Digital Health Case Study Series

Digital Platform to Empower Local Community Health Programs

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ABOUT INNOVATIONS IN HEALTHCARE

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Introduction

reach52 is a health-tech social enterprise addressing access and affordability challenges for underserved rural populations in low-and-middle-income countries (LMICs) through community-level programs, leveraging a digital platform and network of community health workers (CHWs). reach52's digital platform includes features to empower CHWs, while also providing data insights to the reach52 team, local partners, and funders. reach52 trains CHWs to use this platform to support outreach activities, screenings, health promotion activities, and referrals to health facilities. The organization synthesizes data collected through the tool to inform program design and development of organizational priorities.

The organization was established in 2016 and currently runs programs in 5 countries. As of February 2022, reach52's programs have collectively reached 900,000+ beneficiaries, including Cambodia (11.0% of total beneficiaries); India (62.3%); Indonesia (15.8%); Kenya (1.3%); and Philippines (9.6%). Reach52 aims to reach 300 million people by 2030.

Developing Digital Tools for Data-Driven Community Health Programs

reach52 aims to improve health access in rural areas by implementing programs that leverage its digital tools to effectively reach underserved geographies. In many LMICs, health systems are under-resourced, with a lack of skilled health workers, such as doctors and nurses, and limited mechanisms to ensure sustainability. The reach52 team has implemented a solution that leverages low-cost, offline-first digital tools to empower and strengthen local health system capacity, particularly among frontline CHWs, with a sustainable model to support services that are affordable for target populations.

Through its mobile platform, reach52 recruits, trains, and manages networks of digitally equipped CHWs in rural areas of LMICs. Using the platform, CHWs are provided with monetized tasks focusing on community health promotion, population screening, and connecting patients to health information, products, and services. reach52 uses an iterative approach to continually improve its programs: the team collects health data; analyzes those data to understand the health needs in target communities; then applies these data insights to program design and implementation. reach52's programs also often incorporate task shifting to empower CHWs to take on further responsibilities in preventative health promotion and community screening activities.
The Product: reach52 Access

- In 2016, reach52 launched the first version of its mHealth platform, called “Access,” for use by CHWs in rural, low-resource settings. reach52’s Access platform is designed to be used as a last mile extension during outreach services. The platform’s functionality includes individual-level health data collection and creation of health profiles; a digital marketplace providing beneficiaries with access to a catalogue of affordable health products and services; and features to support health promotion campaigns. The Android application links to a web-based data insights dashboard to drive decision-making for the reach52 team and for other stakeholders, including communities, NGOs, and public and private sector partners.

As the organization has grown and taken on more projects, the team has improved the platform and expanded the scope of data collection by refining indicators for both community health and program evaluation to align with impact and UHC goals. In 2021, Access underwent a ground-up rebuild, with the new version being released later that year to coincide with the launch of reach52 services in additional markets. Processes have been updated and improved by adding data checks for quality assurance and fraud prevention. In-app functionality to financially incentivize CHW’s health data collection efforts is also being rolled out. Under the current build, reach52 Access supports fully offline functionality, requiring network access only occasionally to sync data with the cloud. Additionally, the platform can be easily adapted and used in multiple countries and for projects that may vary in design, target population, or health condition focus, allowing for smooth expansion to new geographies and for the collection and analysis of comparative health data to further improve programs.

Lessons Learned

- The importance of context-specific usability—designing processes and adapting digital tools to fit the users and their environments—has been highlighted in research on digital health, particularly in low- and middle-income countries where CHWs may lack training or experience with digital tools. Context-specific usability also emerged as a key lesson from reach52’s experiences adapting its tools for use by CHWs in rural communities.

The reach52 team learned that local contexts, needs, and behaviors must drive user interface (UI) and user experience (UX) design approaches: design elements that are considered simple and easy-to-use based on experience, research, and common practices in some settings may instead add complexity and difficulty in other settings. Through continuous user testing and feedback, the reach52 team learned that its users found tools simpler to use when the tools included more clicks to move through a process — for example, including a button to click to progress to each step in a data entry workflow for CHWs instead of minimizing the number of clicks required to complete the data entry by including multiple fields on one page. This interactive, user-centered design process prompted a shift in thinking, as fewer clicks are often prioritized in UI/UX design. The team continues to gather user feedback to drive design choices and is working to further improve its tools through user research based on this key learning.
The regulatory landscape for health services is often incredibly complex and can vary greatly between markets, and national digital health frameworks may be under-resourced or absent altogether. Since expanding from the Philippines to Cambodia in 2019, then later to India, Indonesia, and Kenya, the reach52 team faced challenges in adapting to local regulatory requirements and building stakeholder engagement. Although frameworks to assess and overcome legal challenges to developing and implementing digital health innovations have been proposed, comprehensive national-level digital health strategies and global harmonization of digital health standards, best practices, and principles are still in early stages. The reach52 team found that many of the countries they were expanding into lacked clear comprehensive legal frameworks that fit innovative digital health solutions that differ from traditional healthcare models. When reach52 first launched in the Philippines, the team created new legal entities and managed programs with internal staff. However, processes were often slow and cumbersome, and the team realized that the programs lacked scalability. In addition, the team learned that effective and sustainable stakeholder engagement is an incremental process developed over long periods of time that requires increasing trust from communities, beneficiaries, and partners. To adapt based on these experiences, reach52 shifted its approach to center around collaborative local partnerships from the outset.

With this locally focused approach, although reach52 still faced unique and complex regulatory requirements in each country, particularly around data collection and storage, reach52 could shift its operations to supporting the use of its platform by local partners who lead implementation on the ground. Experienced implementation partners could roll out reach52's model in communities where the partners already had an established presence, understanding of local contexts, existing stakeholder relationships, and community trust. These partners could also operate services under their existing registrations and take on responsibility for ensuring compliance with relevant legal and regulatory frameworks, while the reach52 team focused on supporting service provision through compliance checks, maintenance, and updates of its platform and providing technical assistance to implementation partners.
Recommendations

1. From the outset, center implementation around collaboration with local partners that are familiar with the relevant contexts, including the needs, behaviors, and challenges faced by populations as well as legal and regulatory frameworks.

   Work alongside these local collaborators through sustainable partnerships rather than attempting to expand into new areas by establishing entirely new entities.

2. Incorporate capacity strengthening activities into plans.

   Introduction of new digital tools should be accompanied by training on the tools, strengthening of overall technology literacy, and continued support of end-users, particularly in low-resource settings where baseline digital literacy levels are often low.

3. Plan to spend time and effort on user research.

   Plan to spend time and effort on user research when initially creating formats and workflows as well as throughout implementation to adapt based on the digital literacy levels of target users since digital literacy levels may vary — both between and within different communities. Recognize that even with background research and extensive planning, continuous adaptation to realities on the ground is inevitable.

4. When designing the UI and UX of digital tools, involve user groups from the outset and focus on user research, testing, and feedback to define design principles.

   Recognize that designs that are considered simple and easy-to-use from one perspective may not translate to other contexts and be open to shifting design approaches to adapt to specific user groups and settings.

5. Identify and work with policymakers to improve shared understanding of legal and regulatory barriers faced by social enterprises.

   Work with policymakers and stakeholders on national and international levels to align on potential ways to support social enterprises’ efforts to better navigate complex and extensive regulatory requirements and to support global harmonization of digital health frameworks in alignment with the WHO’s Global Strategy on Digital Health, 2020-2025.6
References


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