# HEALTH SYSTEMS STRENGTHENING
## PRACTICE SPOTLIGHT

# DIGITAL FINANCIAL SERVICES FOR HEALTH
## Considerations for Integrating DFS in Health System Strengthening

## INTRODUCTION

As countries work toward universal health coverage (UHC), digital financial services (DFS) for health can contribute to achievement of this goal. Applications include digital health insurance; health savings accounts; credit, transfers, remittances, and loans; vouchers for health care; payments for health care or insurance by participants; and bulk purchases and payments across the health system, including payments to health workers.

Building on the 2019 publication The Role of DFS in Accelerating USAID's Health Goals, USAID's Bureau for Global Health, via its Office of Health Systems, commissioned studies on the role of DFS in advancing financial protection and supporting improved health system performance. The studies included 1) a global evidence review of DFS for health conducted by Abt Associates through the USAID Local Health System Sustainability Project (LHSS) (Mangone et al. 2021), and 2) an analysis of two programmatic case studies of DFS for health by Management Sciences for Health (MSH) through the Digital Square initiative (Wilson et al. 2021).

### DEFINITIONS

**Digital financial services:** Any financial services accessed and delivered through digital channels, including payments, credit, savings, remittances, and insurance.

**DFS for health:** Financial transactions -- including payments, savings, loans, credit, insurance, remittances, and transfers -- through digital channels such as mobile phones, Unstructured Supplementary Service Data, electronic cards, computers, and other electronic instruments in a health systems context.

**Digital financial inclusion:** Digital access to and use of formal financial services by excluded and underserved populations. Such services should be suited to the users' needs and delivered responsibly, at a cost both affordable for users and sustainable for providers.

**Mobile money/mobile wallet:** A type of digital financial services that lets users deposit, withdraw, and transact funds in an account associated with a mobile phone SIM card. Account holders do not need bank accounts. Mobile wallet may also refer to a wider range of services.

The case studies and global evidence review were undertaken to examine issues in DFS for health implementation including:

- What is the experience in implementing the program with regard to:

    a. facilitators and barriers to successful implementation?

    b. program adaptations?

    c. pandemic-related changes?

- How is the program perceived to influence health systems performance?

- What has been the participant experience of the program with regard to:

    a. financial protection?

    b. service demand/utilization?

The global evidence review found that the following key factors serve as enablers or barriers to DFS for health:

- Political and regulatory environments - Clear regulations on digital banking, mobile money, and insurance protect customers and create opportunities for new products. A political mandate or high-level government support can expedite DFS implementation.

- The digital infrastructure and ecosystem - An insufficient digital infrastructure can be a barrier to equitable uptake of DFS in health. Establishing interoperable systems and digital payment ecosystems are key to expanding DFS.

- Health system maturity and facility readiness - Digitization of parallel and upstream systems facilitate DFS implementation. Digitizing the claims process of a national health insurance program incentivizes digitization at the health facility level.

- Financial infrastructure and culture - Labeled accounts and transaction fees can deter social appropriation and improve self-control. Consumer understanding of the value of financial protection products is still low.

