Group photo of participants at the Zambia HCBP 5-Year Health Hotline Strategy Workshop .

CASE STUDY

Developing a Telehealth Solution: Insights from the Replication of Health Center by Phone in Zambia

Summary

This case study demonstrates the replication of the Health Center by Phone (HCBP) solution in Zambia. It offers a blueprint for other countries aiming to enhance their public health response through telehealth initiatives.

Key Takeaways:

- **Enhanced Emergency Response:** Telehealth solutions must be embedded within existing national health systems to effectively respond to emergencies and outbreaks and provide timely and accurate health information to the public.
- **Stakeholder Collaboration:** Successful implementation and sustainability of telehealth services require effective collaboration with various stakeholders.
- **Comprehensive Toolkit:** The toolkits developed by VillageReach, the Ministry of Health of Libya and the World Bank provide detailed guidelines for governments and service providers working with governments to establish and sustain nationwide health hotlines or telemedicine services.
- **Strategic Planning:** Developing a costed five-year strategy and a one-year implementation plan is essential for setting up, expanding and maintaining telehealth services, ensuring they meet the evolving health needs of the population.

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Introduction

The HCBP initiative began as a pioneering mHealth initiative launched in Malawi. Initiated by the Malawi Ministry of Health (MoH) in 2009 and further developed with VillageReach in 2011, HCBP (called Chipatala Cha Pa Foni (CCPF) in Chichewa) provides Malawians with 24/7 access to certified health information via a toll-free number. This service allows individuals to connect with trained health workers and access interactive voice-recorded messages on various health topics, including COVID-19, sexual reproductive health, family planning, nutrition and adolescent health. In 2019, the initiative was transitioned to Malawi MoH ownership, with VillageReach continuing to provide technical assistance for sustainable impact and innovation.

CCPF expanded nationwide in Malawi, offering health information on a broad range of topics and providing linkage to emergency medical services. During the COVID-19 pandemic and subsequent cholera outbreaks, the Malawi MoH relied heavily on CCPF for community outreach and accurate information dissemination. Notably, during Cyclone Freddy, CCPF facilitated emergency response efforts, coordinating first aid care and rescue operations and addressing the increased need for psychosocial support.

Building a Blueprint:

The National Telemedicine Toolkit

Participants at the Zambia 5-Year Health Hotline Strategy Workshop in Lusaka, Zambia.

Leveraging the success of CCPF, VillageReach, the MoH of Libya and the World Bank developed two comprehensive toolkits for establishing national telemedicine and health hotline services, one for governments and another for service providers. Launched in 2023, these toolkits guide governments in low- and middle-income countries through planning, implementing and sustaining health hotlines. They include a phased approach covering assessment, design, strategy development, funding and scaling of services.

HCBP: A Scalable Telehealth Solution

HCBP is an integrated telehealth solution that improves health outcomes by providing access to verified health information and referral services to the public, empowering them to make appropriate and timely decisions on preventive healthcare and seeking curative healthcare services. This platform is accessible through voice calls, Interactive Voice Response (IVR), Unstructured Supplementary Service Data (USSD) messages, SMS and Artificial Intelligence (AI) enabled chatbots. As a trusted source of health information, the platform effectively bridges the gap between governments and communities.

HCBP collects vital data from the community, giving the government real-time visibility into the health system. Live dashboards enable early disease detection and detailed reporting, ensuring the health system can effectively respond to and manage pandemics and emergencies. With these robust features, the platform strengthens the health system's resilience against shocks and stresses, safeguarding public health.

Adapting HCBP for Zambia

1. Landscape Analysis

The journey to replicate HCBP in Zambia began with a landscape analysis, evaluating the feasibility of replicating the HCBP model. VillageReach engaged the MoH and mobile network operators to assess existing infrastructure needs. The analysis revealed a fragmented landscape with data discrepancies and platform deficiencies. Stakeholders emphasized the need for a national health hotline integrated within the MoH, robust regulatory frameworks and centralized reporting systems.

Proposed strategies included policy development, inter-agency communication, centralized reporting systems and database creation to enhance disease outbreak tracking capabilities.

