



ANNUAL  
REPORT  
FY 2014

**MOBILE SOLUTIONS  
TECHNICAL ASSISTANCE  
*and* RESEARCH (mSTAR)**

**QUARTERS 1-4** October 1, 2013 – September 30, 2014

# **MOBILE SOLUTIONS TECHNICAL ASSISTANCE *and* RESEARCH (mSTAR)**



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## **QUARTERS 1-4**

*(October 1, 2013 –  
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## ACRONYMS

<b>AIN</b>	Aquaculture for Income and Nutrition
<b>API</b>	Application Programming Interface
<b>CA</b>	Community Agent
<b>DFS</b>	Digital Financial Services
<b>CHASS</b>	Clinical HIV/AIDS Systems Strengthening
<b>EPI</b>	Expanded Program on Immunization
<b>FtF</b>	Feed the Future
<b>FY</b>	Fiscal Year
<b>GAVI</b>	Group to Advance Vaccinations and Immunizations
<b>GSK</b>	GlaxoSmithKline
<b>GSMA</b>	Groupe Speciale Mobile Association
<b>ICT4D</b>	Information and Communication Technologies for Development
<b>INS</b>	Instituto Nacional De Saúde (National Institute of Health)
<b>JPAL</b>	Abdul Latif Jameel Poverty Action Lab
<b>KM</b>	Knowledge Management
<b>M&amp;E</b>	Monitoring and Evaluation
<b>M4D</b>	Mobiles for Development
<b>MAUS</b>	Mobile Access and Usage Survey
<b>MCHIP</b>	Maternal and Child Health Integrated Program
<b>MDC</b>	Mobile Data Collection
<b>MFS</b>	Mobile Financial Services
<b>MNO</b>	Mobile Network Operator
<b>CSR</b>	Corporate Social Responsibility
<b>mSTAR</b>	Mobile Solutions, Technical Assistance, and Research
<b>NGO</b>	Non-Governmental Organization
<b>OTC</b>	Over-the-counter
<b>RDMA</b>	Regional Development Mission for Asia
<b>RFA</b>	Request for Applications
<b>SMS</b>	Short Message Service
<b>UCT</b>	University of Cape Town
<b>USAID</b>	United States Agency for International Development



## EXECUTIVE SUMMARY

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Over the past 10 years, there has been an emergence of the use of digital technology to increase financial inclusion, data-driven decision making, and access to critical livelihoods information in developing countries. Within this context, the Mobile Solutions Technical Assistance and Research Program (mSTAR) was created to be a broad, flexible, and responsive technical assistance and action learning program that will foster the adoption and scale-up of digital finance, real-time data for decision making, and digital inclusion in developing countries.

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Ultimately, mSTAR seeks to increase access and use of digital technologies by the poor, civil society, local government institutions and private sector stakeholders to facilitate development outcomes. mSTAR began by working in support of USAID's Digital Development team at USAID, a part of the new Global Development Lab.

Today mSTAR supports the Global Development Lab's work, engaging closely with the Digital Development Team but also across the agency, in three areas:

 **Digital Finance:** Inclusive electronic payments such as mobile money have the potential to lift millions out of poverty, contribute towards achieving Feed the Future objectives, and improve governance and public financial management by reducing costs and increasing transparency. mSTAR will support development of robust digital finance ecosystems in targeted countries through increased use of the existing systems and technical assistance to strengthen the supply, demand, and regulatory and policy frameworks.

 **Real-time Data for Decision Making:** Many development implementers, host country governments, and local organizations are using outdated paper-based data collection systems. Mobile data enables a more adaptive, iterative approach to program delivery. mSTAR aims to improve decision making for development problems and citizen empowerment through contributing to increased use of mobile technologies for data collection and dissemination in the development community.

 **Digital Inclusion:** Basic issues such as lack of access to a power grid, and high costs of SIM cards hold back uptake of mobile technologies. In order to maximize the potential of the mobile channel for development, mSTAR will support the broader goals of USAID in increasing connectivity of mobile networks, affordability for lower-income populations, and locally relevant content.

To advance development outcomes in these areas, mSTAR implements the following activities:

- » Provision of technical assistance and training to increase effectiveness of mobile ecosystems and actors to serve low-income populations; and increase impact of USAID projects through use of digital tools.
- » Generation of evidence around efficiency, transparency, and safety gains through digital tools, as well as the business case for investing in bringing digital solutions to low-income, underserved populations.
- » Management of platforms for knowledge sharing and dialogue to increase understanding of the development community and mobile ecosystem actors on use of digital tools for strengthening development outcomes

In its second year, mSTAR produced approximately forty technical documents and facilitated twenty-four knowledge sharing events. mSTAR maintains an ongoing network of organizations

with exceptional qualifications in the three work streams and has engaged with 110 organizations on implementation or knowledge-sharing. Additionally, mSTAR continued to deliver on Mission driven activities in Bangladesh and Mozambique while also growing the portfolio to expand geographically in FY 2015.

