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EVALUATING DIGITAL FINANCIAL SERVICES ROLE IN FINANCIAL PROTECTION AND HEALTH SYSTEM STRENTHENING

Digital Square RFA #2019-020
December 20, 2019

TECHNICAL APPLICATION

Submitted to:
Digital Square via OAP Platform

Submitted by:
Management Sciences for Health

In collaboration with:
PharmAccess Foundation

Principal contact:
Sherri Haas
Senior Technical Advisor, Digital Health & Health Economics
shaas@msh.org

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LIST OF ACRONYMS

CBHI	Community-based health insurance
DFS	Digital financial services
LMICs	Low and middle income countries
MSH	Management Sciences for Health
UHC	Universal health coverage
USAID	United States Agency for International Development

EXECUTIVE SUMMARY

Digital financial services (DFS) have the potential to significantly support the advancement of individual financial protection and improved health system performance. Management Sciences for Health (MSH) proposes to lead the development of a landscape report examining the role of DFS in two country case studies in support of these goals and documenting the critical implementation success factors for practical use by governments, donors, and others interested in advancing this space.

MSH will collaborate with private sector stakeholders including PharmAccess, government stakeholders, USAID, and experts from across health systems, finance and insurance, and digital financial services sectors. The report will examine the successes key DFS programs in the health sector have had in contributing to financial protection and health systems outcomes, and analyze implementation considerations and critical program components that can enable or hinder success. It will focus on DFS implementations that have achieved scale and longevity, to inform future programing. Implementation will include review of existing literature, consultation with key stakeholders, and development of a systematic approach for reviewing DFS for health successes and implementation experience adopting a process evaluation approach – which is also expected to be a contribution to the DFS for health field. The mixed-methods review approach will be implemented with selected DFS programs, gathering insight and triangulating results across different stakeholder perspectives including DFS implementers, government, beneficiaries, and providers.

Collaborating partner PharmAccess will facilitate examination of innovative M-TIBA-enabled programs as one of the key programs reviewed, providing key insights to ongoing DFS-enabled health insurance for UHC in Kenya. The DFS payment-enabled community-based health insurance (CBHI) program in Rwanda is proposed as a case study of a government-led program reaching national scale.

I. TEAM

MANAGEMENT SCIENCES FOR HEALTH

MSH is a recognized leader in health systems strengthening, with 47 years' experience in 150 countries. It brings deep experience across the focus areas of the activity, including in health financing, resource mobilization, and insurance; as well as in the design and implementation of a range of digital solutions in partnership with private sector and ministries of health. MSH will lead the technical implementation, data gathering, and report writing.

MSH is a holder of the Integrated Health Systems (IHS) IDIQ with the Global Health Bureau and brings strong experience in universal health coverage, health systems strengthening, and innovative health finance; including serving as the Network Manager of the Joint Learning Network for Universal Health Coverage (JLN) Steering Group. MSH supported the design of a digital membership management system for community based health insurance (CBHI) in Rwanda which integrates with several mobile money operators to facilitate household premium payment; a program proposed as a country case study in the approach described below. MSH is also a leader in health systems costing analysis, work which has informed design of national health insurance schemes. MSH is currently develop a tool for costing universal primary health coverage to serve as a resource to countries planning for financing UHC.

MSH also has significant experience conducting landscape assessments in the digital space. MSH developed the six-volume mHealth Compendia with 167 profiles of digital health interventions including DFS interventions and a Reaching Scale edition under the USAID African Strategies for Health. These have served as foundational resources in the digital health space, having been referenced for a significant number of reports as well as in the development of the Digital Health Atlas. MSH has tailored landscaping reviews for specific needs including country reviews to inform national mHealth strategies, supporting cross-sectoral learning and collaboration in the development of the roadmap for the Digital REACH Initiative, and leading country review and creation of a Digital Health for Tuberculosis Care and Treatment Roadmap in Bangladesh. In addition, MSH has led the development of community learning opportunities including a workshop on Digital Financial Services for Health.