VillageReach Vice President, Global Programs, Dr Bannet shakes hands with the ZNPHI Director General Prof Roma Chilengi

2. Telehealth in Action: Addressing the Cholera Outbreak

In December 2023, a severe cholera outbreak struck Zambia, resulting in 21,007 reported cases and 702 deaths by March 2024. In response, VillageReach provided technical assistance to:

- Deliver accurate information
- Create real-time health check mechanisms for patients in cholera centers and their next of kin
- Upgrade the Zambia National Public Health Institute's (ZNPHI) call center capabilities
- Coordinate stakeholder efforts
- Develop data-driven capabilities for ZNPHI.

The response encountered several challenges, including securing partners, obtaining necessary approvals and funding issues that caused delays in recruiting call center agents and setting up technology. Despite these hurdles, the effort fostered innovation and collaboration. It involved the Zambia Government's MoH's Information and Communication Technology (ICT) department, the Disaster Management & Mitigation Department, Reach Digital Health, and Liquid Technology.

This experience underscored the critical need for a national, integrated health hotline. Integrating telehealth solutions within health systems before a crisis hits ensures better preparedness to manage and respond to emergencies effectively, saving lives, streamlining responses and mitigating the impact of future health crises.

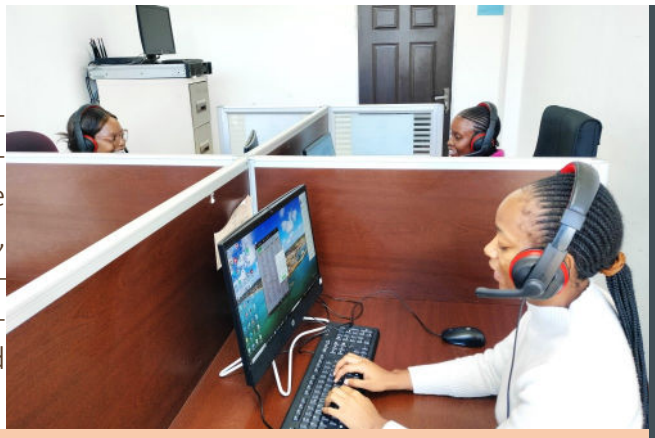
3.Zambia Charts a Course: The 5-Year Health Hotline Strategy Workshop

In April 2024, VillageReach and ZNPHI hosted a workshop with over 50 participants from various stakeholders to develop a comprehensive five-year strategy and a detailed one-year work plan for Zambia's national health hotline. The workshop utilized SWOT analysis, vision building and strategic planning to set a clear path for the future.

In the first year, the focus will be on establishing a multi-sectoral task force, creating a call center with an appropriate CRM system and implementing live dashboards for disease detection. This is in addition to securing partnerships and rolling out telemedicine and emergency response services. Over the subsequent years, the strategy will focus on expanding services, increasing coverage and integrating new technologies to enhance the hotline's capabilities.

Key Learnings

Key learnings from the workshop emphasized the importance of allocating sufficient time for strategy development, involving diverse stakeholders and documenting the process thoroughly. Engaging mobile network operators, non-governmental organizations (NGOs) and academic institutions is crucial to bringing various perspectives and resources. This collaborative approach ensures a holistic and effective strategy.



Call center operators at the Zambia Health Hotline in the Zambia National Public Health Institute. Photo credit: Ronald Ngeno

The Road Ahead

VillageReach and ZNPHI refined the five-year strategy and one-year work plan following the workshop. The next steps involve validating the final versions, providing technical support for costing the strategy and mobilizing resources for implementation.

Further, this year (2024), WHO created the Global Initiative on Digital Health (GIDH) as a vehicle to prioritize country needs, align resources, build capacity and converge efforts for country-led development and adaptation of digital health technologies – with the ultimate goal of catalyzing digital health. The establishment of a Global Telehealth Community of Practice (GTCoP) by VillageReach, the Geneva Digital Health Hub (GDHub), the International Society for Telemedicine and eHealth (ISfTeH) and the WHO, which aims to facilitate coordination and knowledge exchange among telehealth implementers nationally and globally, complements and aligns with the GIDH.

As Zambia begins implementing the five-year strategy for developing a sustainable telehealth solution, establishing a national telehealth community of practice can also benefit the country by bringing together the private sector, NGOs and the government to work together towards making its telehealth sector sustainable and more responsive to the needs of its population.

Ultimately, the goal is to develop a sustainable, integrated health hotline that empowers Zambians with critical health information and strengthens the country's public health response.