

Two years of work that can transform the health system in a fragile setting

WHO's response to COVID-19 in Somalia, 2020–2022: road to an inclusive recovery





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Every journey begins with a small step. After 2 years since the pandemic invaded Somalia, we can proudly say that every small step that we took to respond to this crisis in one of the most fragile and fragmented health systems settings in the world, led to a giant leap forward. Our strides have left an indelible mark on the building institutions in the country which can serve the health systems of Somalia for the next decade.

Foreword

Turning crisis into opportunities

Every journey begins with a small step. In past 2 years, since the first case of coronavirus disease 2019 (COVID-19) was officially reported in Somalia, the WHO country office took on the challenge of responding head on to this biggest ever public health crisis in one of the most fragile and fragmented health systems in the world. We can proudly say that every small step that we took to respond to this crisis, along with the health authorities and our partners, led to a giant leap forward. Our strides have left an indelible mark on the building of institutions in the country which can serve the health systems of Somalia for the next decade. At the heart of each decision we took over the past 2 years, the interest and needs of the country in building resilience, sustainability and environmentally friendly solutions were at the centre.

This report looks at some of the key activities that WHO undertook with our partners from March 2020 to March 2022 – 2 years of our work in Somalia responding to the COVID-19 pandemic in this country.

We began leading the response to COVID-19 pandemic alongside the health authorities, at a time when the country's health infrastructure was dilapidated and had no testing facilities for coronavirus diseases. After setting up laboratories for COVID-19 testing, strengthening the disease early warning system to detect and track COVID-19, deploying frontline health workers to trace COVID-19 cases and establishing designated health centres to treat COVID-19 cases, all within the first few months of the emergence of COVID-19 in the country in 2020, we dedicated our work in 2021 to maintaining the public health system that we helped build in 2020. In addition, our work in 2021 focused on innovation, building resilience and delivering results that can help transform the health system. WHO was also engaged in supporting the country to roll out COVID-19 vaccines, improving access to medical oxygen in health facilities and working to offset the disruption to essential health services caused by the COVID-19 pandemic.

In 2021, we also welcomed a technical mission from the WHO Eastern Mediterranean Regional Office which reviewed the quality and effectiveness of our response operations. The mission findings led to a deeper understanding of how we should support the health system to achieve an inclusive recovery. We have learnt that the success of Somalia's health systems recovery from this pandemic will depend on sustainable investment in three main areas:

- 1. Building a strong foundation for a primary health care system that will also support an integrated continuum of care across all levels;
- 2. Maintaining the essential public health functions at the district level thereby building a structure for health security;
- Investing in the health workforce to bridge the current shortage of health workers in the country who are ready to deliver good quality health care across all levels in accordance with the country's evolving health care needs.

From protecting the people at the front line of service delivery to building institutions for an effective public health system, WHO's focus has been to make a long-term impact by utilizing the approaches used to respond to the immediate need to save lives from COVID-19. Guided by science and evidence, and the spirit of solidarity, partnerships, collaboration and coordination, WHO stood firm while seeking innovation and looking for and implementing solutions for each small scale crisis we faced in the past 2 years while responding to this pandemic. WHO has supported Somalia to increase its capacity to care for the health of its people, create a stronger, more robust health system and start on the path to recovery in health.

It is my hope that WHO can build on the work it has done with its partners in 2020 and 2021 to turn around the health system in Somalia. A strong and resilient health system will not only be able to manage the next health crisis in the country better but will also be able to withstand any shock and continue to deliver life-saving services to everyone, everywhere in the country. That is the spirit of universal health coverage and we believe that our work in Somalia over the past 2 years has turned the challenges and crisis into opportunities for the country and its health system to serve its people better.

Dr SK Md Mamunur Rahman Malik WHO Representative to Somalia and Head of Mission

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We have learnt that the success of Somalia's health systems recovery from this pandemic will depend on sustainable investment in three main areas- building a strong foundation for a primary health care system

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a strong foundation for a primary health care system, sustaining the essential public health functions for a new health security architecture, and investing in the health workforce to

bridge the current acute shortage.





Introduction



This is the third report in the series documenting the work of the World Health Organization (WHO) in managing and responding to the coronavirus disease 2019 (COVID-19) pandemic in Somalia. The first of these reports was published in 2020 to mark six months from the start of the pandemic in Somalia, while the second report was published in 2021 to mark one year of the COVID-19 pandemic in the country¹.

This report marks the second year anniversary of COVID-19 pandemic in Somalia. It covers the activities undertaken and achievements made by WHO, together with national and subnational health authorities and other international partners, in responding to the COVID-19 pandemic in Somalia during March 2020 to March 2022 (Fig. 1). In line with WHO's strategic preparedness and response plan for COVID-19, this report is divided in six sections. The first section deals with the coordination and resource mobilization efforts of the country office, while the next four highlight the achievements in: building essential public health services; rolling out COVID-19 vaccines; supporting essential health care; and promoting science-based standards – all while managing the pandemic. The final section of this report suggests a three-pronged approach for recovering from the pandemic and building a resilient, inclusive and equitable health system.

The three reports in this series describe the many stories of the WHO country office in tackling a crisis of an unprecedented scale in a particularly weak and fragile health setting and show how big wins can be achieved if investments are made in the right place.

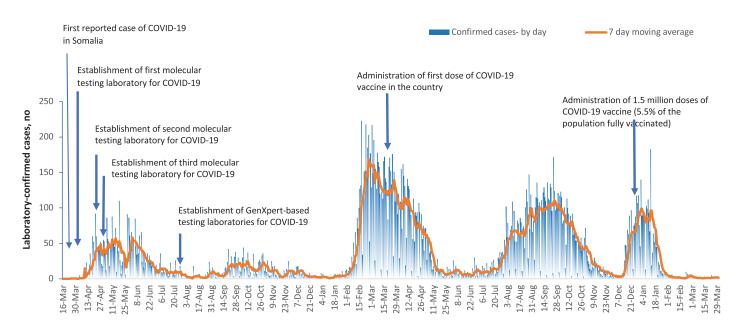


Fig. 1 COVID-19 cases reported in Somalia with 7 day moving average 31 March 2022

Reporting period (March 2020-March 2022)

⁴ These reports are available on the website of the WHO Somalia country office: http://www.emro.who.int/ somalia/information-resources/whos-response-tocovid-19-in-somalia.html

Section 1.

Managing the crisis: leading from the back



On 16 March 2020, Somalia reported and confirmed its first case of COVID-19 in a student returning to Mogadishu from abroad. While COVID-19 spread rapidly through the country in the following weeks and months, the WHO country office swiftly supported the national and subnational health authorities in leading the public health response to the pandemic – the most serious public health crisis the world has witnessed in recent times.

Steering the response through the incident management support team

In its response to COVID-19, the WHO country office used the guidance in the Organization's emergency response framework² to set up its own internal system and structure to coordinate its operational response. The first version of the COVID-19 Emergency Preparedness and Response Plan for the country office was developed in March 2020 jointly with the Ministry of Health and Human Services of the Federal Government, even before the first case of COVID-19 was officially reported in the country.

