each with unique characteristics (new epidemics); immunity that leads to a 90% reduction in severity/death for future reinfections; future patterns are informed by past events; and many cases and deaths are not reported/hidden (due to multiple reasons). The combination of these new factors with other pre-existing ones (such as the intensity and quality of the response, increasing ‘fatigue’ of the population in adhering to public response measures, low rates of vaccination, weak health systems) will determine the quality and the impact of the future response to the pandemic.

### 1- Scenario 1: Continuous trend with similar virus and response actions (status quo), with no reinfection – optimistic scenario but highly unlikely

At the current levels of community engagement in adhering to public health response measures, the current COVID-19 reinfection status for each country in the Region and the slow vaccination progress, the pandemic is predicted to continue spreading in African countries at a moderate level with the presence of upsurges during some specific periods (such as cold/winter seasons, festive periods, events with mass gatherings such elections and major sports events) as shown in Figure 1. However, it is unlikely that the peaks seen in the past two years would recur. Additionally, mortality would be lower than has been experienced so far because the most vulnerable groups were prioritized for vaccination in the early phases of the roll-out. Given the evidence that scaling up vaccination did not prevent subsequent waves of infection but did reduce deaths and hospitalization [25], in this scenario WHO will work with Member States to enhance community and hospital surveillance and response capacities during low-level transmission periods and respond in a timely and effective manner during the upsurge of cases.

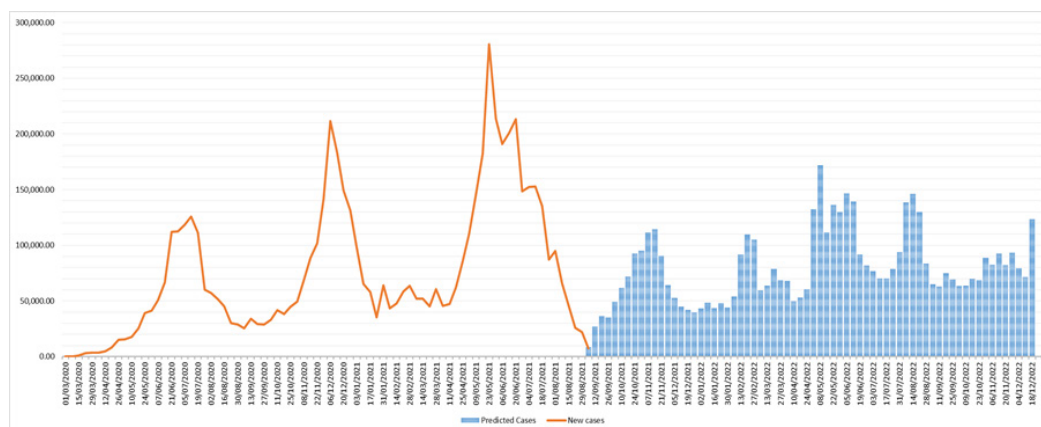


Figure 1: show predicted scenario 1 at the current level of adherence to public health measures, rates of contacts, re-infection, variants and immunisation levels; the disease is predicted to remain in the community, though with lower peaks in 2022

### 2- Scenario 2: Continuous trend with similar virus and response actions but varied effects of immunization on the number of cases and deaths

This scenario envisages a continuous trend with similar virus and response actions (status quo) but a varying status of immunization (at 0%, 30%, 68% and 85%) as shown in Figure 2 and Figure 3. If immunization were at 0%, then 2.64% of the population would be infected in the African Region by the end of 2022. These proportions would change to 1.85%, 0.93% and 0.48% for 30%, 68%, and 85% immunization levels,

respectively (Figure 2). The percentage reduction of mortality would be proportional to the various immunization levels, with variations from country to country as shown in Figure 3. The situation varies across different countries due to their inherent characteristics and the variants of the virus therein.

