

COVID-19 VACCINE COVERAGE IN ETHIOPIA: SUCCESSES, CHALLENGES, AND LESSONS LEARNED

**Experiences and Lessons
learned from USAID's support
in Ethiopia**



Knowledge
SUCCESS

ACKNOWLEDGEMENTS

Knowledge SUCCESS would like to acknowledge USAID implementing partners in Ethiopia for sharing insights regarding their experiences with COVID-19 vaccine implementation in the country.

This document is made possible by the support of the American People through the United States Agency for International Development (USAID) under the Knowledge SUCCESS (Strengthening Use, Capacity, Collaboration, Exchange, Synthesis, and Sharing) Project. Knowledge SUCCESS is supported by USAID's Bureau for Global Health, Office of Population and Reproductive Health and led by the Johns Hopkins Center for Communication Programs (CCP) in partnership with Amref Health Africa, The Busara Center for Behavioral Economics (Busara), and FHI 360. The contents of this document are the sole responsibility of CCP. The information provided in this report does not necessarily reflect the views of USAID, the United States Government, or Johns Hopkins University.



BACKGROUND

Ethiopia's COVID-19 vaccination campaign began on March 13, 2021 (WHO 2021) and initially focused on healthcare workers, the elderly, and those with chronic diseases. It expanded to all individuals aged 12 and older on November 16, 2021. As of December 2023, approximately 69 million vaccine doses had been administered (WHO 2023). An estimated 43.65 million (WHO 2023) of 73.1 million eligible people (Ethiopia MOH 2023) have been fully vaccinated, placing Ethiopia's COVID-19 vaccine coverage at about 60% of its national target.

Like many other countries, Ethiopia faced challenges posed by the COVID-19 pandemic. The government of Ethiopia, in collaboration with international organizations and partners such as USAID, initiated efforts to secure and distribute COVID-19 vaccines.

Community engagement and awareness campaigns played a crucial role in promoting vaccine acceptance and dispelling misinformation. Health authorities worked closely with local communities, religious leaders, and influencers to build trust and encourage vaccine uptake.

Ethiopia encountered logistical challenges, vaccine access and supply constraints, and vaccine hesitancy, but made concerted efforts address them. The success of Ethiopia's vaccination campaign depended on a combination of effective vaccine distribution, public education, and international collaboration.

On behalf of the USAID Mission in Ethiopia, Knowledge SUCCESS conducted a desk review and interviewed key implementing partners to inform this case study and share insights from Ethiopia's COVID-19 vaccine coverage experience with the broader public health community. This case study aims to ensure that the lessons and recommendations from Ethiopia's experience will inform and strengthen future public health emergency responses. ERrepresentatives from the following implementing partners were interviewed for this case study:

Family Health International (FHI 360)

Jhpiego

Amref Health Africa

Management Sciences for Health (MSH)

Development Organization (ISHDO)

John Snow Inc. (JSI)

PATH

Chemonics

Integrated Service on Health and

FACTORS FOR SUCCESSFUL COVID-19 VACCINE UPTAKE

A variety of factors contributed to successful COVID-19 vaccine uptake in Ethiopia. These included political leadership, strong relationships between the government and development partners, a coordinated and integrated supply chain, adaptive vaccination campaigns, capacity strengthening of health workers, and leveraging of existing health structures, as well as the skillful applications of lessons learned from previous health emergencies.

POLITICAL LEADERSHIP AND PARTNERSHIPS

In Ethiopia, close collaboration between development partners and the government in the fight against COVID-19 has proven to be a model of resilience and efficacy. United by a common goal to increase vaccination efforts, the strong government-led partnership provided a coordinated response to ensure the widespread success of the vaccination campaign. Development partners played a pivotal role by providing essential resources, technical expertise, and financial support, bolstering the government's efforts to vaccinate the population. The Government of Ethiopia formed various technical working groups to coordinate the national pandemic response, creating opportunities for government officials and partners to plan, prepare, implement, and monitor COVID-19 vaccination campaigns.