The incident management support team drew in experts from the health emergency programme as well as staff from various programmes and activities, for example: epidemiological surveillance; case management; logistics; operations; planning; procurement; external relations; and communications. The team met regularly to ensure that WHO's response activities were well coordinated internally and externally, and were executed on time and effectively. The country office helped set up a similar incident management support team at the federal health ministry and virtual meetings were held regularly between the WHO country office and the federal ministry. The coordination structure for incident management was decentralized later in the pandemic by setting up similar state-level incident management support teams, comprising technical staff from WHO and state-level ministries of health.

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The WHO country office used emergency response framework to set up its own internal incident management support team (IMST) to coordinate the operational response to COVID-19 pandemic in Somalia. The country office helped set up a similar incident management support team at the federal health ministry and virtual meetings were held regularly between the WHO country office and the federal ministry to oversee the response. The coordination structure for incident management was decentralized later in the pandemic by setting up similar statelevel incident management support teams, comprising technical staff from WHO and statelevel ministries of health. The success of having a coherent and consistent response across all sectors in the country was very much dependent on effective management of IMST's functions and its day-to-day follow up actions.

Coordinating effective planning and response

The national and subnational health authorities and stakeholders used the coordination structures and platforms of the incident management support team to ensure that the response to COVID-19 was coherent and consistent. The government emergency response plans, developed in March 2020 with support of WHO, provided the key strategic focus and directions for the incident management teams to direct effective planning and response to the pandemic in the country. Other key government institutions, including the Office of the Prime Minister, later joined these incident management support teams to coordinate a nationwide response.

In addition to contributing effectively to the national-level coordination platforms, WHO was the lead agency for the United Nations (UN) Inter-Agency Coordination Committee set up to ensure a harmonized and integrated UN-wide response to COVID-19. WHO was also the lead agency for the medical cluster, the COVID-19 task force and the executive crisis management team set up by the Designated Official of the UN System in Somalia.

² Emergency response framework (ERF). Second edition. Geneva: World Health Organization; 2017 (https://apps.who.int/iris/handle/10665/258604).

Managing COVID-19: learning from doing

"For any health emergency, a country needs several layers of planning and coordination. As the coordinator of the incident management support team for WHO Somalia from February 2020 onwards, I noticed how many experts from different disciplines came together to discuss the most crucial issues related to the COVID-19 outbreak in Somalia. At WHO, all programmes worked together to tackle this enormous challenge. We met weekly to ensure we kept on top of things as we needed to monitor the situation regularly. All our decisions were taken collectively and we updated each other about the progress being made in every meeting of the team. For example, a large number of deaths occurred in an isolation centre due to lack of oxygen. The incident management support team fully explored the situation and identified the issues. As a result, WHO procured and refilled oxygen cylinders but also made a plan to assess the oxygen system in the country. This led to the procurement and installation of oxygen plants in the country. With no plants in 2020, 20 oxygen plants are now installed in the country in 2022 as a result of WHO taking the initiative to innovate. It was a learning experience for all us and we now know how careful planning and coordination can lead to an effective response."

WHO-level incident management support team meetings held to coordinate a multidisciplinary response to the COVID-19 pandemic in Somalia 110 7

Dr Abdulkadir Abdi, National Public Health Officer, WHO Somalia

Strengthening ties with partners

The response to COVID-19 required developing robust mechanisms to track, trace and treat the disease, install infrastructure, equip health facilities, strengthen skills of health care workers, store and analyse data, and spread the right information, among other crucial activities.

Somalia's response has only been possible because of the support of generous donors and collaborative stakeholders. From March 2020 to March 2022, Somalia received US\$ 72 974 926, which was channelled into controlling and preventing the spread of COVID-19 and supporting people suffering from COVID-19.

During this period, WHO forged new partnerships and strengthened existing ones. At the onset of the

pandemic, the European Union (EU) delegation to Somalia joined with WHO to provide urgent logistical and flight support to deliver medical equipment and medical supplies across Somalia and transport COVID-19 biological samples for diagnosis. In addition, the EU gave a multiyear grant for the delivery of response activities, and the European Civil Protection and Humanitarian Aid Operations (ECHO) also provided support. WHO received financial support from the Pandemic Financing Facility of the World Bank to develop and strengthen critical care services in the country as part of integrated service delivery. In 2021, the World Bank delivered an additional US\$ 45 million to the health authorities under its Somalia Crisis Recovery Project. Most of the activities under this grant were implemented by the UN agencies in Somalia, i.e. WHO, United Nations Children's Fund (UNICEF) and International Organization for Migration (IOM). In March 2021, Somalia was one of the first countries on the African continent to receive COVID-19 vaccines donated through the COVAX Facility. Somalia also received donations from Germany, France and the United States of America. China also donated COVID-19 vaccines bilaterally to the Federal Government of Somalia.





Building essential public health functions: transforming the health security structure



Building laboratory capacity

When Somalia's first case of COVID-19 was confirmed in March 2020, the country had no diagnostic laboratory to test for and diagnose SARS-COV-2 infection. As a result, the WHO country office sent hundreds of nasopharyngeal swabs from suspected COVID-19 cases and returning travellers to the Kenya Medical Research Institute in Nairobi to test them for the virus. The country office used its polio network to collect and store the samples and transport them to the Kenyan institute by air as that was the only mean of transportation.

To overcome the lack of testing facilities in Somalia, by the end of April 2020, WHO had established three public health laboratories with molecular testing capacity for diagnosis of COVID-19 infection and other emerging pathogens in Mogadishu, Hargeisa and Garowe – a remarkable achievement. WHO also equipped these laboratories with appropriate biosafety measures and provided additional operational support to record and share test and other virological data with the health authorities in real time so as to support WHO's "test, track, trace and treat" approach to manage COVID-19 cases effectively in the country³.

At the same time, to increase access to laboratory testing for COVId-19 infection in emergency settings, such as at the peripheral level and in hardto-reach areas of the country, the country office also supported the use of 22 GeneXpert machines across the country for SARS-COV-2 testing. These GeneXpert platforms had been used for testing for drug-sensitive and drug-resistant tuberculosis. Despite supply challenges and unpredictability in the availability of the cartridges and other supplies necessary to use these machines, the country office was able to repurpose GeneXpert for testing COVID-19 patients as early as September 2020.

To further improve access to testing, early in 2021, WHO supported national and subnational health authorities to introduce antigen-based rapid diagnostic tests (Ag-RDT) in the country. This allowed access to SARS-COV-2 testing at the point "

When Somalia's first case of COVID-19 was confirmed in March 2020, the country had no diagnostic laboratory to test for and diagnose SARS-COV-2 infection. From that point onwards to date, the country has now 3 public health laboratories with genomic sequencing capacity, 7 laboratories with molecular testing capacity. While the use of community health workers in surveillance activities is a vital link between the health system and communities for early detection of public health threats, the establishment of public health laboratories in the country, the founding of a public health institute, the launch of the field epidemiology training program and the introduction of the integrated disease surveillance and response strategy in the country will pave the way for building the required core capacities for the International Health Regulations (IHR 2005) and building a sustainable health security structure in the country.

of care, which was a game-changer. As a result, testing increased by almost two-fold, marginalized communities and nomadic populations living in hard-to-reach areas gained access COVID-19 testing, and point-of-care testing for suspected cases of COVID-19 at health facilities became available. This led to the development of a testing strategy for testing for SARS-COV-2 in both emergency settings and in routine care⁴.