In this report, mSTAR will shine a spotlight on some exciting initiatives that took place throughout the year, including:

- » how mSTAR is contributing to the uptake of mobile money in Bangladesh;
- » how forming public-private partnerships is helping to overcome health challenges in Mozambique;
- » how an M4D forum hosted by RDMA opened dialogue across the region and allowed for learning from initiatives; and
- » tools that mSTAR has developed that are contributing to increased efficiency in ICT4D globally.

## BANGLADESH THE UPTAKE OF mMONEY AS A RESULT OF mSTAR

The USAID/Bangladesh mSTAR activity supports the acceleration and adoption of mobile money and e-payments within the Mission's programs, with a specific emphasis on health and agriculture. Additionally, mSTAR works with USAID/Bangladesh, implementing partners, and other relevant parties to define and capture mobile money metrics consistent with USAID's country-level results framework. Local capacity building, ownership, and sustainability are key principles supported through this activity. Implementation began in September 2013.



*Increased efficiency and productivity gains across USAID/ Bangladesh's agriculture and health portfolios through usage of mobile and electronic payments*

Recognizing the need for a robust mobile money ecosystem to support the expansion of pilot projects and the uptake of mobile money in general, mSTAR/Bangladesh organized a Mobile Money Consultative Group. They held their first meeting on August 27, 2014. The goal of this important group is to provide a platform for organizations to discuss opportunities, challenges, gaps and benefits of using mobile financial services. Over 20 representatives from the donor community and development sector attended and contributed to the constructive dialogue. Discussions centered on regulatory issues and the growth of the MFS industry in Bangladesh, MFS product innovation, and creating demand for

mobile financial services. Participants also shared some possible solutions to mitigate the existing challenges and strengthen the MFS industry to better meet the needs of the development sector.

The two pilot projects referenced here have helped to aggregate demand for mobile money services among USAID implementing partners, thus demonstrating the business case to service providers for including these underserved populations. Further, the strong relationships that the mSTAR team has developed with MFS providers and the USAID implementing partners has been instrumental in linking providers with a new customer base and business opportunity.



### ***Why Bangladesh***

Within Bangladesh, mobile networks already cover 99% of the country, mobile penetration has reached almost 90% in urban areas, and there is continued growth is coming from semi-urban and rural areas. Recent years have seen rapid expansion in the mobile money market with eight-fold growth in mobile money accounts and agents from 2012 to 2013—although the number of mobile money users still represents only a fraction of all adults (at less than 5%). Given Bangladesh’s high population density (150 million), mobile coverage, demographics, low levels of financial inclusion, and permissive regulatory environment, it is in many ways an ideal market for the scaling of mobile financial services to the underserved.

### ***mSTAR is currently supporting two partners in their transition to e-Payments – Dnet and WorldFish.***

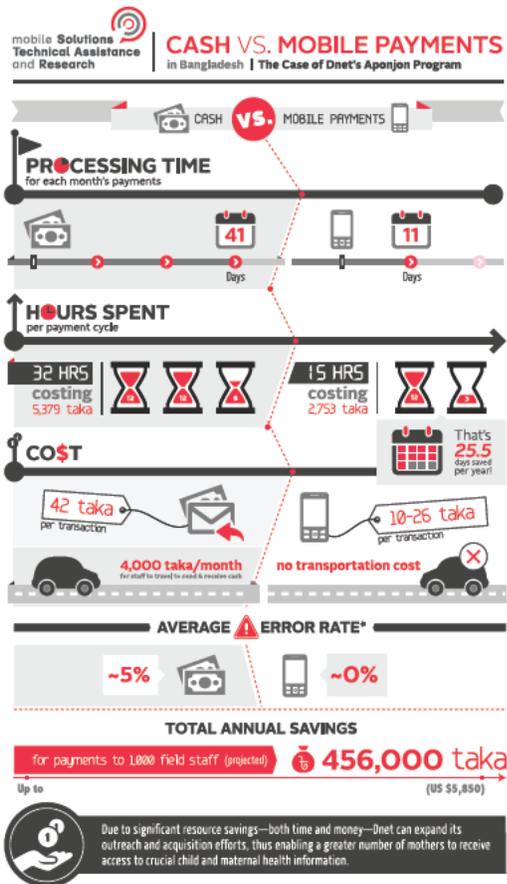
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The USAID-funded Aquaculture for Income and Nutrition (AIN) project is a five year transformative investment in aquaculture focused on 20 southern districts in the Barisal, Khulna and Dhaka divisions of Bangladesh, and was launched in October 2011. Through a small mSTAR grant, **WorldFish** is piloting the use of mobile financial services in Khulna and Faridpur. This pilot is testing whether mobile financial services can provide populations living in remote areas of Bangladesh with access to a new way of receiving money instantly. Previously, WorldFish did not use mobile financial services to make payments because there was a lack of understanding and training around how to cash out, disburse and check balances. The organization, therefore, found bank transfers to be a more viable option to transfer money to staff. They have opted to use a partial over-the-counter (OTC) approach, whereby a bKash agent sends funds to its target recipients’ bKash accounts.

