HEALTH FOR ALL

World Health Organization
Somalia

CASE STUDY

Community health workers (CHWs): meeting the challenges on the frontline and advancing equitable access to health care in a fragile setting

August 2023

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WHO/Ismail Taxta

Highlights

Need:

An acute shortage in the health workforce for the COVID-19 response to perform case detection and contact tracing in fragile and vulnerable settings where people feel marginalized and require health services but have little access to care.

WHO's solution:

With innovation and outside-the-box thinking, WHO rallied 3227 CHWs in 2020. These frontline responders were deployed to hard-to-reach areas during the COVID-19 pandemic. Later, during the drought in 2022, a further 2194 CHWs were deployed to deliver basic health services directly to the people in need.

Impact:

Millions of vulnerable people have received compassionate health services from the dedicated efforts of CHWs when essential health services were disrupted during COVID-19 and access to care was severely compromised during the drought in Somalia. A significant proportion of COVID-19 cases and close contacts were detected by these CHWs, as were many health alerts notified by CHWs which were investigated and responded to by the formal health system. This has led to reducing morbidity and mortality among the vast majority of vulnerable populations living in marginalized settings and often excluded from the formal health system. CHWs brought strength and hope as well as lifesaving services to millions of people who likely would not have otherwise been seen.

Moving forward:

Sustainable investment in dedicated CHWs in fragile settings is a game changer. In the midst of a humanitarian crisis, when there is an acute shortage in the health workforce, CHWs can be the answer to meeting the challenges of responding to health security threats at the frontline while addressing inequity in access to care.

COVID-19 pandemic in Somalia: racing against time to contain the virus

Somalia's health system has been severely weakened and fragmented by underinvestment resulting from prolonged war, political instability and ongoing humanitarian crisis. As a result of insecurity and poor road infrastructure, many communities are unable to access health and other essential services. The universal health coverage index for Somalia was 27 out of 100 in 2019 – one of the lowest in the world where the global average is 60.3.[1] The emergence of the coronavirus disease 2019 (COVID-19) pandemic and the resultant disruption of essential health services in this fragile setting created an environment where many determinants of poor health outcomes among Somali people were exacerbated. Even before COVID-19, maternal and infant deaths in Somalia were among the highest in the world. Furthermore, decades of war, insecurity and protracted crises had led to the migration of skilled health workers from the country. Today, for every 1000 people in Somalia, fewer than one doctor/nurse/midwife is available.[2]

Similar to many other countries in sub-Saharan Africa, Somalia, with its fragile health system, faced a difficult task in responding effectively to the COVID-19 pandemic in the early phase. In addition, with fewer than one skilled health care worker per 1000 population in a country of nearly 15 million people essential health services were severely disrupted and remained so even 3 years after the start of the pandemic. This, coupled with weak surveillance system and limited diagnostic and testing capacity for COVID-19, made early detection of cases and contact tracing among the population even more challenging. In addition, poor health-seeking behaviour, fear of stigma, the considerable distance to reach health facilities, and the unavailability or unaffordability of or lack of trust in public health services resulted in very few sick people actively seeking health care and testing for COVID-19 resulting in gross underreporting of reported cases of COVID-19.

> **With an already weak health system and acute shortage of health workforce, Somalia struggled to contain the virus during the COVID-19 pandemic. After the first few reported cases which were travel associated, the country saw a rapid rise in cases after community transmission of the virus causing COVID-19 (SARS-CoV-2) began in late March and April 2020. The outbreak spread to all states of the country with varying degrees of community spread. This prompted the World Health Organization (WHO) country office to innovate that can improve tracing, tracking and treating suspected cases of COVID-19 in the community.**

[1] 1 The Global Health Observatory. UHC service coverage index (SDG 3.8.1). World Health Organization; 2021 (https://www.who.int/data/gho/data/indicators/indicator-details/GHO/uhc-index-of-service-coverage).

[2] Abdi A, Ahmed AY, Abdulmunim M, Karanja MJ, Solomon A, Muhammad F, Kumlachew M, Obtel M, Malik SMMR: Preliminary findings of COVID-19 infection in health workers in Somalia: A reason for concern. International Journal of Infectious Diseases 2021, 104:734-736.