The case study research led by MSH in Rwanda and Kenya produced important learning on the influence of DFS on health system performance and the participant's experience with regard to financial protection and demand for and use of health services.
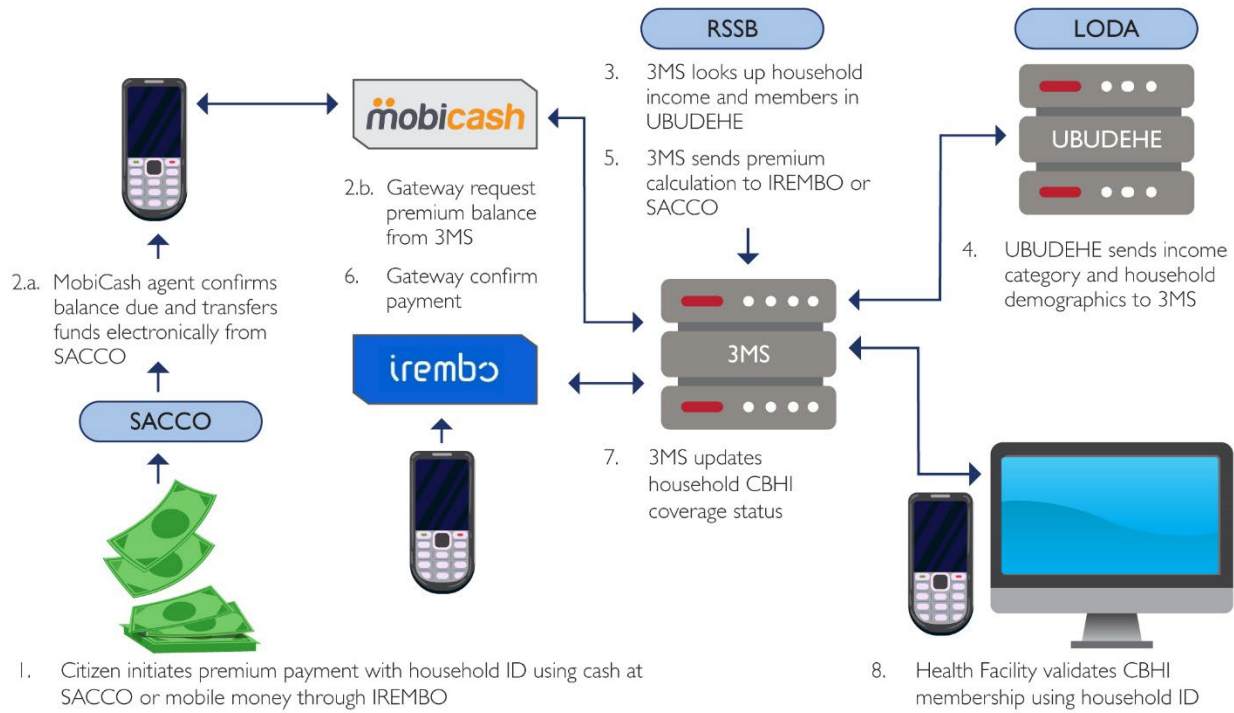
# CASE STUDIES

## Rwanda: DFS-integrated Community-based Health Insurance

The Rwanda case study looked at the community-based health insurance (CBHI) program managed centrally by the Rwanda Social Security Board. This program uses digital technologies for client management and mobile payments for clients to pay their insurance premiums. CBHI is a government-led program to advance UHC and is implemented nationally.

The CBHI Mutuelle Membership Management System (3MS) was developed as an interoperable software platform that supports participant and premium management through online registration, membership validation, and connection to electronic payment gateways—including the government's IREMBO payment gateway—to facilitate mobile money transactions between individuals and service providers. The various pieces of the system were developed over time to address challenges, including the difficulty of managing a nationwide program with paper-based systems, and to add functionality and efficiency, including through digital payment methods.

The 3MS platform was first developed to support registration and membership validation for the national CBHI program. The system also integrates the national household income categorization database, known as Ubudehe, which is used to determine insurance premium tiers. Separately, the government-wide digital payment gateway, Irembo, was created through a public-private partnership to enable citizens to pay for government services through a variety of digital payment mechanisms. Integrating Irembo with 3MS enabled mobile payments for CBHI membership annual premiums.