³ Looking back at 2020, which changed everything we do in Somalia: WHO's response to COVID-19 in Somalia: a year of resilience, impact and innovation. Cairo: World Health Organization Regional Office for the Eastern Mediterranean; 2021 (http://www.emro.who.int/ images/stories/somalia/documents/who-response-tocovid-in-somalia.pdf?ua=1).

⁴ Pokharel S, White LJ, Sacks JA, Escadafal C, Toporowski A, Mohammed SI, et al. Two-test algorithms for infectious disease diagnosis: implications for COVID-19. PLOS Glob Public Health. 2022;2(3):e0000293 https://doi.org/10.1371/journal.pgph.0000293.

Early diagnosis of diseases helps control their spread

"I am happy that every regional hospital and laboratory has the capacity now to detect COVID-19 as every region now has either polymerase chain reaction testing or GeneXpert machines. I am also grateful to WHO for the support it provides to our health ministry and for its continuous technical assistance and training on laboratory diagnosis, reporting, data archiving and maintaining appropriate biosafety precautions.

However, my main message to Somali communities is to stop stigmatizing people with COVID-19 and give them support instead. I want to tell communities to get themselves tested as soon as they feel sick and isolate themselves until they get the results to prevent spreading the disease further.

I also would like to request the Government to continue supporting the public health laboratories and the regional hospitals to maintain these essential public health functions which have been made available through the support of WHO. These investments will help us prepare ourselves better for future pandemics or any other public health crisis."

Dr Muna Mawlid Bade, medical doctor, Daryeel Regional Hospital, Hargeisa, Somaliland



In 2022, WHO expanded the capability of the three public health laboratories it had supported in 2020 to enable them to undertake genomic sequencing of SARS-COV-2 virus and other emerging viral and bacterial pathogens. This allowed the country to detect and report new variants of SARS-COV-2. WHO provided sequencing devices and bioinformatics and reagents, and helped train laboratory staff to use the latest Oxford nanopore sequencing technology. Thus, Somalia is now also able to analyse the genome of other bacteria, pathogens and influenza viruses within the country. This will enable Somalia to safeguard its national health security and help prepare for and deal with future disease outbreaks.

Detecting COVID-19 at the frontline response

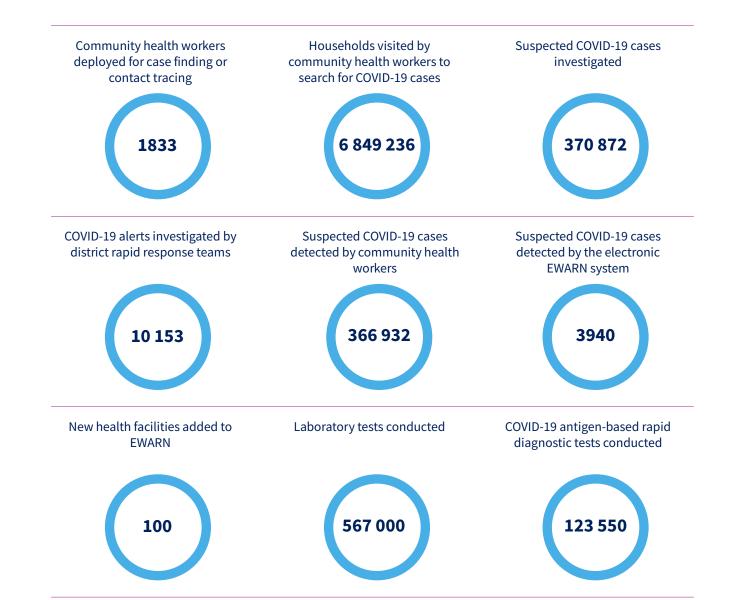
The WHO country office continued to support the subnational health authorities in strengthening surveillance of and response to COVID-19 using its flagship initiative - the Early Warning, Alert and Response (EWARN) system - which was refurbished in 2017 for the detection, verification, investigation and notification of diseases of public health importance. However, given the shortage of health workers ⁵ who could be deployed at the frontline to carry out WHO's test, track, trace and treat initiatives, WHO looked for other approaches to bridge this gap in the surveillance workforce which was so vital for containing the spread of the virus. Therefore, by the end of March 2022, the country office had deployed 1833 community health workers in COVID-19 hotspots to carry out house-tohouse searches in the community for people with COVID-19 symptoms. At the same time, 79 rapid response teams were deployed to collect samples from the suspected COVID-19 cases for laboratory testing and to ensure quarantining of the confirmed cases and their close contact to prevent additional spread of the disease.

These interventions proved effective and 43% of all cases reported by the country by end of March 2022 had been detected by these community health workers.

WHO also enhanced the surveillance functions of EWARN by adding 100 health facilities during the COVID-19 pandemic for a total of 639 health facilities across the country. Furthermore, additional training on EWARN was given to health workers and new case definitions and data elements were introduced to collect information on suspected COVID-19 cases from the health facilities. As a result, EWARN was responsible for detecting more than 50% COVID-19 cases from the health facilities. The electronic database of EWARN allows users to determine GPS data for facilities and hence ascertain outbreak locations and conduct appropriate investigation of any community cluster. In June 2021, WHO, in collaboration with other partners, began the process of transforming EWARN into an integrated disease surveillance and response strategy, and a 3-year operational plan was developed together with technical guidelines for implementing the strategy.

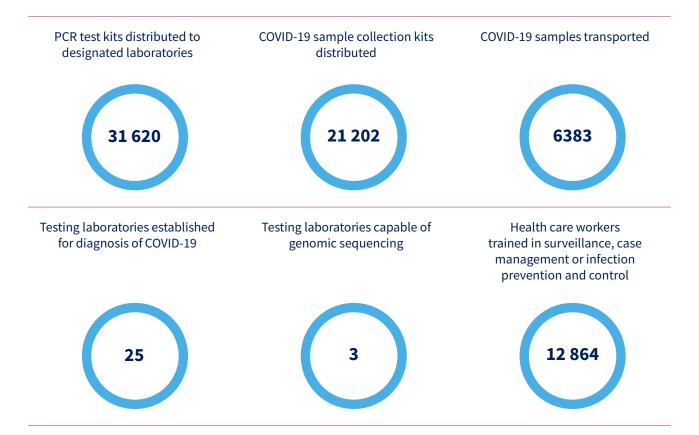
WHO partnered with the National Institute of Health of the federal government to launch the Field Epidemiology Training Program (FETP) for its frontline health workforce in August 2021. This training programme was supported by other WHO partners such as the Africa Field Epidemiology Network, the United States Centers for Disease Control and Prevention and the Public Health Agency of Sweden. The aim was to build a frontline public health workforce in the country who would be skilled and capable of conducting effective disease surveillance and response activities for outbreak response.

⁵ While the SDG index threshold for health workforce to achieve universal health coverage is 4.45 physicians, nurses and midwives per 1000 population, at the time of the COVID-19 pandemic, Somalia had fewer than one health worker per 1000 population.