PHARMACCESS GROUP

PharmAccess will be a collaborating partner in the activity. PharmAccess is experienced in designing and scaling DFS products for health. They aim to be an innovator and catalyst for practical changes that can be brought to scale, and believe that better functioning healthcare markets are key to the realization of UHC. Their work includes the cost-efficient design of scalable health programs through public-private partnerships by making financial risks transparent and predictable, creating investment opportunities for governments, donors and other parties. To meet the challenge of low health insurance coverage and high individual financial risk from health shocks, PharmAccess has partnered with Safaricom and IT company CarePay to develop a health wallet on a mobile phone, launched as M-TIBA in 2016. PharmAccess and affiliate, CarePay, are engaged in the design, roll-out, and scaleup of DFS for health M-TIBA programs in Kenya, Nigeria, and Tanzania and will serve as a key study example as described in the approach below.

MSH sees USAID as a key member of the team and will plan to engage closely with USAID as well as other key stakeholders, including the organization implementing the complementary global landscaping activity over the course of the program.

TEAM STAFFING

MSH will staff the project with individuals holding significant expertise across the key focus areas, including DFS, digital technology for health, quantitative and qualitative evaluation, and health systems strengthening including health financing and financial protection. The proposed project team comprises the experts listed below, and will have access to additional support through a deep bench of global and country-specific expertise.

Sherri Haas, MPP will serve as Project Director and is designated as key personnel for the project. Ms Haas is Senior Technical Advisor, Digital Health & Health Economics at MSH providing technical and program leadership in digital technologies and data use across projects and at a strategic level across the organization. She has twelve years of experience with a focus on digital technology for health, DFS and DFS for health, data for decision-making, policy analysis, research and evaluation design and communication, and health systems strengthening. Ms Haas has led quantitative and qualitative research and has substantial experience translating research and data into concise and actionable information for diverse audiences. She served as project director of MSH's subaward on the K4Health USAID global project as well as for the google.org-supported NetHope Device Challenge grant scaling a community health worker digital health system, Empowering CHWs in Rural Madagascar and Malawi to Provide Quality Frontline Health Services. Ms Haas holds a Master of Public Policy with a focus on health and quantitative evaluation from Duke University Sanford School of Public Policy, and a BA in Economics and Political Science. Field work experience includes Bangladesh, Ghana, India, Kenya, Madagascar, Malawi, Nigeria, Rwanda, and the Caribbean.

Randy Wilson, MPH, Data Analytics and Digital Health Practice Area Lead at MSH, has over 30 years of experience in public health, with a focus on the design and implementation of MIS and M&E. He has worked as a systems analyst, programmer, logistics advisor, trainer, program evaluator and health planner in many countries (Rwanda 11 years, Congo 6 years, Madagascar 4 years). After serving as Chief Information Officer for MSH, he moved to Rwanda as HIS Technical Advisor for two health system strengthening projects. He has facilitated the creation of strategic plans for digital health, research, and health management information systems; strengthened the monitoring and evaluation and data management capacity of HMIS staff at the central, district, and health facility levels; and designed a variety of web-based and mobile systems for collecting and analyzing data for performance-based financing, community-based health insurance, and community health worker supply chain.

Aleefia Somji, MSc, DrPH candidate, Ms Somji is a Senior Advisor for Monitoring, Evaluation and Research at MSH. She holds an MSc in the Control of Infectious Diseases from the London School of Hygiene and Tropical Medicine and has completed her DrPH coursework at Boston University School of Public Health. She works closely with M&E Directors to strengthen country capacity and provides strategic guidance on monitoring, evaluation, research and health

management information systems in low- and middle-income countries. She has designed and conducted several mixed-methods evaluations, process evaluations, and research studies.

Colin Gilmartin, MSc is a Senior Technical Advisor, Economics and Financing at MSH supporting the design and implementation of programs to advance universal health coverage. He specializes in policy research and analysis, economic evaluation, and financial modelling. Most recently, he supported Ministries of Health in Burkina Faso, South Sudan, and Madagascar in the development of investment cases for national community health programs. Colin began his career working in rural Burkina Faso as a community health development worker with the U.S. Peace Corps. He holds a Master of Science in Public Health from the London School of Hygiene and Tropical Medicine, University of London

PharmAccess will facilitate the data acquisition and contribute to the analysis of the M-TIBA-enabled programs in Kenya, as described in the approach below.

Liesbeth Huisman, PhD in her role of Director of Strategy of the PharmAccess Group, is responsible for setting and supporting the overall strategy at group level and within each of the countries offices. Focusing on how mobile technologies can transform health financing and delivery in Africa so that it can deliver for everyone. Dr Huisman leads PharmAccess' work on use of data-based tools and insights for improved decision making by governments, health insurers and other stakeholders, thereby leveraging the wealth of data that is available on socio-economic status and health seeking behavior of individuals and at clinics. She is also responsible for the work on peer-to-peer remittances for healthcare. She holds a PhD in Theoretical Physics from Leiden University and a master in Physics and a master in Philosophy from the University of Groningen.