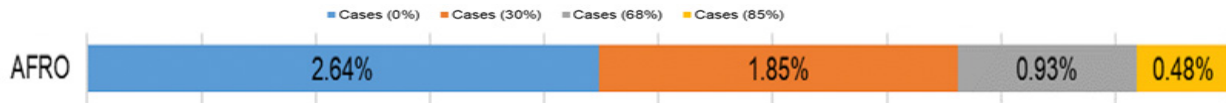


Figure 2: Cases as a percentage of the population at different levels of immunization at the end of 2022

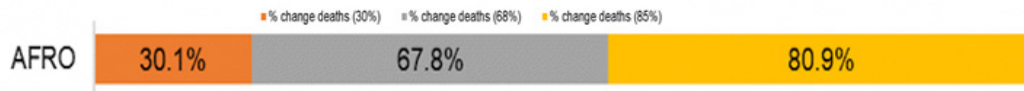


Figure 3: Percentage reduction of deaths among reported cases with varying levels of immunization

### 3- Scenario 3: Upsurge of new cases due to a high level of reinfection

The average level of reinfection (within one year) in the African Region varies from 5% to 20%, given the current rate of VOCs, vaccinations, and other parameters described above. However, countries like Seychelles have experienced the highest reinfection rate at 60%, while South Africa has had a 40% reinfection rate. A 40% or 80% reinfection rate implies an important changing dynamic of the pandemic in Africa with higher peaks in 2022, as shown in Figure 4 and Figure 5.