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COVID-19: coronavirus disease 2019; EWARN: Early Warning Alert and Response; PCR: polymerase chain reaction.

Additional information

- COVID-19 information note no. 2 (www.emro.who.int/images/stories/somalia/covid-19-information-note-2. pdf?ua=1)
- COVID-19 information note no. 3 (http://www.emro.who.int/images/stories/somalia/covid-19-informationnote-3.pdf?ua=1)
- COVID-19 information note no. 5 (www.emro.who.int/images/stories/somalia/documents/covid-19-informationnote-5.pdf?ua=1)
- COVID-19 information note no. 7 (www.emro.who.int/images/stories/somalia/documents/covid-19-informationnote-7.pdf?ua=1)
- COVID-19 information note no. 10 (www.emro.who.int/images/stories/somalia/documents/covid-19information-note-10.pdf?ua=1)

Section 3.

Rolling out COVID-19 vaccines: using the opportunity to go further



On 15 March 2021, the arrival of 300 000 doses of COVID-19 vaccines (Oxford AstraZeneca) donated by the COVAX Facility 6 began a new stage in the country's fight against COVID-19. Somalia was one of the first few countries in Africa to receive COVID-19 vaccines because its national deployment and vaccination plan for COVID-19 was prepared and finalized in a timely manner with technical support from the WHO and UNICEF country offices in Somalia. Before the arrival of the COVID-19 vaccines, an extensive microplanning and readiness exercise was conducted nationwide to prepare the ground. Activities included authorization of the use of COVID-19 vaccines in Somalia from the national regulatory authority, selection of the eligibility criteria for vaccination, deployment of the trained vaccinators and other care workers in health centres, administration of vaccines and strengthening of operational, cold chain and logistical systems for vaccine management.

The nationwide COVID-19 vaccination campaign was launched on 16 March 2021 and up to 16 March 2022, Somalia had received 2 926 763 doses of various COVID-19 vaccines approved by WHO for emergency use. Within a year, about 18% of the eligible adult population had received vaccines - 8% of the country's population had been fully vaccinated and 7% had been partially vaccinated. By end of March 2022, the country was able to administer more than 95% of COVID-19 vaccines received from COVAX and other bilateral donations, and administer 15 doses of COVID-19 vaccines for every 100 people in the country, better than many other African countries with stronger health systems. The COVID-19 vaccination programme was also supported the United Nations Population Fund, IOM and the World Food Programme.

Using COVID-19 vaccine roll-out to vaccinate zero-dose children

While the country office supported Somalia in

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Racing against time, WHO helped the country rollout the COVID-19 vaccines in record time. The opportunity was also seized to develop a robust and strong system for childhood immunization programme in the country that supported accelerated programme for childhood vaccines and reach out to children and women of childbearing age with vaccines who have missed out routine immunization.

developing and implementing the vaccination plan, WHO was aware that the COVID-19 pandemic had caused severe disruption to routine immunization programmes in the country. WHO and UNICEF estimated that in 2020, as a result of disruptions to routine immunization programmes caused by the pandemic, about 186 000 children younger than 1 year missed their measles vaccine, 170 000 children younger than 1 year missed their first dose of the pentavalent vaccine and 106 000 children missed their third dose of the pentavalent vaccine (up from 171 920, 140 110 and 66 957 children, respectively, in 2019). This led WHO to use COVID-19 vaccination programme to accelerate childhood immunization. Thus, while 954 400 doses of COVID-19 vaccines were administered, about 765 257 doses of all childhood vaccines were also administered to all children and women of child-bearing age who were due or had missed out on these vaccines. Overall, 75 217 zero-dose children were vaccinated and 76 159 women received vaccines against tetanus toxoid. The campaign covered all states in Somalia including Somaliland. Thus, for every 100 doses of COVID-19 vaccine administered, seven zero-dose children could be identified and vaccinated.



⁶ Somalia has secured enough vaccines from the COVAX Facility to vaccinate at least 20% of its population in phases. The COVAX Facility is co-led by Gavi, the Vaccine Alliance, WHO and the Coalition for Epidemic Preparedness Innovations, working in partnership with UNICEF. It seeks to accelerate the development and manufacture of COVID-19 vaccines, and to guarantee fair and equitable access for every country in the world.

The COVID-19 vaccination operation

"When the first vaccines arrived, it was a momentous time for Somalia. We knew we could save lives. But a lot of planning – day and night -- had gone into making this a reality for our country. At every step, we consulted each other and shared vital information with the media and Somalis, such as the benefits of the vaccines and the eligible groups.

It gave me great joy to see that my country was one of the first in Africa to receive COVID-19 vaccines. The efforts we made to reach Somali people have been unparalleled, especially for a fragile country. We are still searching for people who need to be vaccinated but we need more support as this is an expensive and multilayered operation for a fragile country."

Mukhtar Shube, Expanded Programme on Immunization Officer, Federal Ministry of Health and Human Services

Closing the vaccination gender gap

Data gathered by October 2020 on COVID-19 testing showed that, of 23 932 samples tested, only 32% were females, and of the 3864 positive cases, 26% were females. Anecdotally, community health workers attributed this difference to women not visiting health facilities because of the social stigma associated with COVID-19, women's fear of having to isolate when they are key care takers at home, including looking after sick and elderly relatives, and women having less social exposure than men.

When vaccinations were rolled out, again, a

stark difference was seen between how many men and women were vaccinate. However, with interventions to address this issue at all levels, the gap is closing. Nonetheless, of people vaccinated in Somalia by March 2022, 56% were men and 44% were women.

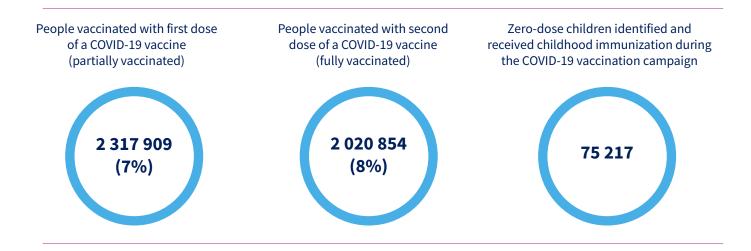
The gender difference in COVID-19 infection: a young doctor's observations

Twenty-eight-year-old Dr Muna Mawlid Bade, who works in the Daryeel Hospital in Hargeisa, had never seen anything like the COVID-19 pandemic before.

"Fortunately, most cases were mild or moderate, but severe ones required constant care, which meant no rest and working three shifts. Our main challenge was the lack of doctors. We were only three doctors working in three shifts. At the beginning of the outbreak, I remember that some days I didn't go home for days. We had to make some difficult decisions, for example, treating patients with severe infection who needed attention over those who seemed to have less serious symptoms.

She was surprised to observe that at one point almost 70% of the people infected with COVID-19 were males, which she attributes to their social behaviour. She explained, "Men are more socially active and attend large gatherings of people. Many policemen and men working in the military have also been infected with COVID-19, probably because their jobs require them to mix with many people."