II. PROJECT DESCRIPTION

Problem Statement

Universal health coverage (UHC) has been widely adopted by countries, donors, and the international community as a key goal. Despite growing political will and momentum, LMICs face numerous challenges to adequately finance UHC and ensure the entire population can access quality health services without facing financial hardship. For example, many countries lack sufficient public funding for UHC and remain dependent on external and private funding in the health sector. Even in countries that have made substantial progress putting in place national health insurance schemes, out-of-pocket costs for insurance premiums and co-pays can be a barrier for many households, and quality of service is often inconsistent. Identifying innovative methods to move toward this goal are essential, in particular to increase individual financial protection from health care shocks as well as innovations which allow for improvements in health system performance.

Digital financial services, and DFS specific to the health sector, have been identified as a category of innovations that can contribute to both increased financial protection as well as support health system performance. A number of these examples and takeaways are documented in the March 2019 report, The Role of DFS in Accelerating USAID's Health Goals and earlier USAID-supported reports. To move to the next step and provide detailed information for governments, donors, and private sector actors interested in facilitating increased financial protection and improved health systems through DFS requires a deeper dive into key programs. This exercise will focus on the extent to which they have contributed to desired outcomes, and crucially, the implementation considerations which may enable or hinder success.

Approach, Objectives, and Activities

Research in the DFS for health space is a relatively new area, intersecting the mobile/digital health, financial inclusion, and financial protection domains. An additional benefit MSH sees to this work is the opportunity to identify and refine an effective approach for review of DFS for health successes and implementation experience. There are existing guidelines on the reporting of mobile health programs[1] and classifying intervention types[2] for standardization and methods for measuring digital health project maturity[3], and also a range of existing methods for measuring access to financial services, as well as financial protection. We plan to develop a framework for the analysis of the role of DFS in health and health financial protection as an objective of and product of the project.

The primary objective of the project is to conduct case study assessments of digital financial solutions and their role in advancing financial protection and health system performance. The timeline for activities to reach the project objective are shared in Table 1 below.

[1] Guidelines for reporting of health interventions using mobile phones: mobile health (mHealth) evidence reporting and assessment (mERA) checklist. BMJ 2016;352:i1174 http://dx.doi.org/10.1136/bmj.i1174
[2] WHO Classification of digital health interventions v 1.0 https://www.who.int/reproductivehealth/publications/mhealth/classification-digital-health-interventions/en/
[3] WHO mHealth Assessment and Planning for Scale (MAPS) Toolkit. http://www.who.int/reproductivehealth/topics/mhealth/maps-toolkit/en/

MSH's approach will include regular collaboration with USAID and cooperation with the organization implementing the global landscaping assessment under separate funding. MSH expects to engage with the technical advisory groups USAID indicated it would be establishing in relation to this work. MSH understands this group to include key experts from across the DFS, digital health, and health financing space who will be consulted through interviews at key points of the project. The analysis framework described will be validated with Digital Square and USAID. A mixed methods approach will be used for analysis, triangulating results from multiple data types (quantitative and qualitative) and sources including key stakeholder perspectives, and building on a systematic review of the relevant grey and white literature.

MSH with USAID will co-create the approach for the in-depth reviews. We propose adoption of a process evaluation approach. This will concentrate on program review in alignment with the areas shown in Figure 1 to address the key goals of identifying ways in which the DFS program contributed to the outcome goals, and in-depth examination of implementation considerations. This process will review contextual factors that affect and may be affected by program implementation, identify mechanisms of impact, enabling factors as well as potential barriers to implementation, scale, and sustainability.