Prior to mSTAR support, the WorldFish finance office provided a cash advance to Technical Specialists, who then distributed cash to Field Supervisors, who then passed the cash to Extension Facilitators, who finally disbursed the cash to farmers. The total time to send cash from the Khulna office to Extension Facilitators took 12-16 days, on average. Using mobile financial services, Extension Facilitators receive a one month advance from the Khulna office in a matter of hours, while at the same time eliminating security risks and the financial and administrative burdens. There are plans to extend the pilot to all 20 districts where AIN implements its activities.

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Similar efficiencies have been spotted in **Dnet’s** programming. Aponjon is a USAID supported mobile-based health information system for expecting and new mothers for receiving



information from the very beginning of their pregnancy until their child turns one. Aponjon provides health information to expecting mothers and new mothers as well as their gatekeepers (e.g. husbands, mothers and mothers-in-law) who eventually play important roles in decision making. Since its launch, Aponjon has reached more than 250,000 subscribers across 40 districts in the country through a field force of 3,000 staff provided by its outreach partners. Aponjon plans to cover all of Bangladesh's 64 districts through its outreach partners by 2015.

The program trains health workers of partner organization to identify, motivate, and register expecting and new mothers for Aponjon's service. These health workers are known as Community Agents (CAs).

Dnet makes payments to the field for a number of different expenses: it pays CAs an incentive for each subscriber they acquire, as well as payments for yard meetings, data entry costs, Aponjon Fair costs and training costs for the CAs and field focal points.

Initially, Dnet disbursed cash payments to CAs and field focal points using money orders from the post office, which posed multiple challenges, such as:

- » The length of time to process orders for the beneficiaries to receive the cash;
- » The distance between beneficiaries' residence to the nearest post office, which is often far; and
- » The lack of security provided to beneficiaries who have to carry cash from the post office to their homes.

To overcome these challenges, Dnet decided to transition from using cash to mobile financial services (MFS) with support from mSTAR. The pilot produced some impressive results, including reducing processing time by 30 days, cutting the hours spent per payment cycle in half, and eliminating error (more benefits are depicted in the infographic on the left).

Mobile payments not only save time and money, but they also ensure transparency. Previously, Aponjon was unable to track whether beneficiaries received their payments in full or if their supervisor/ organization kept a portion. Using mobile financial services guarantees that the payments are received in full by the intended individuals, as every beneficiary has an individual mobile banking account to which the payments are directly sent.