Community health workers: the unsung heroes of Somalia's response to COVID-19

During the COVID-19 pandemic, WHO deployed 3227 community health workers (CHWs) to 51 high-risk districts in Somalia. These CHWs, operating at the community level, had over half of the members as women. The community health workers played a crucial role in establishing community-based surveillance, risk communication and community engagement at the village level during the period of pandemic. Their work improved COVID-19 detection, testing and tracking, and reached thousands of people every month with important health messages on prevention and control of COVID-19 as well as delivered basic health care in a situation when the essential health services were disrupted across the country. They served as a bridge to link community-based surveillance with health facilities in the locations they cover through referral links and case follow-up at the household level.

The main role of the community health workers in relation to COVID-19 response were to prevent, detect or identify, quarantine, track and follow up on suspected cases of COVID-19 and their contacts (Box 1).

Box 1. Key activities of community health workers in responding to COVID-19

- Educating the communities they engage with about the signs, symptoms and transmission routes of COVID-19. This learning could also include building skills among the community on personal preventive measures, such as wearing a mask, maintaining physical distancing, hand hygiene, coughing into elbows, and water, sanitation and hygiene (WASH) interventions.
- Mobilizing local residents to use hand-washing stations in the communities and health facilities.
- Identifying the signs and symptoms of COVID-19 in community members and reporting suspected cases immediately to district polio officers and district medical officers.
- Communicating daily health information validated by WHO to the community and combatting the spread of misinformation, rumours and fears.
- Following up with, monitoring and supporting patients who are self-isolating or in quarantine in the community and ensuring delivery of food and social and medical support through the local leaders.

In focus. Look for disease outbreaks to prevent spread

"My message to my community is to try and look for disease outbreaks to prevent them from spreading. My message to the Government is to provide peace and basic health services, and work on more health developments for disease control and prevention," says Aisha Hussain Moallim, a community health worker in Hudur, Bakool.

Ms Aisha takes her job and disease prevention seriously. Together with a social mobilizer, she keeps a physical distance of at least 1–2 metres from the people they visit. They use face masks and wash their hands properly as often as they can. They also spread messages to people to do the same.

She explains what kind of information they share during their visits. "We inform families that COVID-19 is real, and ask suspected cases to give samples for testing and to self-isolate until they receive the results. In the event someone is positive for COVID-19 and needs medical attention, we support with referrals, using a free ambulance service, to Hudur General Hospital for immediate medical check-ups. If the person is confirmed positive for COVID-19 and does not have severe illness, we ask him/her to stay at home and isolate, and avoid spreading the virus by keeping away from others."

Aisha Husain visits the villages every day to see if there are any suspected COVID-19 cases, or people sick with any other diseases, such as malaria or acute diarrhoea. For chronic or complicated cases, her team encourages referral to the hospital for medical treatment.

"Using my mobile telephone, I collect information and submit it to the district-level team in Hudur district, Bakool. Once I record information, I identify contacts and then follow up with family members to share the messages on COVID-19 prevention and management of cases. Together with the community mobilizer, we try to follow up with positive cases on a daily basis."

Before starting his work, Aisha Hussain has to prepare her data collection tools, including her charged mobile telephone, face masks and gloves. She then ensures she prepares a plan and shares it with her supervisor for approval. "I always follow guidance from the district-level health team, district medical officer, district polio officer and the Ministry of Health."

"I enjoy working with WHO. They always support our community, including during outbreaks and other times of need. Despite this, our community still needs more basic health services and other development projects in Hudur," she says.