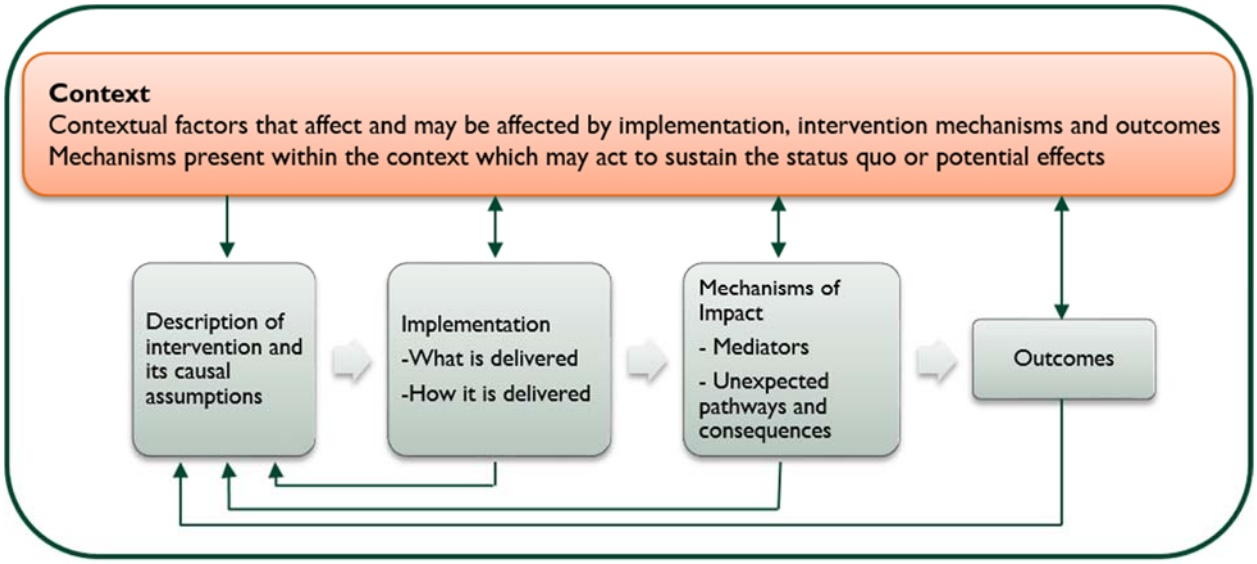

Figure 1 - Key functions of process evaluation and relations among them. Adopted from Moore et. al. Process evaluation of complex interventions: Medical Research

The initial desk review and consultation with USAID will confirm the selection of case studies for in-depth review. A combination of remote and in-country activities will include key informant interviews, focus group discussions, and gathering program data and analyses to systematically collect information and knowledge from private sector implementer, government, client, implementing partner, and donor perspectives. Analysis of the resulting data will be conducted by the project team for input and review by USAID prior to dissemination through DFS, digital health, and health finance networks.

Programs integrating DFS for health come in many different configurations and public-private mixes. Models which have successfully scaled or have the opportunity for scale are of particular interest. MSH has selected the following proposed case studies in Rwanda and Kenya based upon these criteria and focuses on programs that may facilitate improved financial protection and health system strengthening. The proposed case study from Rwanda demonstrates a DFS-enabled program driven from a public-sector approach, while the Kenya case study enables us to examine multiple ways a private sector DFS system can be utilized by private and public sector actors to increase access to and support financing of quality care as the country moves towards UHC. The research approach MSH has proposed is expected to provide learning from innovative and scaled implementations to inform future health systems and DFS programming; and the focus on process evaluation will allow for the generation of insight that can contribute to the global knowledge base outside of the specific country or regional context.

Rwanda Community-based Health Insurance (CBHI) Digital Payment Program

Rwanda has established a CBHI program that provides access to basic primary and referral care for over 80% of the population – including nearly 25% who are classified as indigents. Nevertheless, the annual process of renewing premiums for household members posed significant challenges. CBHI staff had to determine a household's income category and number of household members before issuing an invoice. Payments had to be made through the formal banking structure – a long walk for many – and then families had to often return to their original CBHI section office to renew memberships (even if they had moved far from their home districts). DFS helped to resolve a number of these issues. The Rwanda Social Security Board (RSSB), together with local partners and MSH, developed the Mutuelle Membership Management System (3MS) a web- and mHealth application that automatically calculates household premiums (linking with the national Income Categorization Database – UBUDEHE – also designed with MSH support), enables citizens to pay using a number of options including mobile money operators regardless of which CBHI section they were initially enrolled in, and enables health facility staff anywhere in the country to verify whether or not individuals were covered using either web or mobile SMS. The DFS payment-enabled community-based health insurance program in Rwanda is an example of a government-led program reaching national scale.