Dr Muna Mawlid Bade, Daryeel Hospital, Somaliland



Additional information

- COVID-19 information note no. 11 (www.emro.who.int/images/stories/somalia/documents/covid-19information-note-11.pdf?ua=1)
- COVID-19 information note no. 14 (www.emro.who.int/images/stories/somalia/documents/covid-19information-note-14.pdf?ua=1)

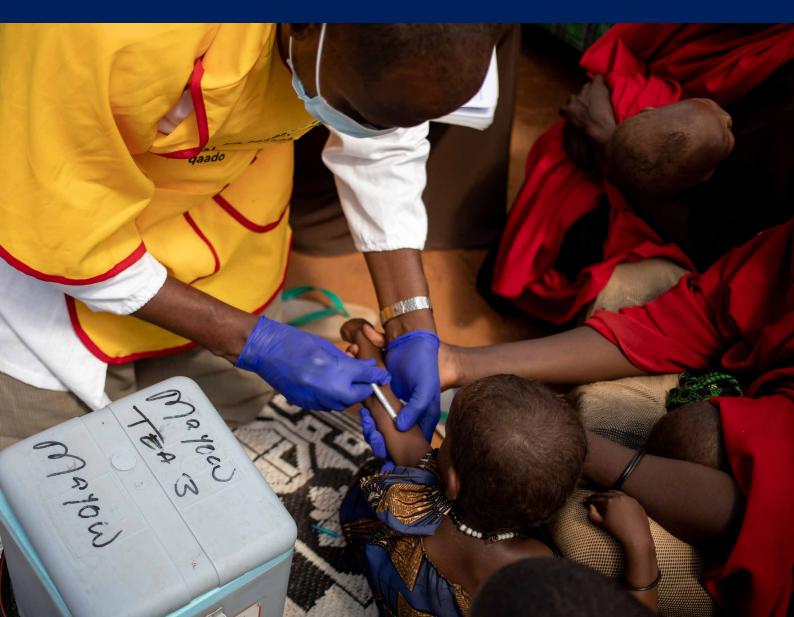
COVID-19 vaccines received by Somalia, 2021–2022

- 15 March 2021 The COVAX Facility donated Oxford–Astra Zeneca vaccines (http://www.emro.who.int/somalia/ news/historical-moment-for-somalia-as-covid-19-vaccines-arrive-through-covax-facility.html)
- 9 August 2021 The Government of France provided Oxford–AstraZeneca vaccines through the COVAX Facility (http://www.emro.who.int/somalia/news/108-000-doses-of-covid-19-vaccines-donated-by-france-arrive-insomalia.html)
- 17 August 2021 The United States of America donated Johnson & Johnson single-dose vaccines through the COVAX Facility (http://www.emro.who.int/somalia/news/race-against-time-to-boost-covid-19-vaccine-uptake-insomalia.html)
- 31 August 2021 The Ministry of Health of Germany donated 1 386 000 surgical and medical face masks (http:// www.emro.who.int/somalia/news/germany-donates-13-million-face-masks-to-who-for-its-covid-19-responsework-in-somalia-more-face-masks-means-more-people-protected.html)
- 26 October 2021 The Ministry of Health of Germany donated Oxford–AstraZeneca vaccines through the COVAX Facility (http://www.emro.who.int/somalia/news/in-fight-against-covid-19-germany-donates-163-000-covid-19vaccine-doses-to-somalia-through-covax-facility.html)
- 8 November 2021 The Government of the United States of America donated Johnson & Johnson vaccines through the COVAX Facility (http://www.emro.who.int/somalia/news/somalia-receives-another-shipment-of-336-500-doses-of-johnson-a-johnson-vaccines-donated-by-the-united-states-government-through-the-covaxfacility.html)

Note: Somalia also received Sinopharm COVID-19 vaccines bilaterally.



Managing essential health services during COVID-19: leaving no one behind



WHO's pulse survey ⁷, in which Somalia participated, showed that during May–September 2020, 33% of essential health services had been disrupted (one out of three services), and during January–March 2021, the country reported continued disruption to 12% of essential health services (six out of 51 services), indicating that substantial disruptions persisted even after 1 year of the pandemic. Maintaining essential health services in the midst of the COVID-19 pandemic to ensure that the routine health care services and essential public health services continued, while also providing care for patients with COVID-19, was a mounting challenge.

Innovating to promote integrated care

WHO supported the establishment of 19 treatment centres for COVID-19 across the country and equipped them with necessary supplies and trained health work workers. More than 3500 patients received specialized care in these centres from March 2020 to March 2022. WHO also ensured that oxygen concentrators and essential drugs and medical supplies, such as personal protective equipment and other protection materials for health care workers, were available not only in these treatment centres but also in primary health care centres, which are the first contact point between patients seeking health care and the health system of the country. The primary health care centres were supported so they could continue to provide both routine and emergency care during the pandemic. Later, WHO helped establish three solar-powered oxygen delivery systems in three hospitals in the country as well as three pressure swing adsorption plants in the country, in Mogadishu, Garowe and Hargeisa.

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Building critical care capacity

The COVID-19 pandemic revealed serious limitations in the management of critically ill patients in Somalia. During the first few months of the pandemic, about a quarter of patients with COVID-19 were in need of critical care and the Somali health systems struggled to cope with the rapidly growing caseload.

The health facilities and health personnel were stretched beyond their limits to manage critically ill patients in health centres which had limited diagnostic and care facilities, highlighting the important gaps in the health system. This was also an opportunity in disguise. With support from the Pandemic Emergency Financing Facility of the World Bank to improve access to health services in Somalia, the WHO country office and the national health authorities collaborated to implement a 3-month project to establish emergency, critical and operative care services.

⁷ COVID-19 information note no. 13 (http://www.emro.who.int/images/stories/somalia/ documents/covid-19-information-note-13.pdf?ua=1)

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Evidence from the field: Using the COVID-19 response to increase access to medical oxygen in Somalia

In mid-2020, when the first wave of the COVID-19 pandemic hit Somalia, the fragility of the health system to manage patients with severe symptoms was exposed. Lives were needlessly lost due to a lack of medical oxygen and supplies. Based on the WHO Biomedical equipment for COVID-19 case management inventory tool, the WHO country office in Somalia assessed the availability of oxygen sources and planned for a surge in demand for oxygen as COVID-19 cases spiked. The survey showed that 26% of responding health facilities had at least one oxygen source while 4% had oxygen concentrators and only 22% had access to oxygen cylinders. The gaps in the available supply of medical oxygen were alarming. To bridge the gaps, WHO developed a data-driven strategy to scale up access to and availability of medical oxygen in Somalia.

The first phase of WHO's strategy was to equip all 1200 primary care centres with oxygen concentrators and distribute pulse oximeters to over 3000 community health workers. Since only one in four health facilities in Somalia had access to uninterrupted electricity, WHO also set up solar-powered oxygen concentrators in remote health centres across the country. Delivery and installation of solar-powered medical oxygen equipment in a paediatric hospital was one of the most cost-effective solutions to providing secure access to oxygen in settings where access to electricity is neither consistent nor guaranteed.

In the 11 months following installation of the solar-powered medical oxygen system, 476 care seekers with very low oxygen saturation levels received medical oxygen: 95% were discharged without complications after oxygen levels normalized. Children younger than 5 years comprised 62% of those who received oxygen. Although the solar-powered system was initially set up to support case management of COVID-19 patients, children with neonatal asphyxia, pneumonia and other acute respiratory diseases soon represented the majority of patients.