## FIGURE 1. INTEROPERABILITY SCHEMA AND KEY FUNCTIONS SUPPORTED BY 3MS



Source: MSH, reproduced from Wilson, et al. 2021.
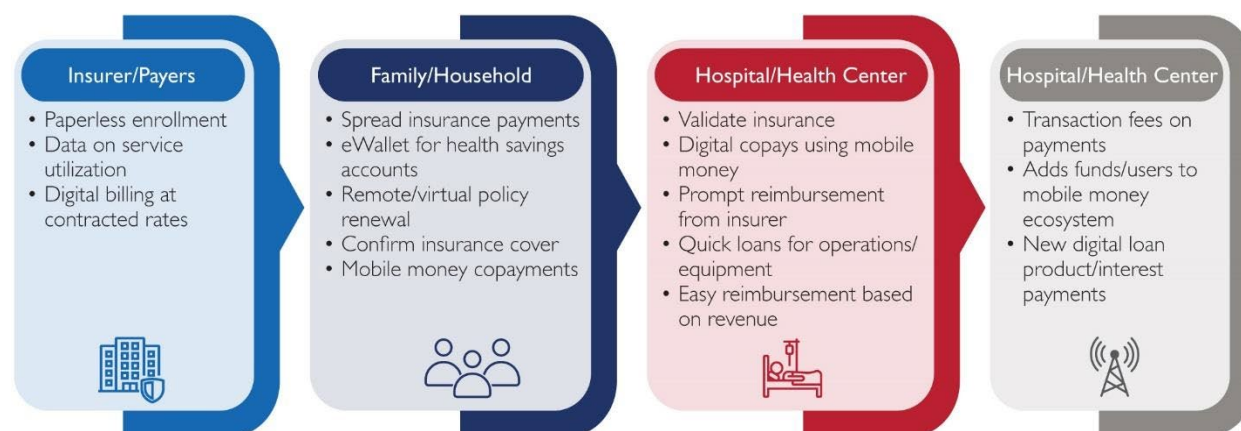


Photo by Joseph Odegu/PharmAccess

## Kenya: DFS-integrated Programming

The Kenya case study focuses on several programs introduced by the PharmAccess Foundation. The social enterprise CarePay runs a digital health platform called M-TIBA that connects users, health providers, and payers in real-time--allowing for identification of users, and claims submission and handling by providers and payers.

The case study included the Innovative Partnership for Universal Sustainable Healthcare initiative using the M-TIBA mobile platform to connect low-income women of reproductive age and their families to a digital savings plan to contribute to enrollment in Kenya's National Health Insurance Fund. The program entitled them to free coverage for a year, with the expectation that they would begin contributing to the premium in the second year of participation. The Medical Credit Fund lending program uses the CarePay platform and includes cash advance loans for health facilities and mobile asset financing loans for health providers to buy medical equipment.

The case study research identified numerous perceived benefits of DFS for health, as shown in Figure 2.

## FIGURE 2. PERCEIVED BENEFITS OF DFS IN KENYA PROGRAMS CASE STUDY



**Insurer/Payers**
- Paperless enrollment
- Data on service utilization
- Digital billing at contracted rates

**Family/Household**
- Spread insurance payments
- eWallet for health savings accounts
- Remote/virtual policy renewal
- Confirm insurance cover
- Mobile money copayments

**Hospital/Health Center**
- Validate insurance
- Digital copays using mobile money
- Prompt reimbursement from insurer
- Quick loans for operations/ equipment
- Easy reimbursement based on revenue

**Hospital/Health Center**
- Transaction fees on payments
- Adds funds/users to mobile money ecosystem
- New digital loan product/interest payments

Source: Wilson et al. 2021

The Rwanda and Kenya case studies illustrate some of the ways DFS can be utilized in health systems. The case study research (Wilson et al. 2021) and global evidence review (Mangone et al. 2021) highlight implementation considerations relevant to national policy makers, health system and financial managers, implementing organizations, and donor partners. They also reveal barriers and enablers to successful implementation, as detailed below.

## Identified Facilitators

Key factors that can facilitate the implementation of DFS for health identified in the case study research include the following:

- Mature public insurance schemes and network of health facilities

- Existing community-based networks of mobile money agents and community health workers to bridge the digital divide

- Effective collaboration among private, public, and NGO sectors

- Multisectoral investments in the general information and communication technology infrastructure

- A strong government vision for digital technology and high-level political support

- A strong community of software developers to manage and improve the platform

- Trust built across institutions to enable interoperability with national population registration systems

## Identified Barriers

Critical barriers to implementation identified through the case studies include the following:

- Outdated infrastructure not capable of meeting peak demand; spotty internet in some remote areas

- Low digital literacy at the household level

- Lack of electronic payment gateways and APIs - which allow applications to reliably connect even if managed by different entities

- Inadequate training for implementing staff on digital systems

- Target participants face competing demands on their limited income and have limited experience with savings accounts

- Use of low-quality smartphones in implementation produced images that were inadequate for program registration

# IMPLEMENTATION CONSIDERATIONS

The process for implementing digital financial services for health should follow other best practices in health systems strengthening. This can include first identifying and understanding the health system challenge and the bottlenecks to addressing it. Designers and implementers of DFS for health should consider adopting the following practices.