Responding to the COVID-19 at the frontline: bridging the gap between community and health system

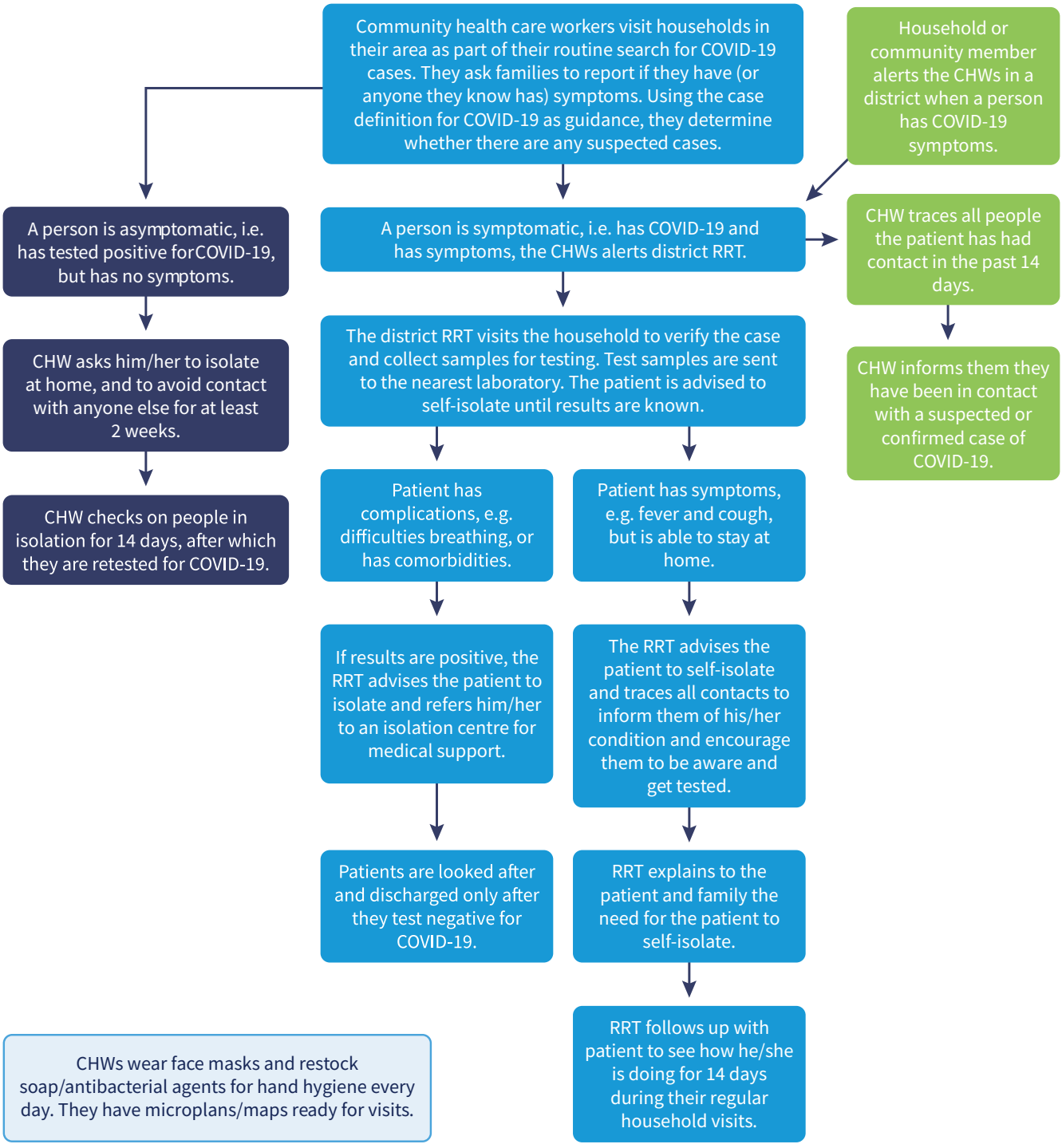
At the time of the COVID-19 pandemic, the country's only functioning surveillance system was the Early Warning, Alert and Response Network (EWARN). However, the system had poor population coverage, and suboptimal reporting timeliness and completeness with only 795 of an estimated 1200 health facilities being included in the network during the pandemic. This left a large number of districts without any surveillance coverage especially those which are hard to reach.