The solar-powered oxygen system in Somalia was financially supported by Grand Challenges Canada and the University of Alberta. WHO worked to set up the system and other United Nations agencies and implementing partners provided support to turn the idea into reality. Implementation of this innovative solution is coupled with research supported by the United Nations Children's Fund, the United Nations Development Programme, the World Bank and the WHO Special Programme for Research and Training in Tropical Diseases to gather evidence on the feasibly of the system, its utilization and cost–effectiveness, and survival rates.

The WHO country office aims to facilitate scale up the solar-powered oxygen system as well as pressure swing adsorption plants. Replicating the system can save many more lives and help Somalia move closer to attaining WHO's triple billion targets and health-related Sustainable Development Goals.

In 2018, pneumonia was estimated to have killed 15 165 children younger than 5 in Somalia (about 21% of child deaths and about two children every hour. Global evidence indicates that up to 35% of childhood deaths from pneumonia are preventable with the use of medical oxygen. Therefore, the WHO country office in Somalia is hopeful that the strategic partnerships forged with innovators, funders, Global Action Plan agencies and the private sector, will increase demand for medical oxygen and accelerate the public health impact of the initiative. As of December 2021, WHO had delivered and installed two containerized pressure swing adsorption oxygen plants. Each plant can deliver bedside oxygen to 25 patients in intensive care and can refill 100 40-litre oxygen cylinders per day.

By utilizing the COVID-19 response to increase access to medical oxygen in Somalia WHO aims to reverse the health inequities observed in one of the most disadvantaged countries in the world.

At the start, a rapid assessment of critical care services was done in 142 hospitals of all 18 regions in the country to determine needs⁸.

Through the project, a set of basic emergency care activities was implemented to develop emergency, operative and critical care services within the continuum of integrated health services delivery in the country. In addition to delivering support in critical care, the project also supported Somali health workers to strengthen their skills in basic emergency care, mass casualty management and trauma care, hospital management, and infection prevention and control, among other topics.

Caring for caregivers and frontline workers

For the past 2 years and to maintain essential health care, WHO has supported health care workers to protect them from COVID-19. Since March 2020, WHO has provided more then 1 668 702 medical/ surgical masks, 14 829 sets of personal protective equipment kits, 9540 laboratory gowns and 192 793 gloves to health personnel and federal member states.

In August 2021, the Government of Germany officially handed over an in-kind donation of 1.3 million surgical face masks to WHO and the Ministry of Health and Human Services to protect Somalis across the country.

Oxygen: a smart investment for patients with severe COVID-19

A study conducted by WHO on the clinical characteristics, comorbidities and risk factors influencing the outcomes of 133 critically ill patients with COVID-19 admitted to the De Martino Hospital in Mogadishu clearly demonstrated that clinical interventions with non-invasive ventilation for patients with poor prognosis did reduce the risk of death. About 85% of the patients receiving such interventions died within a week and 90% within 2 weeks, and none survived beyond 3 weeks of admission. One of the important findings of the study was the better clinical outcome of patients who were given medical oxygen only. A subanalysis of 121 patients showed that the survival probability of patients who had medical oxygen only was higher (75%) at day 7 and consistently remained at more than 70% 14 days after admission.

⁸ Towards establishing emergency, critical and operative care services in a fragile setting: capitalizing on the COVID-19 response: report on the activities conducted under the Pandemic Emergency Financing Facility to improve access to health services in Somalia. Cairo: WHO Regional Office for the Eastern Mediterranean; 2022. (https://applications.emro.who. int/docs/9789290229568-eng.pdf?ua=1).

Face mask use in elections in Puntland

As the General Secretary of the Transitional Puntland Election Commission, Ubah Abdullahi knew how important the local election being held in three districts was. At the same time, Ubah knew just how serious COVID-19 can be, particularly for elderly people and those with chronic diseases, as her cousin had died of the disease. This made her worry about how best to prevent people from being infected with COVID-19 when voting.

When she heard that Puntland was receiving surgical face masks from the Government of Germany and WHO for the local elections to go ahead smoothly, Ubah was overjoyed. "As we needed a large number of face masks to distribute and didn't have a lot of money to plan for this, the kind donation from Germany and WHO really helped us follow the COVID-19 prevention protocols. We are happy that we prevented the spread of COVID-19 during the event while people fulfilled their civic duties," said Ubah.

Ubah Abdullahi, General Secretary of the Transitional Puntland Election Commission



Additional information

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- French President and WHO Director-General commend Somali doctors who participated in WHO Academy certified training course on dealing with mass casualties
 - (http://www.emro.who.int/somalia/news/french-president-and-who-director-general-commend-somalidoctors-who-participated-in-who-academy-certified-training-course-on-dealing-with-mass-casualties.html).
 - COVID-19 information note no. 4 (http://www.emro.who.int/images/stories/somalia/documents/covid-19information-note-4.pdf?ua=1)
 - COVID-19 information note no. 9 (http://www.emro.who.int/images/stories/somalia/documents/covid-19information-note-9.pdf?ua=1)
 - COVID-19 information note no. 15 (www.emro.who.int/images/stories/somalia/documents/covid-19information-note-15.pdf?ua=1)
 - COVID-19 information note no. 18 (www.emro.who.int/images/stories/somalia/documents/covid-19information-note-18.pdf?ua=1)
- WHO's report on establishing emergency, critical and operative care services in a fragile setting while capitalizing on the COVID-19 response in Somalia officially launched

(http://www.emro.who.int/somalia/news/whos-report-on-establishing-emergency-critical-and-operative-care-services-in-a-fragile-setting-while-capitalizing-on-the-covid-19-response-in-somalia-officially-launched.html)

• French President and WHO Director-General commend Somali doctors who participated in WHO Academy certified training course on dealing with mass casualties

(http://www.emro.who.int/somalia/news/french-president-and-who-director-general-commend-somali-doctors-who-participated-in-who-academy-certified-training-course-on-dealing-with-mass-casualties.html)

- Newly established WHO Academy credits response of Somali health workers to mass casualty events
 - (http://www.emro.who.int/somalia/news/newly-established-who-academy-credits-response-of-somali-health-workers-to-mass-casualties-event.html)
 - COVID-19 information note no. 8 (www.emro.who.int/images/stories/somalia/documents/covid-19-informationnote-8.pdf?ua=1)
 - COVID-19 information note no. 13 (www.emro.who.int/images/stories/somalia/documents/covid-19information-note-13.pdf?ua=1)
 - COVID-19 information note no. 16 (www.emro.who.int/images/stories/somalia/documents/covid-19information-note-16.pdf?ua=1)
 - COVID-19 information note no. 19 (www.emro.who.int/images/stories/somalia/documents/covid-19information-note-19.pdf?ua=1)
- Second round of the national pulse survey on continuity of essential health services during the COVID-19 pandemic (https://www.who.int/publications/i/item/WHO-2019-nCoV-EHS-continuity-survey-2021.1)
- Third round of the global pulse survey on continuity of essential health services during the COVID-19 pandemic (https://www.who.int/publications/i/item/WHO-2019-nCoV-EHS_continuity-survey-2022.1)