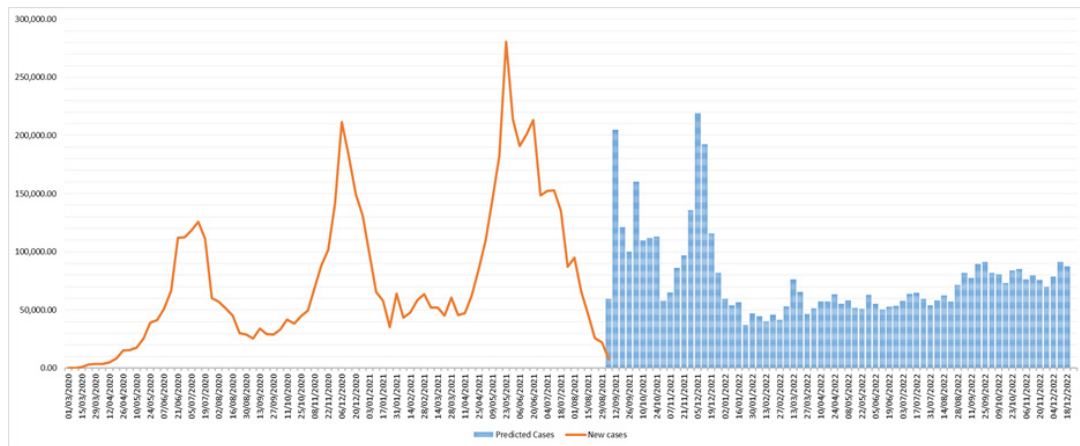


Figure 4: Predicted scenario 2 with risk of reinfection at 40%

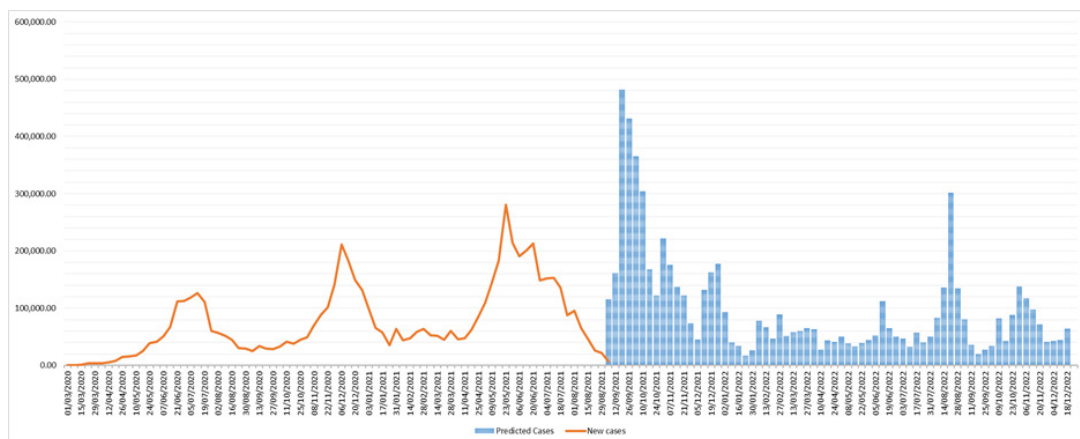


Figure 5: Predicted scenario 2 with risk of re-infection at 80%

In this scenario, WHO AFRO will support Member States to develop and implement strategies for scaling up community-based response actions to limit transmission in high-risk localities (breaking the chains of community transmission) and prevent the importation of cases. It is important to realize that certain measures, such as wearing masks in crowded, poorly ventilated spaces and physical distancing will need to be enhanced even among the vaccinated population, particularly to protect vulnerable groups. Additionally, vaccination strategies, including additional or booster doses, will depend on who gets reinfected and how the use of additional and booster doses will be prioritized in supply-constrained situations.

#### 4- Scenario 4: A new variant of concern with higher transmissibility and/or virulence (worst-case scenario)

Given the continuous circulation of the virus, there is a risk of mutation of the virus with the occurrence of new, more transmissible and/or virulent variants, which can lead to severe disease and deaths. More variants affecting transmissibility are highly likely, and the resultant scenario is as shown in Figure 6.

