Tanzania

Photo: PATH/Olgah Odek

Enabling broader health promotion messaging through a digital health communication repository

COUNTRY-DEFINED CHALLENGE

In September 2022, the Tanzania Ministry of Health, Community Development, Gender, Elderly, and Children (MOH) reported that only 33 percent of the population had been fully vaccinated against COVID-19,[1] falling well below the target of 70 percent suggested by the World Health Organization. In addition, the pandemic's service and supply chain disruptions, resource diversions, and misinformation about COVID-19 vaccines caused significant declines in routine immunization coverage in the country. Routine vaccination for Tanzania's children shows a drop in coverage rates from 86 percent in 2019 to 81 percent in 2021 with the third dose of diphtheria, tetanus toxoid, and pertussis vaccine (DTP3), which is often used as a general indicator of routine vaccination coverage.[2] Although Tanzania nearly regained pre-pandemic coverage levels in 2022 (84 percent), the immunity gap caused by the pandemic led to increased measles transmission, with sporadic measles outbreaks in some districts in 2022 and 2023.

Digital tools have the potential to significantly improve vaccination coverage, and Tanzania uses several different digital platforms to manage its national immunization program. For tracking data, Tanzania uses the Vaccine Information Management System (VIMS). VIMS merges immunization data from routine immunization, COVID-19, and vaccine supply chain digital platforms, making it a useful central planning tool. However, VIMS faced technical challenges that made it difficult for the MOH to make informed, real-time decisions around immunization planning and strategy. The MOH therefore sought DRIVE Demand's help with assessing what upgrades were needed for VIMS as well as building local capacity for upgrades.

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To improve uptake of both COVID-19 and routine childhood vaccinations, the MOH sought to deliver digital social and behavior change (SBC) messages among target communities. To do this effectively, the MOH requested DRIVE Demand's help to create a single digital repository for all health communications and media types, allowing for accurate identification of MOH-approved messaging and mass distribution through health implementing partners across the country. The MOH also requested more guidance on the most effective SBC messages for influencing behavior change in under-immunized communities.

SOLUTION

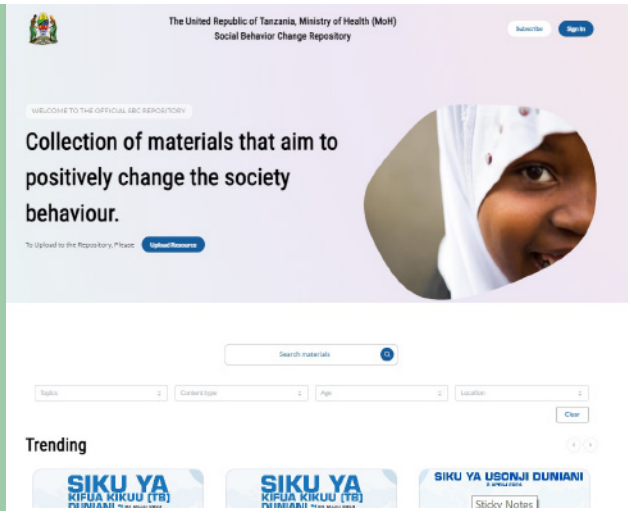
Conducting analysis for optimized use of the Vaccine Information Management System

At the start of the project, DRIVE Demand Tanzania conducted a VIMS assessment that identified challenges related to reporting, training, technical infrastructure, interoperability, as well as affordability of data bundles. Based on this assessment, the DRIVE Demand Tanzania team hired MonitAfrica to conduct a root-cause analysis to inform the needed VIMS enhancements and software upgrades.

A District Immunization and Vaccine Officer from Kibaha District explains VIMS reporting to members of the PATH DRIVE Demand team. Photo: PATH/Olgah Odek

MonitAfrica completed its root-cause analysis of VIMS in October 2023. Later that month, the team presented these findings and shared all documentation with the MOH. The MOH plans to complete the technical upgrades through a separate investment guided by DRIVE Demand's assessment, analysis, and guidance after having gathered input from digital health stakeholders in the country.

Additionally, one of the MOH's priorities for VIMS was the transition of the VIMS server from the Amazon AWS cloud server to a locally owned and maintained MOH server. The DRIVE Demand Tanzania team facilitated this transition in December 2023 to support ongoing country-led ownership and sustainability.



Screenshot of Tanzania's DHPCR, which was developed through the DRIVE Demand project and launched in February 2024.

SOLUTION

Developing the Digital Health Promotion Communication Repository

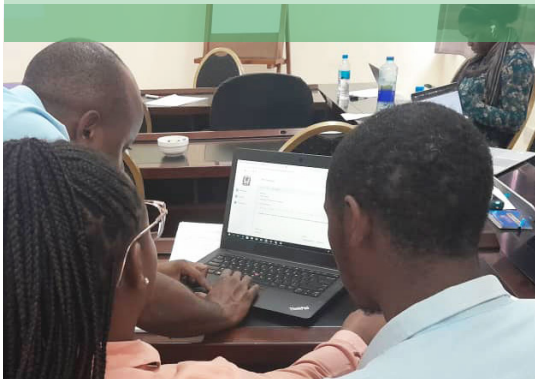
Following discussions with MOH and partners, the DRIVE Demand Tanzania team met with a user advisory group (UAG) to figure out the technical requirements needed to develop a single platform for storing, managing, and delivering all health messaging content, including text, audio, and photos.