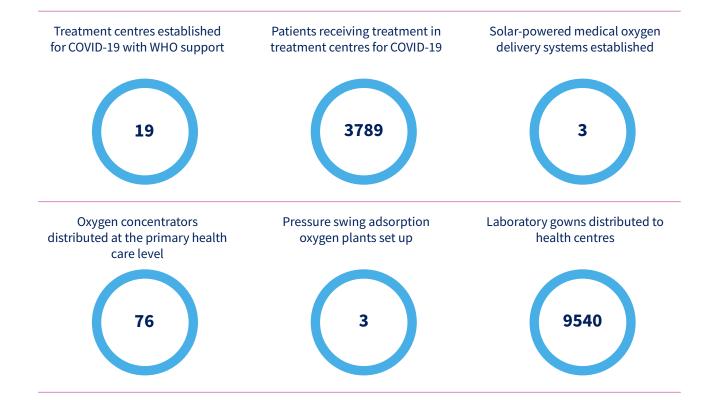


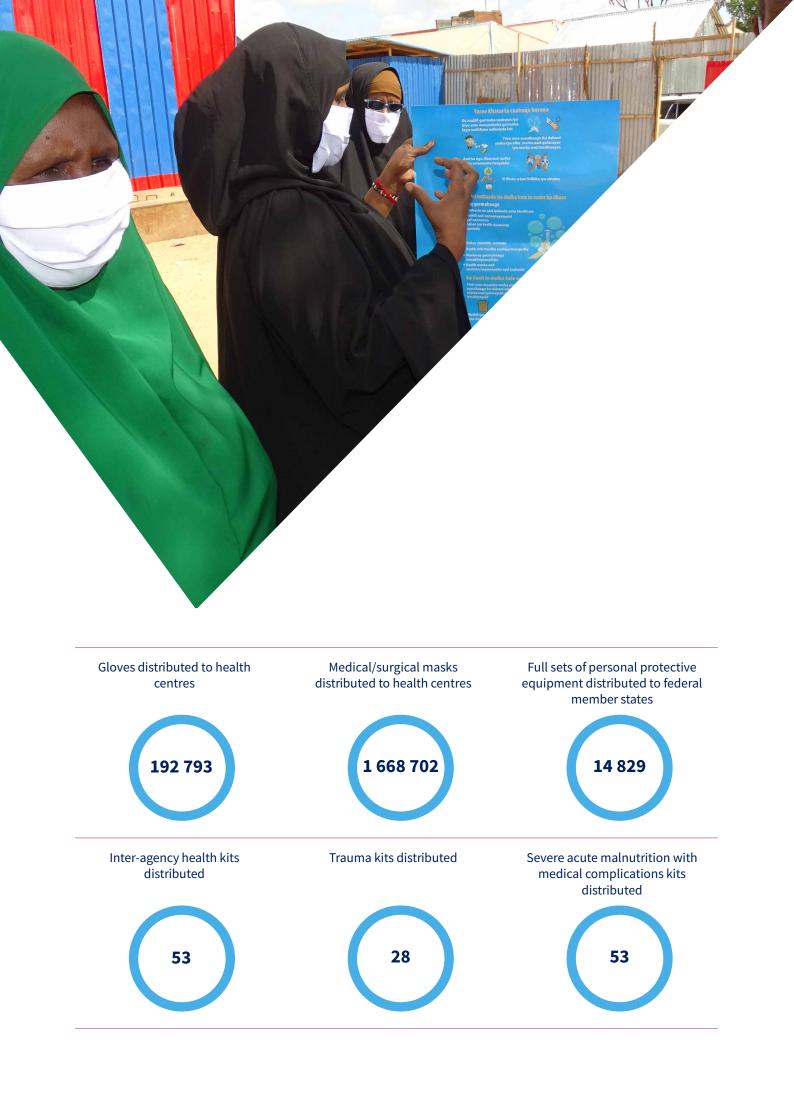
By understanding different ways to break the chain of infections, health personnel can help prevent the spread of COVID-19 and share this information with patients and community members they meet. Naima Abdulla Hersi, a nurse and national public health officer at the Federal Ministry of Health of Somalia, benefitted from the knowledge she acquired through capacity-building sessions run by WHO, the Federal Ministry of Health and Human Services and the World Bank.

"Even what we regard as simple techniques, such as correct hand hygiene and the proper use of personal protective equipment, are useful to break the chain of infection spreading among the community, staff and patients. People who have knowledge of infection prevention and control measures are much-needed role models who can help doctors, nurses and others to close this knowledge gap in health facilities and save lives by adopting safer practices," Naima noted.

In addition to learning about infection prevention and control in the management of COVID-19 patients, participants learnt about the decontamination of equipment and instruments, proper waste management in health care settings, laundry management, assessment of infection prevention and control in health care settings, and safe injection practices.

Naima Abdulla Hersi, national public health officer, Federal Ministry of Health





Section 5.

Promoting science, evidence and knowledge: translating research into actions on health



The WHO country office continued to support the use of science, data and evidence in public health decisions-making for managing COVID-19 as well as to inform implementation and operational response strategies. The use of data for risk assessment and intelligence-gathering allowed the country office to promote science-based standards and tailor and target health interventions that have proved to be effective and efficient in a fragile setting. A number of original research and systematic reviews were conducted by the country office and scientific manuscripts developed which were authored and co-authored by country office staff, academia, private sector staff and ministry of health staff.

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WHO's active push to generate new knowledge and evidence based on science and address critical knowledge gaps in fragile settings on effective interventions while at the same time responding to COVID-19 has increased research capacity at public and private institutions, led to the conduct of high-quality publishable research and introduced a culture of putting research into practice. Publication of the research papers in medical journals has helped increase authorship from lower income countries. WHO's support also paved the way to building a culture of continuous learning and innovation.

Using digital data for decision-making

In a collaborative effort with the national and subnational health authorities, WHO has used a number of electronic tools to collect and analyse data from the interventions it supported. The use of these digital tools allowed WHO and its partners to continuously review the quality of its response operations and adjust and tailor interventions to maximize their impact. These tools included:

- EWARN software
- Outbreak toolkit combined with R packages
- COVID-19 dashboard
- COVID-19 mobile application for community health workers with a web-based platform for data visualization
- WhatsApp chatbot and FaceBook messenger
- Digitized patient hospital data
- CommCare for vaccine registration
- Mobile application for issuing digital COVID-19 vaccination certificates