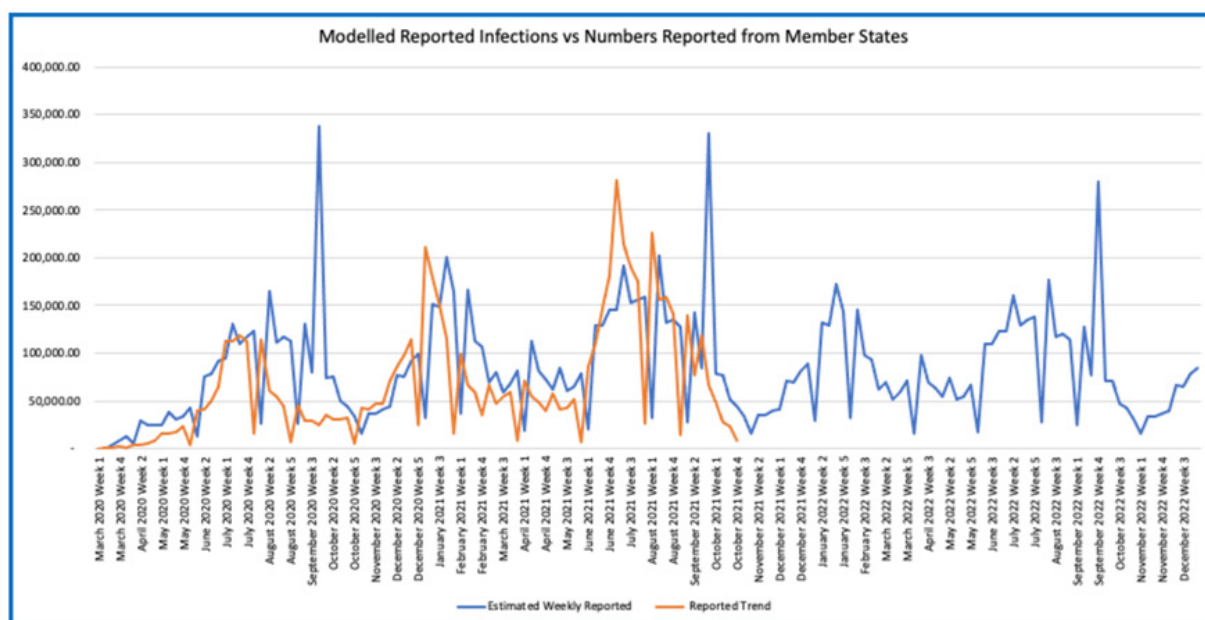


Figure 6: Predicted scenario 3 with the introduction of a new variant

In this scenario, more resources and efforts need to be mobilized by WHO to support Member States to respond by limiting the transmission of the disease, increasing the treatment capacities, and scaling up surveillance of the variants. Also, vaccination strategies will need to be revised, depending on the virulence of the variant, the most affected segments of the population and the immune escape potential of the variant.



## IV. Main strategic orientations of the COVID-19 response in Africa in 2022 and beyond

The overall objectives of the WHO/AFRO EPR Department are to help ‘reduce the health consequences of public health emergencies... by effective national and international risk reduction, preparedness, alert, response and recovery actions.’[26] The last one and a half years have seen intensive response operations in the African Region under the IMST with core emergency response activities, including the deployment of critical experts in all the different response pillars, mainly to support coordination, surveillance, IPC, laboratory, CM, risk communication and community engagement (RCCE) and vaccine deployment, in addition to supplies, equipment and the provision of guidance documents.

In preparation for the rolling out of response actions given the predicted scenarios mentioned above, and based on analyses and lessons learnt over the past months, WHO AFRO has identified the following strategic orientations and areas of focus for supporting Member States and partners in responding effectively in a timely manner to the COVID-19 pandemic in Africa in 2022 and beyond:

1. reinforcing COVID-19 surveillance capacities (hospital surveillance for new cases and essential service implications) and scaling up COVID-19 testing and genomic/variant surveillance capacities;
2. defining and implementing adapted community-based response actions;
3. increasing oxygen and other COVID-19 CM and treatment capacities from the health system perspective;
4. increasing the vaccination uptake through community engagement, advocacy and ownership and updating vaccination strategies and targets, based on the evolving epidemiological scenario and on emerging evidence on the performance of vaccines, and their effectiveness against different variants;
5. reinforcing COVID-19 M&E, data and intelligence collection and use for orienting and guiding response actions;
6. maintaining and reinforcing critical human resource capacities in WCOs and Member State countries to respond to an upsurge of COVID-19 cases;
7. increasing medical and non-medical supplies and other materials and equipment for addressing operational needs in a timely manner as required by Member State countries;
8. reinforcing and diversifying collaboration and coordination with existing and new partners (academia, regional economic and political entities, CSOs and private sector organizations);
9. reinforcing and scaling up fundamental and operational research to guide response actions;
10. progressively transitioning COVID-19 response capacities to the formal health system.





## V. Proposed structure for supporting the implementation of the COVID-19 response in Africa in 2022 and beyond

Two years into the COVID-19 response based on Incident Management System (IMS) principles and approaches, and given the feedback and lessons learnt from the ongoing intra-action review (IAR) of the IMST, it is imperative to define a more adapted and agile response structure that can manage the future COVID-19 response both at WHO AFRO, the emergency hubs, and WHO country offices (WCOs). Additionally, establishing a core and agile team solely dedicated to COVID-19 response at WHO AFRO, the emergency hubs, and WCOs will improve response effectiveness and address identified challenges. The team will collaborate with various clusters of the Regional Office and other units and sub-units in WCOs supported by solid epidemics intelligence.

### 1. Core COVID-19 response team in the Regional Office in Brazzaville

In the WHO Regional Office, a dedicated COVID-19 core response team will be responsible for defining and ensuring the strategic orientation and rolling out of the COVID-19 response/recovery operation. The team will be composed of **9-10** core staff (with fixed-term or temporary assignments) covering the following functions:

- leadership and coordination
- country focal point coordinator
- surveillance and epidemiology

- health operations and technical expertise (including CM, RCCE/infodemics management and communication, EMT, IPC and laboratory support)
- vaccination
- health systems and continuity of care
- operational support and logistics
- monitoring and data management
- management and general administration.