"I think political leadership is extremely important, and I think the government of Ethiopia has been leading efforts to create COVID-19 vaccine awareness to mitigate this pandemic."

Dr. Abraham Loko, Chief of Party, USAID Digital Health Activity



The U.S. Department of Health and Human Services (DHHS) donated Paxlovid to Ethiopia's Ministry of Health as part of the RISE project. Dr. Atul Gawande, USAID Assistant Administrator for Global Health, presented the medication to H.E Dr. Liya Tadesse, Minister of Health (USAID RISE project, Jhpiego Ethiopia).

ROBUST COMMUNICATION CAMPAIGNS

In Ethiopia, COVID-19 vaccination campaigns emerged as a model of resilience and inclusivity, marked by robust strategies that harnessed the power of diverse influencers. Recognizing the significance of community engagement, the campaign strategically enlisted local influencers, including religious leaders, medical associations, elders, and dedicated health volunteers. These influencers served as trusted messengers, bridging the gap between vaccination efforts and their communities. Their involvement not only lent credibility to the campaign, but also helped dispel vaccine myths and misconceptions. These influencers also facilitated community dialogues, which proved to be pivotal forums for open discussion, addressing concerns, and fostering a collective understanding of the vaccine's importance.

“Community dialogues provide the opportunity to identify what the community know, think, and feel about COVID-19. It is used as a strategy to share valuable information about how they can protect themselves from COVID-19. It is especially used in low-performing, underserved, or unreached communities. So, community dialogue is very crucial and especially important to convene as they can be very persuasive.”

Ms. Tirsit Grishaw Legesse, Country Director, PATH Ethiopia



Participants engaged in a community dialogue in Ethiopia (PATH Ethiopia).

CAPACITY STRENGTHENING

COVID-19 vaccination activities have included significant efforts to strengthen the capacity of healthcare workers through specialized training programs. This has ensured they are well-equipped to effectively administer and monitor COVID-19 vaccinations, taking into consideration vaccine storage and handling as well as communicating benefits and safety to clients. Training health workers on logistical planning supported distribution and storage goals, overcoming geographical challenges. Additionally, the establishment of cold-chain systems has been central to safeguarding the integrity of vaccines from manufacture to delivery. Digital health solutions implemented by USAID also had a wide range of impacts. E-learning platforms and expanding hub-and-spoke models led to increased access to COVID-19 treatment, and more than 24 university hospitals were able to provide medical care as well as train staff to a level of expertise that allowed them to serve as references for other facilities. USAID also supported improved quality and use of DHIS2 COVID-19 vaccination data (data entry, data cleaning, and decision-making). Additionally, the National Supply Chain Dashboard was developed and deployed to the MOH server, enhancing end-to-end commodity visibility in the supply chain.

“If you compare pre-pandemic vaccine capacity storage to today, you will see a huge difference. We currently have a large amount of storage capacity due to the deployment of new vaccines and cold chain management and cold chain codes, especially at the national and the sub-national levels.”

Mr. Mengesha Belay, COVID-19 Vaccines Supply Management and Safety Monitoring Coordinator, USAID Global Health Supply Chain Program-Procurement and Supply Management (USAID GHSC-PSM)

LEVERAGING EXISTING HEALTH STRUCTURES AND LESSONS LEARNED

Ethiopia, drawing from its experience handling previous health emergencies such as measles, polio, smallpox, and HIV, has exhibited a remarkable ability to leverage existing health structures in the battle against COVID-19. The lessons learned from earlier crises were instrumental in shaping a responsive and adaptive healthcare system. The infrastructure and multisectoral coordination platforms established during previous eradication campaigns and the extensive network developed for disease prevention and treatment were repurposed to facilitate the distribution and administration of COVID-19 vaccines. Collaborative surveillance and early warning systems were strengthened. The healthcare facilities, trained personnel, and community outreach models developed during past health challenges were integrated into COVID-19 vaccination efforts.