The 3,227 community health workers recruited by WHO acted to bridge this gap in surveillance. Most of the districts where these CHWs were deployed represented 62% of the population of Somalia. Most of these districts are in hard-to-reach areas because of insecurity and other access constraints such as poor road infrastructure and long distances between the settlements and the nearest health facility. These CHWs were part of the community-based surveillance system established at the time of pandemic to complement the facility-based EWARN surveillance. The CHWs were selected from and deployed to the same communities where they lived and had some experience in surveillance as they had previously been recruited for polio surveillance.

The CHWs were supervised by a team of rapid responders drawn from among district medical officers, district polio officers and district social mobilization officers. A total of 850 such teams were also deployed in the priority districts. The aim of this complementary community-based surveillance system was to identify cases and contacts early to stop onward transmission and limit sustained community spread of COVID-19 in places which were not covered by the EWARN.

> **"The main role of the community health workers was to make house-to-house visits and look for any suspected COVID-19 cases using a simple case definition. They also conducted community engagement and health awareness sessions on simple hygiene measures to reduce the risk of exposure and infection in the community. WHO and the Federal Ministry of Health trained these lay health workers on the case definition, what to do when they identified a suspected case, and basic infection prevention and control measure for themselves, the suspected cases and their close family members."**

Figure 1: Sequence of actions when community health workers meet cases of COVID-19



Responding to the drought in Somalia: bringing health services close to the people through the community health workers in hard-to-reach areas

While the country was in the midst of a rapidly evolving health crisis owing to the worst drought in its history, the greatest urgency was to reach the most vulnerable (women and children especially) in Somalia with health care that had the ability to protect from the cascading effect on health of acute hunger and starvation. A total of 2194 community health workers (CHWs) were deployed by WHO in 29 drought-affected districts. The CHWs reached out to every household possible in the underserved, hard-to-reach and access constrained communities and bridged the gap in access to health care between these communities and the health systems bringing health services close to the people. These CHWs rapidly scaled up community based care for common childhood illnesses by identifying sick and malnourished children, educating mothers on safe practices and reporting on a high-number of diseases, unusual events or cluster of unnatural deaths.

> **During the worst drought in the history of Somalia, the community health workers acted as a bridge between the health system and the communities who were living in remote, underserved and hardest-to-reach settings. Closing this gap, the community health workers delivered basic health care to these vulnerable people close to them which proved to be the lifeline in the fight against diseases and deaths in a situation where millions of people including children were suffering from extreme hunger and severe acute malnutrition.**

The community health workers bridged the gap in access to health care between communities living in marginalized setting and the health systems. Millions of vulnerable populations in dire need of health assistance have received basic health care during the drought in 2022 in the country.

Photo credit: WHO/Ismail Taxta

Frontline heroes: the work of the community health workers demonstrate their value

TThe work of the community health workers in Somalia since 2020, first during the COVID-19 Pandemic and then during the recent drought has laid the foundation of frontline health care services in a fragile context. They have also addressed the critical gender gap in the country during the COVID-19 when there was a widening gap in terms of testing for SARS-COV-2 virus in the country. Additionally, they were helping the women members of the household cope with gender-based violence which increased many folds during the COVID-19 pandemic.[3]

During the COVID-19 pandemic and also during the drought, the community health workers have reached the most disadvantaged communities living in hard-to-reach areas and not only increased the coverage of health services, improved disease detection and surveillance but they have also addressed inequities in access to health which is one of the fundamental rights of everyone living every where.

The community health workers were the unsung heroes of Somalia responding to the COVID-19 pandemic at the frontline. They have detected a third of all suspected cases of COVID-19 reported in Somalia during the first year of the pandemic.

Photo credit: WHO/Fouzia Bano

[3] COVID-19 in Somalia: the gender gap. Information note 8. Mogadishu: WHO Somalia; 2020 (https://www.emro.who.int/images/stories/somalia/documents/covid-19-information-note-8.pdf?ua=1).