Each of the core functions and staff will be supported by consultants whose roles will be defined based on the operational needs. Some of the functions mentioned above might include specific cells to support the roll-out of effective supportive response actions.

The core COVID-19 regional response team will be fully dedicated to the pandemic response and will report to the EPR Director or to any other delegated entity.

### 2. COVID-19 response teams in the hubs and the ISTs

At each of the emergency hubs of Nairobi and Dakar, and the three ISTs in Harare, Ouagadougou and Libreville, a dedicated COVID-19 team will ensure close operational support to countries and coordination of partner support to COVID-19 response under the established multi-agency technical working groups (surveillance and

resurgence monitoring, laboratory support, CM, IPC, operations support and logistics (OSL) and RCCE). The team will have **two hub COVID-19 focal points** (fixed-term or temporary assignments) and **one vaccination coordination focal point based in the ISTs** and be supported by consultants covering the following functions:

- surveillance and resurgence monitoring
- CM
- IPC
- laboratory support
- RCCE
- OSL
- data and information management.

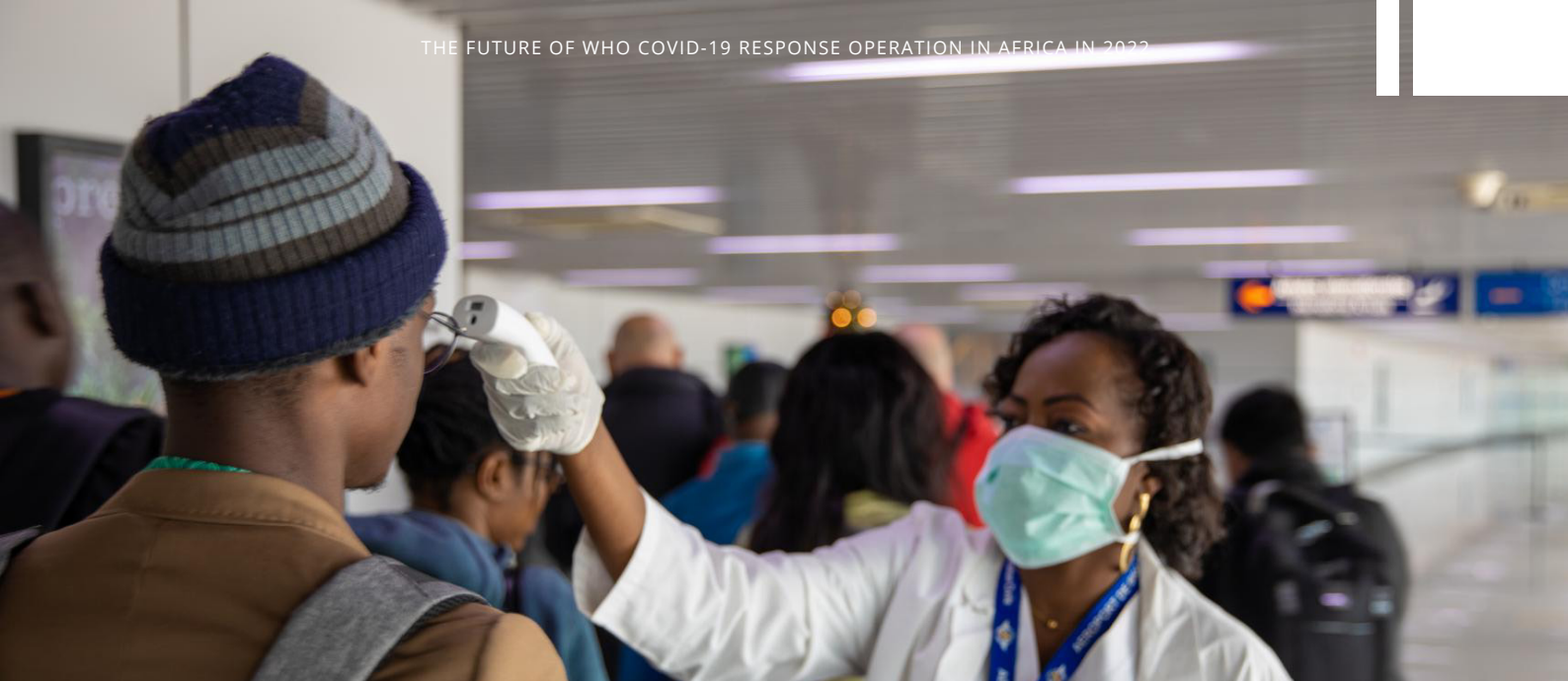
The hub COVID-19 focal points will coordinate the identified core team of consultants/officers (defined based on the dynamic of the pandemic) responsible for directly rolling out and monitoring response actions in countries in different areas of expertise and coordinating partner inputs and response in the different areas. Other core work for the focal points will be partnership support, while at ISTs, the focal point's role will include vaccination coordination.