“Ethiopia has had previous epidemics and pandemics that we have gone through, such as smallpox and HIV. These emergencies have strengthened health structures and fostered collaboration among multiple stakeholders.”

Mr. Berhanemeskel Assefa, Principal Regional TB Adviser for Africa & Asia, Management Sciences for Health (MSH)

COMMUNITY MOBILIZATION

Community mobilization played a crucial role in increasing COVID-19 vaccine coverage in Ethiopia. Community mobilization builds trust among community members, provides vaccine awareness and education, and provides a feedback mechanism for vaccination campaigns. It engages, empowers, and involves communities in the process while considering the social, cultural, and contextual factors that influence people's vaccine-related decision-making.

Under the leadership of the government of Ethiopia and with support from implementing partners, community mobilization strategies for COVID-19 vaccine implementation included key messages in local languages, sports activities, community influencers and town criers, and mobile vans.

TAILORED KEY MESSAGES IN LOCAL LANGUAGES

Ethiopia has a rich linguistic history, with a multitude of languages and dialects spoken across different regions. By delivering customized COVID-19 vaccine messages in local languages, the campaign not only enhanced understanding of the vaccine, but also fostered a sense of cultural resonance and trust. Crafting media messages in the local languages of Ethiopia was an important strategic approach. Rumor tracking and the strategic use of social media, coupled with findings of a hesitancy research study, led to a tailored communication approach that ensured crucial information about the virus, preventive measures, and vaccination details were accessible and comprehensible to diverse communities. This approach promoted community engagement and empowered individuals to make informed decisions about their health. Tailored COVID-19 vaccine messages were shared via public service announcements, brochures, mass media adverts, social media posts, branded vehicles, megaphones, and as part of dramas and skits.

“To create an emotional connection with the community, we used one unique technique called ‘hidden drama.’ This is where, within a community setting, we create a scenario—for example, someone pretends to faint, and the community is shocked and emotionally connected to this scenario. A discussion is then initiated about why the person fainted. Someone may say that it is a symptom of COVID-19, but this will provide the opportunity to educate the community on COVID-19 symptoms and the importance of vaccination.”

Mr. Desta Kebede, Social and Behavior Change Director, FHI 360



COVID-19 vaccination campaign material (FHI 360 Ethiopia).

TOWN CRIERS

In Ethiopia’s COVID-19 vaccine campaign, the traditional role of the town crier was revitalized as a powerful communication tool. These individuals were strategically employed to disseminate crucial information about COVID-19 vaccination. Roaming through towns and villages, the town criers played a vital role in reaching communities that might have limited access to mainstream media. Their announcements not only conveyed the importance of vaccination, but also addressed concerns and dispelled myths in a culturally resonant manner. The use of town criers bridged the gap between modern health campaigns and Ethiopia’s rich cultural heritage, transforming these figures into indispensable public health messengers. This innovative integration of traditional communication channels demonstrated a nuanced understanding of the local context, making the COVID-19 vaccine campaign more accessible and impactful across diverse communities in Ethiopia.

Town Crier

ማላሰጪያ

- ለ----- ቀበሌነዎሪዎቻቸው
- የኮቪድ-19 በሽታ መከላከያ ክትባት ፡ዕድሜያቸው 12 አመትና ከዚያ በላይ ለሆናቸው የማህበረሰብ ክፍሎች ከሚያዚያ 21/2015 ዓ.ም ጀምሮ በጤና ተቋማት ፡ በትምህርት ቤቶችና በጊዜያዊ የክትባት መስጫ ደሰጣል! እርስዎም ይከተቡ! ቤተሰብዎንም ያስከትቡ!
- እድሜያቸው ከ2 ዓመት በታች ለሆኑ ላላና ከዚህ በፊት መደበኛ ክትባት ላልጀመሩ ወይም ጀምረው ላቋረጡ ህፃናት የክትባት አገልግሎት ስለሚሰጥ ልጆቻችን ያስከትቡ!
- እድሜያቸው ከ5 ዓመት በታች ለሆኑ የምግብ አጥረት ያለባቸው እና የታመሙ ልጆች ልዩታ እንዲሁም ህክምና አገልግሎት ይሰጣል!