## SPOTLIGHT ON MOZAMBIQUE PARTNERSHIP: mVACCINATION STUDY

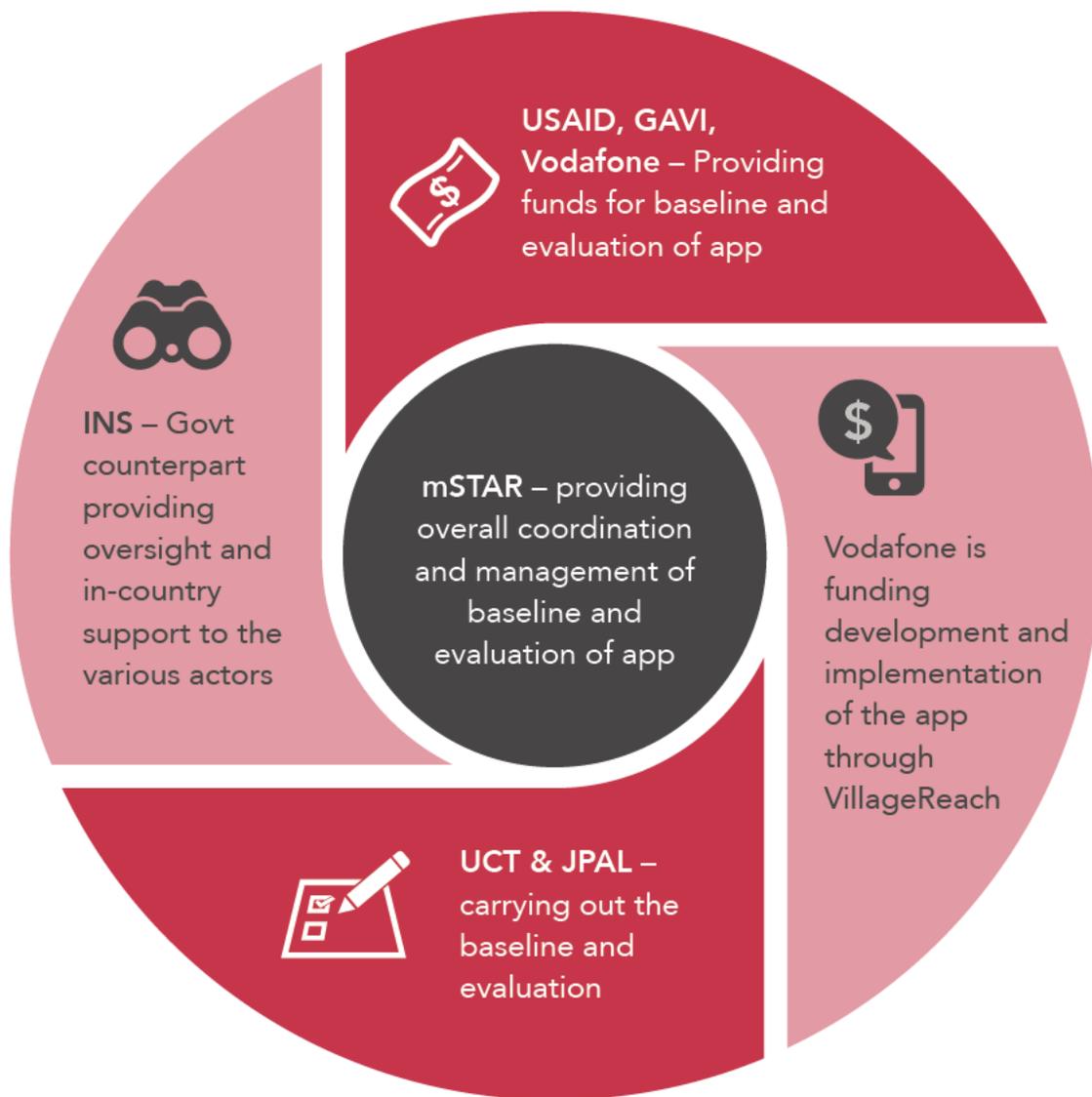
mSTAR is facilitating partnerships with USAID, GAVI, Vodafone, and the University of Cape Town (UCT) to conduct an evaluation of the mVacciNation application in Mozambique. The goal of this study is to identify whether use of mobile health applications has an impact on increasing vaccination coverage by targeting communications and logistics issues in the vaccine supply chain.

The objectives of the proposed study are to 1) rigorously measure the impact of the mVacciNation application on vaccination coverage rates and vaccine stock levels, 2) rigorously test different SMS and voice call reminders as a part of the application, 3) calculate the cost-effectiveness of the application, and 4) assess the impact of the application on health system processes. The study will be conducted in Nampula Province. mSTAR, with funding from USAID, Vodafone, and GAVI, is working with UCT, JPAL, and the Instituto Nacional de Saúde (INS) to implement the baseline, which is expected to launch by February 2015. The three donors of this study illustrate how private sector interests can contribute to social impact. A fourth funder is expected to join the effort in early 2015. FHI 360 and Vodafone have collaborated to bring Glaxo Smith Kline (GSK) to the table to help bridge budget shortfalls resulting from unforeseen costs of collaborating with the local government.



The mVaccination mobile application is being used to replace paper records at the Marere clinic. Credit: Lindsey Parr ▲

Initially, the complexities of coordinating the various local and international actors has presented challenges and contributed to delays in rolling out the baseline survey as well as budget shortfalls. The establishment of a management committee has been successful in addressing challenges with the government of Mozambique, increased communications across the funders, and established a productive relationship with the INS and other government actors.