### 3. COVID-19 response team in the WCOs

In the WCOs, the dedicated COVID-19 team will require a minimum of **6-9 international/national staff/consultants** to cover the following functions:

- management of the team
- surveillance
- CM
- RCCE
- laboratory support
- IPC
- logistics
- data and information management
- vaccination coordinator (except for island nations; or two in fragile and large countries).

Upon the validation of this structure by Senior Management of the Regional Office, additional work will be performed to select the core team members in the Regional Office, hubs and country offices with the objective of establishing a dedicated, effective and agile team by January 2022.



## VI. Reference

1. Van Zandvoort, K., et al., Response strategies for COVID-19 epidemics in African settings: a mathematical modelling study. *BMC medicine*, 2020. 18(1): p. 1-19.
2. World Health Organization. COVID-19 & genomic surveillance in Africa. 2021 (<https://whotogo-whoafrocmaster.newsweaver.com/jku37xzkcl/mydao5cidpby48iiujdam4?lang=en&a=6&p=60363193&t=32081217>, accessed 14 November 2021)
3. Jacobs, J., et al., Implementing COVID-19 (SARS-CoV-2) Rapid Diagnostic Tests in Sub-Saharan Africa: A Review. *Frontiers in Medicine*, 2020. 7(684).
4. Burki, T.K., Undetected COVID-19 cases in Africa. *The Lancet Respiratory Medicine*, 2021.
5. World Health Organization. Six in seven COVID-19 infections go undetected in Africa. 2021 (<https://www.afro.who.int/news/six-seven-covid-19-infections-go-undetected-africa>, accessed 22 November 2021)
6. World Health Organization. Estimating mortality from COVID-19. 2020 (<https://www.who.int/news-room/commentaries/detail/estimating-mortality-from-covid-19>, accessed 22 November 2021)
7. World Health Organization. Tracking SARS-CoV-2 variants. (<https://www.who.int/en/activities/tracking-SARS-CoV-2-variants/>, accessed 24 November 2021)
8. Arora, R.K., et al., SeroTracker: a global SARS-CoV-2 seroprevalence dashboard. *The Lancet Infectious Diseases*, 2021. 21(4): p. e75-e76.
9. Bergeri, I., et al., Global epidemiology of SARS-CoV-2 infection: a systematic review and meta-analysis of standardised population-based seroprevalence studies, Jan 2020-Oct 2021. *medRxiv*, 2021.
10. World Health Organization. Coronavirus disease (COVID-19) technical guidance: The Unity Studies: Early Investigation Protocols. The Unity Studies: WHO Sero-epidemiological Investigations Protocols 2021 (<https://www.who.int/emergencies/diseases/novel-coronavirus-2019/technical-guidance/early-investigations>, accessed 22 December 2021)
11. Africa CDC. Outbreak Brief 95: Coronavirus Disease 2019 (COVID-19) Pandemic. (<https://africacdc.org/download/outbreak-brief-95-coronavirus-disease-2019-covid-19-pandemic/>, accessed 19 November 2021)
12. World Health Organization, Progress Report on the Strategic Preparedness and Response Plan for COVID-19 in the WHO African Region: 1 February to 31 July 2021. 2021, WHO Regional Office for Africa: Brazzaville.