A script for the town crier to call on community members to get vaccinated at the nearest health center. The message also asks parents and guardians to bring their children for routine childhood vaccinations (FHI 360 Ethiopia).

CHALLENGES TO COVID-19 VACCINE UPTAKE

Although successful, Ethiopia's COVID-19 vaccine campaign was not without challenges. Factors such as vaccine hesitancy among healthcare workers and the general community, logistical challenges related to vaccine storage and transportation at district and zonal levels and in areas of conflict, limited vaccine access and availability, and WHO's announcement that COVID-19 was no longer a health priority all contributed to slower vaccination deployment.

COVID-19 VACCINE HESITANCY

COVID-19 vaccine hesitancy in Ethiopia affected the general population, but also healthcare workers, adding a layer of complexity to vaccination efforts. Despite being on the front lines of the pandemic, some healthcare workers expressed reservations about receiving the vaccine, influenced by a mix of misinformation, concerns about side effects, and a general sense of uncertainty. In parallel, the public experienced similar hesitancy, which was often driven by misinformation circulating through various channels, including social media.

To deal with community hesitancy, healthcare workers, social service workers, and community engagement workers went house-to-house to talk with families and generate demand for the COVID-19 vaccine. They used interpersonal communication, as well as brochures and leaflets, to alleviate misconceptions and misinterpretations and educate people about the vaccine's role in preventing COVID-19 deaths.



LOGISTICAL CHALLENGES

Ethiopia faced significant logistical challenges in distributing COVID-19 vaccines—particularly concerning storage and transportation—that were exacerbated by complex geographic and conflict-related factors. The vast and diverse landscape, coupled with limited infrastructure in some districts and zones, posed hurdles in maintaining the required cold-chain storage. Delivery to areas affected by conflicts proved complicated; as a result, the smooth transportation of vaccines to those in need was delayed.

While not needed for COVID-19 vaccination, oxygen is essential for the effective treatment of hospitalised COVID-19 patients. USAID expanded the in-country production and supply of oxygen for medical care through engagement with the private sector and other development partners, including the Global Fund. High-level government engagement and coordination platforms facilitated efforts to ensure sustainable and scalable approaches. Private- and public-sector collaboration has the transformative potential to introduce cost-effective liquid oxygen in public health facilities, but there is a need for greater advocacy at the higher levels

LIMITED COVID-19 VACCINE ACCESS AND AVAILABILITY

The constrained availability and limited access to COVID-19 vaccines also posed substantial challenges to Ethiopia's vaccination efforts. With a population of about 110 million, the demand for vaccines has consistently outpaced the available supply. This limited Ethiopia's ability to swiftly inoculate a significant portion of the population, leaving many vulnerable to the virus. Additionally, last-mile delivery only involved 32% of health facilities, while the rest relied on indirect and inefficient distribution modalities.

The provision of vehicles by USAID, coupled with other interventions, helped address access challenges. However, there remains a major resource gap that particularly impacts conflict-affected regions. The cold chain capacity is better at national and subnational levels; lower-level facilities are unable to store more than one month of vaccines. USAID supported private-sector participation in the WHO's Expanded Programme on Immunization (EPI), but the private sector's ability to monitor and maintain cold chains is also limited and will require focused capacity-building. One of the government's major successes was the implementation of the national platform for forecasting, mapping, coordinating, and collaborating with different stakeholders. This needs to be strengthened to effectively address these and future challenges.