Moving toward UHC in Kenya, DFS-enabled Program Review

In support of Kenya's movement to UHC, PharmAccess with CarePay are leveraging the M-TIBA mobile wallet to enable multiple payers to pay for UHC, including contributions from the individual. The i-PUSH program, running in two counties in Kenya, acts as a testing opportunity to understand how these innovations can contribute to expanding health insurance coverage. The program focuses on increasing access to both quality healthcare (including at private facilities) and healthcare financing for women of reproductive age in low income groups. Community health workers enroll low-income women and their families in a National Hospital Insurance Fund scheme through the M-TIBA platform, educate women on healthcare related issues and collect healthcare data. Furthermore, women are stimulated to co-pay for their insurance through behavioral science techniques. Parallel to this, i-PUSH also invests in improving the quality of healthcare providers by introducing the SafeCare approach and by providing them access to small loans through the Medical Credit Fund.

2018, was the first full year of implementation with 13,262 women and their families in Nairobi and Kakamega counties enrolled with the NHIF health insurance and connected to 27 health facilities undertaking SafeCare quality improvement plans. These women were digitally enrolled by trained Community Health Workers. Another aspect of the program is to understand the behavioral barriers to saving for health insurance. In 2019, to date, another 21,656 women and their families in Nairobi and Kakamega were enrolled.

As a collaborating partner, PharmAccess will facilitate access to program data and in-depth assessment of the i-PUSH program, providing key insights on the design, planning, and challenges encountered. MSH will undertake the process evaluation approach as described above.

With stakeholder agreement and as resources allow, MSH will also include related M-TIBA-enabled programs in the case study, allowing for examination of multiple DFS-enabled systems and cross-program learning. These include an *Enrollment in UHC* program enabled through the M-TIBA platform in several of the Government of Kenya's UHC pilot counties is supported by PharmAccess in close collaboration with the county government, Ministry of Health, and CarePay, through which over 2 million individuals have already been enrolled. The M-TIBA platform also allows for the distribution of digital loans to private clinics via the Digital Cash Advance of the Medical Credit Fund, which can be examined to look at how digital financial credit is used by the private health sector. These additional programs allow for review of multiple ways DFS can contribute to financial protection and systems strengthening in a country as it moves towards UHC.

Schedule and Deliverables

A timeline of key project activities and responsible entities is shared in Table 1 below. Intermediate deliverables include the finalized project workplan (Month 1), data collection trip reports (Month 4), draft report (Month 5), culminating in the primary deliverable of the final report at the end of project month 6.

Table 1. Activities by responsible entity and project month

Activity	Responsible	Timeline
Regular consultation with Digital Square, USAID, and global landscaping implementer	MSH	Throughout project
Desk review of DFS for health literature	MSH	Month 1
Development and finalization with Digital Square and USAID of the project workplan and protocol	MSH with PharmAccess	Month 1
IRB submission and approval, if required	MSH	Month 1-2
Engagement with country stakeholders on buy-in, data sharing, and field trip planning	MSH with PharmAccess	Month 1-2
Initial review of available data and resources of country case studies according to approach described above	MSH	Month 2-3
Development and finalization of data collection instruments	MSH	Month 2
Kenya trip for key informant interviews, focus group discussions, and additional data collection	MSH, introductions facilitated by PharmAccess	Month 3

Rwanda trip for key informant interviews, focus group discussions, and additional data collection	MSH	Month 4
Analysis of quantitative and qualitative data, report drafted and delivered	MSH with PharmAccess	Months 4-5
Review and feedback provided	Digital Square/USAID	Month 5
Report finalized and delivered	MSH	Month 6

High-level Budget Summary

MSH with PharmAccess proposes to deliver the technical activities described herein for a total budget of $168,980.

Risk Mitigation

The hesitancy of private sector and traditional donor implementing partner organizations to share details on the extent of challenges faced or problems encountered in implementing a system can be an obstacle. The tendency would be to focus primarily on positive attributes. One way to mitigate some of this risk can be to offer the opportunity for organizations or individuals to speak regarding challenges or recommendations without attribution to their organizations, and to present data as aggregated responses by themes.

Engagement with a large number of individuals and organizations to gather the necessary information to complete the work within the proposed timeline of six months could prove challenging. MSH is committed to implementing efficiently and has country offices in the locations that have been proposed, which can also facilitate rapid organization of field activities. Partnership with PharmAccess is expected to facilitate rapid engagement in Kenya, and MSH's experience with the Rwanda CBHI DFS program will enable quick collaboration.

MSH looks forward to the opportunity to collaborate and co-create with Digital Square and USAID toward realization of the important goals of this project.