13. World Health Organization. WHO AFRO Covid-19 vaccine supply and uptake ME daily update. Africa COVID-19 dashboard 2021 (<https://rebrand.ly/WHOAFRO-covid-19-vaccine-Update>, accessed 19 November 2021).
14. World Health Organization. Emergency response framework (ERF): 2nd Edition. 2017 (<https://apps.who.int/iris/bitstream/handle/10665/258604/9789241512299-eng.pdf>, accessed 2 June 2021)
15. Gilbert, M., et al., Preparedness and vulnerability of African countries against importations of COVID-19: a modelling study. *The Lancet*, 2020. 395(10227): p. 871-877.
16. Frost, I., et al., Modelling COVID-19 transmission in Africa: countrywise projections of total and severe infections under different lockdown scenarios. *BMJ open*, 2021. 11(3): p. e044149.
17. Adegboye, O.A., et al., Change in outbreak epicentre and its impact on the importation risks of COVID-19 progression: A modelling study. *Travel Medicine and Infectious Disease*, 2021. 40: p. 101988.
18. Adekunle, I.A., et al., Modelling spatial variations of coronavirus disease (COVID-19) in Africa. *Science of the Total Environment*, 2020. 729: p. 138998.
19. Jain, V.K., et al., Elucidating reasons of COVID-19 reinfection and its management strategies. *Diabetes & Metabolic Syndrome: Clinical Research & Reviews*, 2021.
20. Bongiovanni, M. and F. Basile, Reinfection by COVID-19: a real threat for the future management of pandemic? *Infectious Diseases*, 2020. 52(8): p. 581-582.
21. Saad-Roy, C.M., et al., Immune life history, vaccination, and the dynamics of SARS-CoV-2 over the next 5 years. *Science*, 2020. 370(6518): p. 811-818.
22. Spellberg, B., T.B. Nielsen, and A. Casadevall, Antibodies, immunity, and COVID-19. *JAMA Intern Med*. Published online November, 2020. 24.
23. Vasireddy, D., et al., Review of COVID-19 variants and COVID-19 vaccine efficacy: what the clinician should know? *Journal of Clinical Medicine Research*, 2021. 13(6): p. 317.
24. World Health Organization. The effects of virus variants on COVID-19 vaccines. ([https://www.who.int/news-room/feature-stories/detail/the-effects-of-virus-variants-on-covid-19-vaccines?gclid=CjwKCAiAnO2MBhApEiwA8q0HYTlptf6A0AxIYrjV4m2NK3aLt\\_TvUhJ0UoElcyK4xJ7D0y8dUpPq5xoCkxW8QAvD\\_BwE](https://www.who.int/news-room/feature-stories/detail/the-effects-of-virus-variants-on-covid-19-vaccines?gclid=CjwKCAiAnO2MBhApEiwA8q0HYTlptf6A0AxIYrjV4m2NK3aLt_TvUhJ0UoElcyK4xJ7D0y8dUpPq5xoCkxW8QAvD_BwE), accessed 23 November 2021)
25. Swan, D.A., et al., COVID-19 vaccines that reduce symptoms but do not block infection need higher coverage and faster roll-out to achieve population impact. *Scientific reports*, 2021. 11(1): p. 1-9.
26. World Health Organization. Emergencies. 2021 (<https://www.afro.who.int/health-topics/emergencies>, accessed 22 November 2021)