“When we work on community mobilization, we need to work on system strengthening and ensuring availability of vaccines at all times. When we mobilize the community, but are unable to deliver vaccines, there is a credibility issue in the entire health system.”

Ms. Tirsit Grishaw Legesse, Country Director, PATH Ethiopia

COVID-19 NO LONGER A HEALTH PRIORITY

While partners understood that the COVID-19 response in the early stages was not sustainable, the WHO’s declaration in May 2023 that COVID-19 was no longer a global health emergency had various implications for Ethiopia’s vaccination efforts. The announcement signaled a shift in global focus, resource funding, and the overall urgency placed on the pandemic response, as more attention was directed to vaccine integration. In Ethiopia, this change influenced public perception related to COVID-19 vaccination programs, as community members no longer felt the need nor urgency to get vaccinated.

“The WHO announcement created some confusion in the community whether to take the vaccine or not.”

Mr. Desta Kebede, Social and Behavior Change Director, FHI 360

LACK OF DATA

The lack of comprehensive and current data posed a significant challenge to the effective formulation and implementation of COVID-19 vaccine strategies in Ethiopia. Accurate data on population demographics, regional variations in vaccine coverage, and real-time information on vaccine distribution and administration are crucial for developing targeted and responsive vaccination campaigns. The absence of such data hampered the ability to identify and address specific areas of need, allocate resources efficiently, and implement tailored communication strategies. Moreover, data gaps impeded the ability to identify, target, and effectively monitor vaccine coverage involving priority populations, such as pregnant people, healthcare workers, and the elderly. To enhance the success of COVID-19 vaccination efforts, it is imperative to invest in robust data collection, analysis, and reporting systems. This will contribute to a more informed and agile approach to vaccine distribution and public health strategies in Ethiopia.

“When trying to mobilize the community for vaccine implementation, capturing the data and the information provided in a very structured manner is important. At the beginning of the vaccine roll-out, this was a challenge.”

Ms. Tirsit Grishaw Legesse, Country Director, PATH Ethiopia

UNAVAILABILITY OF NATIONAL GUIDELINES FOR RISK COMMUNICATION

The absence of national guidelines for risk communication hindered the efficacy and reach of Ethiopia’s COVID-19 vaccine campaigns. Without standardized and comprehensive guidelines, there was a risk of inconsistent messaging and varying levels of preparedness among different regions and communities. This lack of uniformity diminished the ability of stakeholders to address specific concerns or challenges related to vaccine distribution and acceptance. National guidelines provide a crucial framework for shaping communication strategies, ensuring that accurate information is disseminated effectively and concerns are addressed consistently. Establishing clear and comprehensive guidelines for risk communication is essential to strengthen the success of COVID-19 vaccine campaigns in Ethiopia, fostering a coordinated and informed approach that resonates with diverse communities across the country.

2023 COVID-19 VACCINE INTEGRATION EFFORTS

Driven by the need for efficient and effective use of health resources, the Government of Ethiopia drafted an Integration Implementation Guide in July 2022. The Ministry of Health (MOH) is making COVID-19 vaccines available at primary health facilities and increasing the use of health posts to bring these services closer to the community. In certain health facilities, caregivers are screened for COVID-19 and receive vaccinations when bringing children for immunization. Healthcare program managers have initiated the integration of COVID-19 vaccines with routine immunization and other health services, such as combining measles and vitamin A distribution to streamline and enhance the efficiency of healthcare delivery (USAID 2023).

Integrating COVID-19 vaccination with other services and programs increases the opportunity for a more sustainable people-centered approach; efforts should strengthen adult vaccine platforms by delivering packages of health services that better respond to the needs of groups at higher risk of COVID-19 along their life course. In addition to Primary Health Care and Expanded Programs of Immunizations, integration efforts should build on functional adult service delivery platforms, including HIV, TB, and sexual and reproductive health programs.