Having gathered the requirements, the team then oversaw the technical development of the Digital Health Promotion Communication Repository (DHPCR). Technical development was completed in November 2023, testing was completed in January 2024, and the final product was officially launched in February

2024 with capacity building and use workshops held in March and April to socialize the platform with MOH and health implementing partners.[3] Additionally, DHPCR was integrated with TalkWalker, a social listening digital tool that enables the MOH to monitor language and gather insights on how the DHPCR is used.

The DHPCR is a searchable, curated collection of health communication. In addition, the MOH can utilize its materials to send messages directly to health workers and caregivers to improve health service outreach. The DHPCR has been championed and owned by the MOH from the start. As of March 2024, the MOH took over hosting from DRIVE Demand. As of March 2024, it had been used to deliver 321,500 SBC messages via short message service (SMS) texts to community health workers and caregivers of children under five years of age who were under-vaccinated, based on contact and immunization coverage data from the Tanzania Electronic Immunization Registry (TimR).

As of March 2024, DHPCR had been used to deliver **321,500** SBC messages



Tanzania Ministry of Health staff attend the DHPCR training-of-trainers in Morogoro region in March 2024. Photo: PATH/Isaac Sahera

To ensure sustainability, DRIVE Demand Tanzania developed a national training of trainers on the maintenance of DHPCR. The training of trainers was then implemented by the MOH in Morogoro region in March 2024 for 15 MOH staff. These national trainers will then train district-level users, cascading the reach down to lower-level users. At the project close, all DHPCR design, development, training, and use documents were shared with the MOH. At the request of the MOH, a short four-minute video was also created to help socialize the use of the DHPCR and market its availability.

SOLUTION

Sending SBC messages with the DHPCR

While the DHPCR was being developed, DRIVE Demand and the MOH sought to review and enhance the social and behavior change (SBC) messages that would be managed through the repository. The DRIVE Demand team met with the MOH and Breakthrough ACTION in September 2023 to review existing messages related to COVID-19 and routine immunization. In total, the team identified and validated 51 messages for accuracy. In September 2023, the final messages were integrated into the completed DHPCR and used for SMS delivery to caregivers and community health workers sent through a local telecommunications company.

Busara leads the focus group pilot session in Kibaha District, Tanzania. Photo: PATH/Olgah Odek

SOLUTION

Informing future SBC efforts through focus group research

In parallel, to better understand local vaccine hesitancy and levers for improved uptake to inform SBC messaging for Tanzania and regionally, DRIVE Demand enlisted the Busara Center for Behavior Economics to conduct behavioral research in four locations across the DRIVE Demand project: Bamako, Mali; Dar Es Salaam, Tanzania; Kampala, Uganda; and Lusaka, Zambia. The study was designed to use focus group discussions to gather information on three populations: adults who had not received the COVID-19 vaccine in the past year; pregnant people who had not received the COVID-19 vaccine in the past year; and health care providers who provide vaccination. In Tanzania, focus group discussions occurred in March 2024 following an initial pilot in Kibaha District in early 2024. All findings across the four countries are presented in *Dynamics of Vaccine Hesitancy: A Practitioner Playbook*.[4]

ENSURING PROJECT SUSTAINABILITY

As a two-year project, DRIVE Demand Tanzania sought to ensure that all activities could be sustainably carried on after the life of the project to enable lasting impact. To do this, the team partnered closely with the MOH throughout the project to ensure alignment, a shared vision, and adequate capacity to manage efforts going forward. Since the beginning of the project, the Tanzania MOH displayed strong leadership and a high level of engagement with its many implementing partners in the digital health space. The MOH's continued support resulted in digital tools that fit into the established digital health roadmap, which can be leveraged for use across health areas including for future childhood and adult vaccination, future emergency response, and time-sensitive health outreach.

Key to the continued support and strong relationship was the establishment of a user advisory group early in the project to create a continuous feedback loop between project technical experts, MOH, and community representatives. Additionally, the training sessions—including the national training-of-trainers—will help ensure the sustainability of the newly developed DHPCR.

Pilot focus group discussion in Kibaha District in January 2024.
Photo: PATH/Irene Kemilembe

STRATEGIC RECOMMENDATIONS FOR THE MINISTRY OF HEALTH

1. **Establish partnerships** across communities and with other health implementing organizations.
2. **Expand and prioritize capacity strengthening** in health promotion via coordination at district and regional levels.
3. **Leverage user contributions and crowdsourcing** in SBC material development.
4. **Leverage sustainable open-source technology** for interoperability, adaptability, and scalability. Use data standards and architecture to ensure efficient health systems.
5. **Encourage continuous monitoring and evaluation** through the development of a robust monitoring and evaluation system.
6. **Engage communities** from the start for impactful, hyper-local, culturally-elevant content.
7. **Enable research organizations and academia to add to the repository.**

References

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3. The United Republic of Tanzania, Ministry of Health (MoH) Social Behavior Change Repository. Available at: http://sbcrepository.org/.
4. Busara Center for Behavioral Economics and PATH. *Dynamics of Vaccine Hesitancy: A Practitioner Playbook*. 2024.

About DRIVE Demand

With support from The Rockefeller Foundation, Digital Square at PATH launched the Digital Results Improve Vaccine Equity and Demand (DRIVE Demand) project in June 2022 with the goal of increasing vaccine demand and acceptance rates in six countries: Honduras, Mali, Tanzania, Thailand, Uganda, and Zambia. By driving demand for COVID-19 vaccination awareness, acceptance, and activation, the project aims to increase each country's overall vaccine uptake while also strengthening the broader routine immunization program for long-term sustainability.