During COVID-19 pandemic, the community health workers

- detected 32.7% of all the suspected cases of COVID-19 reported in Somalia from 16 March 2020 to 31 March 2021 through active case search. The positivity rate of COVID-19 cases detected by the community health workers was higher than that among those detected at health facilities (8.6% versus 6.4%).
- identified more close contacts of COVID-19 cases than those identified through the facility-based surveillance (13,279 versus 1,937)
- visited 2 191 700 households and delivered basic health care including risk communication and community engagement information to prevent and mitigate risk of infection from COVID-19 as well as other epidemic-prone diseases.
- reported 21 507 alerts of unusual health events, unexplained deaths or cluster of diseases and 10 471 (48.7%) of these alerts were investigated in a timely manner.

During the drought in 2022, the community health workers

- delivered risk communication messages to the 2 312 857 households they visited.
- screened 385 260 children for malnutrition where 38 414 children were identified to have severe acute malnutrition (SAM) and 92 326 children were identified to have moderate acute malnutrition using MUAC measurement.
- treated 34 171 children suffering from acute diarrhea using oral rehydration solutions and zinc.
- dewormed 130 837 children aged 6–59 months with albendazole tablets.
- educated 523 624 pregnant and lactating women with key messages on infant and young child feeding practices and provided 103 025 pregnant women with iron/folic acid tablets for supplement intake.
- measured oxygen saturation level of 7059 children with pulse oximetry and referred 13 818 children with low oxygen levels and acute respiratory infections to primary health care centres for critical treatment.
- detected 12 736 community alerts of unusual health events, unexplained deaths or cluster of diseases. Of these alerts, 12 179 (95%) were verified within 24 hours and 576 alerts (4.5%) were investigated as a true outbreak alert and timely responded to.

Impact of the work of community health workers: linking communities with the health system

The importance of community-based surveillance systems and CHWs as frontline responders to COVID-19 cannot be overemphasized. Experience from Somalia shows that the community-based surveillance reported a third of all suspected cases detected in the country during the first year of the COVID-19 pandemic in Somalia, while about half of the cases were detected at health facilities.[4] The positivity rate of cases identified by the CHWs was higher than that of health facilities or at points of entry indicating its higher sensitivity compared to that of health-facility surveillance.

Importantly, the CHWs identified more close contacts of COVID-19 cases than those identified for COVID-19 cases detected at health facilities.

In humanitarian crises, health services are often disrupted and detection and testing services for infectious diseases are largely inaccessible because of security and other operational constraints. In these settings, considerable evidence is available on the important role the CHWs play in increasing access to health services for populations in the remote and underserved settings and containing the spread of infection. For example, in Somalia, the village polio volunteers programme was successful in containing the polio virus outbreak in 2014 and maintaining Somalia's wild polio virus-free status.[5]

The CHWs have also performed other functions such as raising community awareness of disease risk factors and symptoms, promoting appropriate preventive practices at the household level, tackling stigma and disseminating messages on health hygiene. When factors such as distance, lack of transport, financial issues or other health system barriers preclude the community from accessing health services, informal health care providers can fill the gap and deliver essential health and nutrition services close to the people.

> **"The experience from Somalia shows that in countries with acute shortage of health workforce and fragile disease surveillance and response system, community-based surveillance using the community health workers can be effective for targeted surveillance in communities living in rural and remote areas with low coverage of health services and facility-based surveillance system."**

[4] Nyagah LM, Bangura S, Omar OA, Karanja M, Mirza MA, Shajib H, et al. The importance of community health workers as frontline responders during the COVID-19 pandemic, Somalia, 2020–2021. Frontiers in Public Health 2023;11. https://www.frontiersin.org/articles/10.3389/fpubh.2023.1215620

[5] Mbaeyi, C, Mohamed, A, Owino, BO, Mengistu, KF, Ehrhardt, D, and Elsayed, EA. Strengthening acute flaccid paralysis surveillance through the village polio volunteers program in Somalia. Clin Infect Dis. (2018) 67:941–6. doi: 10.1093/cid/ciy180

Lessons learned: investment on community health workers can rebuild health system in a fragile setting

The community health workers have played an essential and effective part in Somalia's response to COVID-19 by reaching communities on the ground with crucial information and services. They have also delivered basic health services in marginalized communities during the drought in the country in 2022 who are often excluded from the reach of health services coverage. They were also involved in identifying zero dose children in the community who received their vaccination first-time in their life.