“Integration is very important to improve the coverage of any intervention. As we integrate services, we need to ensure that we do not compromise the quality of the services provided as well as the capacity to deliver the services for our health service workers. However, integration is the most effective way to proceed.”

Dr. Girmachew Mamo, Chief of Party, Integrated Service on Health and Development Organization (ISHDO)

RECOMMENDATIONS AND LESSONS LEARNED

Learning from previous health emergencies is important for continual improvement, efficient decision-making, resource optimization, robust collaboration and trust, and effective policy development. Lessons learned in health contexts contribute to a culture of ongoing learning and improvement, leading to stronger and more responsive healthcare systems. Recommendations and lessons learned shared by participants who contributed to this case study include the following:

■ **Partnership Coordination Structures:** Establish and strengthen effective partnerships to prevent effort duplication and ensure a synchronized approach between governments and stakeholders. Involve the private sector in health efforts, as its additional resources and expertise will contribute to a more comprehensive and sustainable approach. Successful collaboration between government entities, international partners, and local communities strengthens the integration of COVID-19 vaccines into primary healthcare and ensures equitable access across all of Ethiopia’s diverse regions.

■ **Strengthening Health Structures:** Integrating COVID-19 vaccination with other health and humanitarian interventions is a critical step forward in conflict-affected areas. Reinforce existing health structures to enhance their resilience and capacity to handle emergencies. Emphasize evidence-based practices, such as e-learning platforms, to reach healthcare workers in remote and conflict-affected areas and more broadly expand communication and training to enhance sharing and continual learning in emergency settings.

■ **Build Health Worker Capacity:** Provide training on vaccine safety and benefits to ensure a knowledgeable and skilled workforce. Train health workers on human-centered design to improve the development of communication strategies that resonate with diverse audiences.

■ **Vaccine Advocacy and Equitable Availability:** Promote vaccine advocacy and ensure widespread availability to encourage uptake through targeted demand creation efforts. Regular mentoring and monitoring of healthcare providers is essential to effectively target priority populations for vaccination; implementing partners should collaborate with the MOH to ensure that data is consistently collected and disaggregated by priority population group.

■ **Learnings from Previous Pandemics:** Incorporate lessons from past pandemics into future health programs and guidelines to provide valuable insights, enhance preparedness, and refine response strategies. Leverage Global Health Security investments to strengthen COVID-19 community-based surveillance and infection prevention control activities. Continue upgrading and using digital tools to improve real-time reporting systems and access to quality health services.

■ **Integration:** Vaccine integration often means an additional skill or task for the healthcare worker. Care must be taken to support healthcare workers in their new role.

■ **Logistics Management Systems:** Implement efficient logistics management systems to ensure the seamless distribution and administration of vaccines and optimize the integration process. Support and facilitate last-mile delivery expansion and improve the capacity of the cold chain system to identify and manage risks. Update Ethiopian Food and Drug Authority (EFDA) regulatory standards and requirements with evidence-based data to strengthen the equity, resilience, and sustainability of immunization programs. Strengthen the national capacity to monitor adverse events following immunization (AEFI).

■ **Standardization of Risk Communication Messages:** Standardize messages to ensure consistent and clear information, minimize confusion, and promote a unified understanding of public health measures. Leverage interpersonal methods and peer-to-peer networks to create demand for vaccination and disseminate accurate information within communities.

REFERENCES

WHO. (2021, March). Ethiopia introduces COVID-19 vaccine in a national launching ceremony. World Health Organization. <https://www.afro.who.int/news/ethiopia-introduces-covid-19-vaccine-national-launching-ceremony>

USAID (2023, October 5). *Covid-19 integration into Primary Health Care Resource Collection and country examples: Document*. U.S. Agency for International Development. <https://www.usaid.gov/document/covid-19-integration-primary-health-care-resource-collection-and-country-examples>



USAID
FROM THE AMERICAN PEOPLE

Knowledge
SUCCESS