- Use a whole systems approach in designing DFS for health programming, including assessing and building upon the existing digital landscape and engaging relevant stakeholders. Health systems strengthening practitioners should consider how to assess and build upon the existing digital landscape as part of both broader integrated systems assessments and assessments of specific system components.

- Examine opportunities to responsibly use the abundance of data generated by DFS. The use of digital systems, including DFS, creates significant transactional data which may not have been captured by paper-based systems and are available for analysis to gain new insights and potentially better serve target populations. Any use of these data should be done in a rights-respecting manner and aligned to appropriate privacy and data protection standards.

- Consider how to use DFS to help expand financial protection based on the financial realities of the target populations served. This might include, for example, breaking up what used to be an annual or semiannual premium payment into smaller installments, made more manageable through DFS payments.

- Consider incorporating DFS into health care financing initiatives as part of programs to build resilience. For example, the case study research found that DFS-enabled systems helped consumers and providers adjust to some of the COVID-19 pandemic-related shocks. Health systems strengthening practitioners seeking to build resilience can examine opportunities to increase access and efficiency in health care financing initiatives.

- Implementing DFS for health programming often requires engaging with stakeholders who are outside the typical cohort of partners for health program implementers or managers. This may include private sector actors in the digital financial services sector, mobile network operators, and banks. Early engagement and discussion across sectors, as well as within the communities of intended users, can facilitate better program design and implementation.

DFS for health implementation falls within the larger umbrella of digital health. USAID's Digital Health Vision describes four priority investment areas based on global digital health learning to date: Assessing and strengthening country digital health capacity; advancing national digital health strategies; leveraging global goods; and strengthening national digital health architectures. As countries and their partners develop national digital health strategies and implementation plans, the role of and possibilities for DFS integration should be considered and incorporated so that strategies and implementation plans consider opportunities for DFS whether in the near or longer term.

# REFERENCES AND RESOURCES

1.  Mangone, Emily, Pam Riley, and Kenya Datari. 2021. Digital Financial Services for Health: A Global Evidence Review. Rockville, MD: USAID Local Health System Sustainability Project, Abt Associates Inc.

2.  Wilson, David, Sherri Haas, Regis Hitimana, Alexis Rulisa, and Alice Machichi. 2021. Digital Financial Services for Health: Programmatic Case Studies from Kenya and Rwanda. Arlington, VA: Management Sciences for Health

3.  USAID Vision for Action in Digital Health: Details USAID's policy guidance for its investments in digital technologies that support health programs in its partner countries.

4.  The Role of Digital Financial Services in Accelerating USAID's Health Goals: Identifies ways that DFS can catalyze health results by supporting  health systems strengthening functions and strategic outcomes.

5.  Digital Health: Planning National Systems. Course content from the DFS module. 2022

6.  USAID Digital Payments Toolkit 2020: This toolkit is a how-to guide divided into ten step-by-step modules that help stakeholders move from cash to digital payments, including additional tools to support implementation.

7.  DFS Central: Digital Financial Services Resource Guide: A self-service platform for USAID staff and stakeholders interested in using digital financial services to better lives and development outcomes in the places they work.

8.  Mobile Money Metrics: An interactive tool that provides Global Metrics, Mobile Money Prevalence Index (MMPI), Mobile Money Deployment Tracker, and Mobile Money Regulatory Index.

9.  GSMA Mobile Money Programme: Mobile Money Policy and Regulatory Handbook: This guide promotes public-private partnerships and gathers considerations for financial regulators and other stakeholders in mobile money.

10. UN Principles for Responsible Digital Payments Online Learning Course: This course covers the nine principles and serves as a practical guide for governments and other stakeholders involved in digital payments.

11. Better Than Cash Alliance: A partnership of governments, companies, and international organizations that accelerates the transition from cash to responsible digital payments to help achieve the SDGs.

## About the Health Systems Strengthening Practice Spotlight Series

The Health Systems Strengthening Practice Spotlight series is an initiative of USAID's Office of Health Systems. Practice Spotlight briefs contribute to the global knowledge base in health system strengthening and support implementation of USAID's Vision for Health System Strengthening 2030 and the accompanying Health System Strengthening Learning Agenda. Learn more:

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