There is a need to extend these frontline health care services in every district and to ensure every Somali community has access to basic and essential health services. Therefore, given the ability of community health workers to engage with people in their communities and provide basic health care and a bridge to primary care services, as proven during the COVID-19 and during the drought in Somalia in 2022, their role needs to be expanded.

By virtue of their understanding of the local context and the trust the people they serve have in them, they can be a crucial link between the community and the health system in fragile settings. Being close to the community, they have proven to be effective in delivery of a range of preventive, promotive and curative health services and they can contribute to reducing inequities in access to care especially in marginalized settings as well as can be a vital cog in improving epidemic and pandemic preparedness and readiness in such settings where there is acute shortage of health workforce.

The community health workers have already proved effective as a vital first line in the response to COVID-19 and a vital cog between the health system and the communities at risk for delivery of essential health care in Somalia.

In the health sector of developing world, the CHWs are recognized as one of the cost-effective interventions to address barriers in access to primary health care, improving continuum of integrated care, and bridging the gap between health care delivery system and the communities. Building on the Sustainable Development Goals

> **The work of community health workers in Somalia have demonstrated that they can be the first contact point between the health system and the communities-a role they can play effectively. This experience supports greater investment in the work of CHWs. These health workers have traditionally been used to extend health services at the community level, particularly in underserved or remote populations, but they can be a vital part of the outbreak and pandemic response to prevent and reduce the spread of infection in any future health emergency.**

Lessons learnt

Prioritizing Community Health Workers (CHWs) as part of a strategic approach to bridge health system gaps, build resilience and address inequity can effectively tackle Somalia's multifaceted healthcare challenges.

Investing in CHWs will lead to enhanced healthcare access, preventive care promotion, fortified primary healthcare, improved maternal and child health, and increased community resilience while also reducing unemployment, empowering women, and generating positive economic returns. This investment will have far-reaching positive effects, creating a healthier, wealthier, and a sustainable Somalia for future generations.

Experience from Somalia and other countries have shown evidence on the effectiveness of CHWs and their potential for improving health outcomes especially where: (i) health workforce resources are limited and access to basic services is low, and (ii) large disparities in health outcomes exist between certain subpopulations and the population at large.

(SDG) health price tag, the WHO investment case 2019–2023 also highlights that investment in Universal Health Care (UHC), including a substantial portion on developing the workforce including CHWs will generate up to a 40% return over a 5-year period.

As the country's health system recovers from pandemic, it is time to rethink their role in achieving universal health coverage in a fragile country like Somalia. They can be effective in establishing community-based disease surveillance and reporting system apart from expanding their role in primary healthcare services such as delivering common maternal and paediatric problems, routine immunization, antenatal and post-natal care as well as tracing and tracking for diseases.

The community health workers are not a cost. Research has shown that they are an investment with health, labour, equity and economic dividends. They are the future for Somalia preparing the country for the next emergency.

Further reading

- COVID-19 in Somalia: the gender gap. Information note 8. Mogadishu: WHO Somalia; 2020 (https://www.emro.who.int/images/stories/somalia/documents/covid-19-information-note-8.pdf?ua=1)
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- 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. Cairo: WHO Regional Office for the Eastern Mediterranean; 2022 (https://applications.emro.who.int/docs/9789292740627-eng.pdf?ua=1)
- Nyagah LM, Bangura S, Omar OA, Karanja M, Mirza MA, Shajib H, et al. The importance of community health workers as frontline responders during the COVID-19 pandemic, Somalia, 2020–2021. Frontiers in Public Health 2023;11. https://www.frontiersin.org/articles/10.3389/fpubh.2023.1215620

Acknowledgement

We thank our donors and partners who have supported the work of WHO to scale up the availability of community health workers in Somalia

Whatever we do, we want to do, there has to be a measurable impact of the work of WHO at the country level. The heart of our transformation should be to deliver public good through our country offices to achieve health for all.

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