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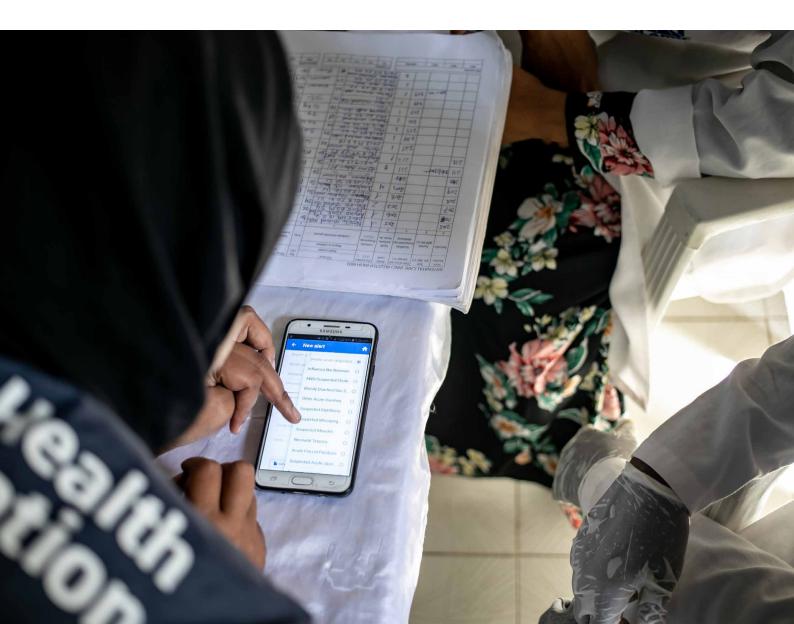
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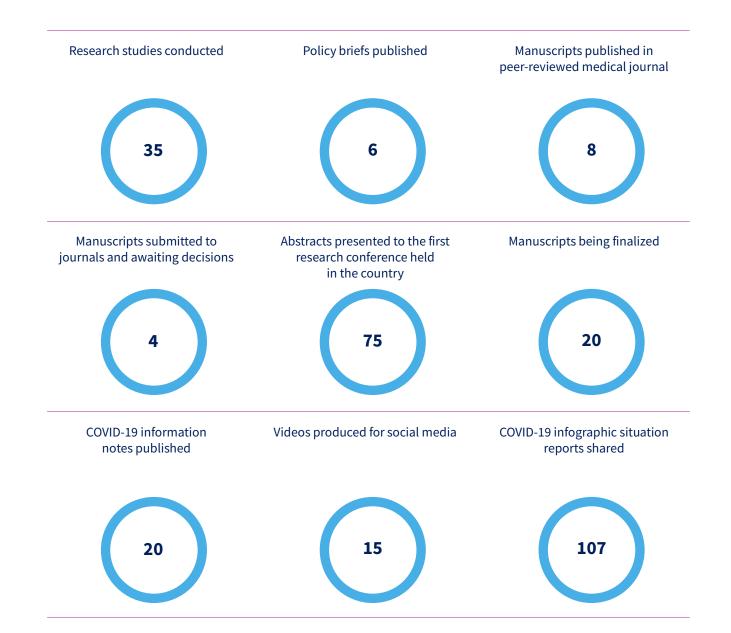
Digitizing vaccine delivery

WHO joined forces with Gavi, the Vaccine Alliance, and Dimagi Inc., and supported the Federal Government of Somalia to introduce a digital tool, CommCare, to record and report data on COVID-19 vaccination from 2021 onwards. More than 1.3 million people who have received either partial or full vaccination have been registered in this system. The system helped to monitor eligibility criteria at different stages of the vaccine roll out, facilitated follow up of people who required additional doses, helped follow up on any adverse effects due to immunization, generated unique identification for individuals, and supported vaccine inventory and stock management.

Additional information

- COVID-19 information note no. 6 (www.emro.who.int/images/stories/somalia/documents/covid-19-informationnote-6.pdf?ua=1)
- COVID-19 information note no. 12 (www.emro.who.int/images/stories/somalia/documents/covid-19information-note-12.pdf?ua=1)







Section 6.

Learning lessons on inclusive recovery: setting priorities for building resilience



Two years after the start of the COVID-19 response in Somalia, and with COVID-19 vaccination yet to meet stipulated WHO targets, it is essential to take stock of lessons learnt. Despite the loss COVID-19 has caused in human life and social and economic aspects of life, and the effect it has had on people's mental health, The pandemic has provided unique opportunities to make lasting improvements in the health sector. WHO was able to seize these opportunities, to innovate, and to respond to the emergency while at the same time making sure that the Organization's work contributed to rebuilding the health system.

Building back better from COVID-19

When Somalia was hit by the COVID-19 pandemic, its health system was ill-prepared to manage this public health crisis. The country's IHR (2005) core capacity score was 31 out of 100 which indicates significant gaps in the country's capacity to prevent, detect and respond to any threat to its health security. Protracted humanitarian conflicts, political unrest, chronic underinvestment and migration of skilled health workers made Somalia's health system fragile and weak. During the first few weeks of the pandemic, these gaps in the health system were exposed and seriously affected health care and continuing essential health services.

WHO led the way to manage this public health crisis. Through its work, WHO aimed to ensure that any investment made to rebuild parts of the existing public health system and build a new public health system would result in a better and sustainable health security structure in the country and contribute to achieving the goals of UHC and other goals of the 2030 agenda for sustainable development. In particular, the following three areas need further policy attention and focus from international partners to build back better and achieve an inclusive recovery and resilience of the health system:

The country's health system should be based on a strong primary health care system, one that is able to absorb the shock of future health threats and lays the ground for supporting the continuum of care and integrated health services delivery. A robust and decentralized primary health care system built on the principles of equity and efficiency will improve

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As the country's health system is on the path of rebuilding, it is essential that vital public health services are funded properly and integrated into broader UHC reforms that are led through primary health care. Ultimately this will prove the most efficient and equitable way to simultaneously strengthen health security and accelerate progress towards UHC, even in this fragile setting.



governance, build resilience and expand access and service delivery, and will be able to reach the underserved, rural and marginalized communities. This will be the gateway to achieving UHC in a fragile country such as Somalia.

- Further support is needed to sustain the essential public health functions that were supported and built by WHO during the COVID-19 pandemic, such as the establishment of public health laboratories with the necessary technology and capability and the field epidemiology training program to build a public health workforce at the frontline and strengthen both community-based and health facility-based surveillance and response functions of the health system. These have laid the foundation for a better health security structure and will make the country better prepared for any future pandemic. This will also make sure that in any future pandemic, the impact on essential health services will be less.
- Building and investing in a strong primary health care workforce is crucial for improving service delivery and health care coverage. The migration of skilled health workers from the country because of protracted conflicts and the resulting shortages have adversely affected service delivery at all health care levels. Therefore, sustainable investment is needed in building a health workforce in the country that can reduce the current shortage and

ensure that the country's health workers have the required skill and knowledge to deliver good quality health care at all levels. Using community health workers, bringing them into the formal employment system and task shifting are some of the strategies to consider for building a workforce that is ready to deliver in accordance with the need.

Seizing every opportunity

International solidarity has been the key to managing the COVID-19 pandemic and will remain key to its end. COVID-19 has weakened Somalia's already weak health system.

This has led to serious health and nutrition consequences, particularly among vulnerable people, and adversely affected people's access to health services. Yet, the pandemic has opened opportunities that could lead to building a better and more resilient health system which can protect vulnerable people.

As the country's health system is on the path of rebuilding, it is essential that vital public health services are funded properly and integrated into broader UHC reforms that are led through primary health care. Ultimately this will prove the most efficient and equitable way to simultaneously strengthen health security and accelerate progress towards UHC, even in this fragile setting.







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