Partnership Model – Public Private Partnership to assess impact of mobile application for health in Mozambique

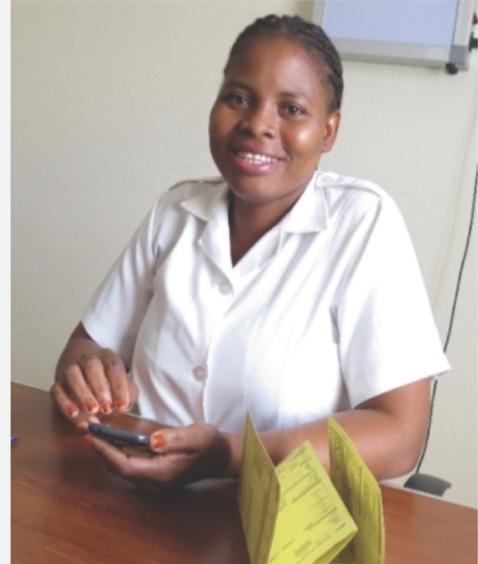


### Vodafone's mVacciNation Application

Mozambique has one of the highest child mortality rates in the world, with a substantial portion of these deaths stemming from vaccine-preventable diseases. A key issue is the drop-off between the first and subsequent doses of a vaccine. There are a range of factors that could explain this drop-off including supply-side issues such as vaccine stock outs caused by poor supply chain management. Alternatively, demand-side issues such as incomplete information, prohibitive costs, cultural beliefs, or other behavioral impediments could be to blame. In an attempt to address these issues, Vodafone and partners have introduced the mVacciNation application. The application seeks to overcome key obstacles around data capture, patient compliance, and supply chain failures using a readily-available technology: mobile phones.

At a high level, the program seeks to positively impact the efficiency of the in-country health system to increase access to and quality of the Expanded Program on Immunization (EPI), and thereby increase immunization coverage of children under one year of age. If it proves cost-effective, this application may be scaled up throughout Mozambique and thus reduce mortality and morbidity from vaccine-preventable diseases. This study aims to provide policymakers with the scientific evidence they need to make inform these decisions.

*Helena Marcos Lopes uses the mVaccination application at the Marere clinic to register children for vaccinations. Credit: Lindsey Parr* ▶



## SPOTLIGHT ON MOBILES FOR DEVELOPMENT IN ASIA FORUM

In January 2014, close to 100 industry leaders, local technology firms, U.S. Agency for International Development (USAID) implementing partners, academics and donors gathered to discuss the leading mobile technology innovations in Asia, and how development practitioners leverage them for greater impact at the Mobile Solutions Forum in Bangkok.

This first-of-its-kind event was hosted by USAID's Regional Development Mission in Asia (RDMA), with significant strategic and technical support from the mSTAR program, led by FHI 360 in partnership with Open Revolution. Dr. Michael Yates, director of USAID RDMA, and Priya Jaisinghani, director of USAID's Digital Development team, provided opening remarks. Highlights included networking and an awards ceremony that announced the winners of a regional contest to identify creative social development mobile applications in Southeast Asia.



The forum sparked lively debate on several different topics, including partnerships, privacy and information management, cross-sectoral coordination, regional applications and local language, digital literacy, content development, and sustainability and business models.

- » In thinking through partnerships, sustainability, finding the right partners, and involving the host government were the three main issues raised.
- » Key issues raised regarding privacy and information management were around ownership of data, prior informed consent, developing standards/certifications for privacy and information management, and if there is a need for sector-based standards regarding data.

### *Why Mobile?*

Participants agreed why today is a ripe moment to capitalize on M4D:

“There is high usage and penetration rates in youth populations that are already utilizing mobiles for other purposes; the costs of devices and connectivity are declining; and there is overall enthusiasm for and interest in mobile solutions among international development players.”

- » Regarding cross-sectoral coordination, participants agreed that there is a need to build the capacity of third party service providers so that they have technical ability to carry the work forward after donor assistance ends; cross-sectoral replicability should be rewarded; learning should be incentivized so that cross-sectoral coordination occurs naturally; and finally, the industry needs to consider mobile platforms as a methodology or approach that can be used across sectors, rather than as sectoral-specific initiatives.
- » Digital literacy discussions raised the issue of how traditional illiteracy feeds into digital illiteracy; and how there needs to be more investment in technical literacy tools and resources, which are currently quite limited.
- » Questions were raised around sustainability and business models that will allow M4D players to address private sector concerns, despite how disconnected NGO and MNO interests can sometimes be from each other.
- » Discussions around content development included the touched on aggregation and localization across sectors, cultures, and regions; how to know what to choose and trust when validating content; the inherent difficulty in controlling and updating dynamic content when a project ends; the importance of understanding user wants and needs; and how to tailor content by backtracking from the ultimate message that will be communicated.
- » The challenges in developing regional applications and utilizing local languages that were noted included voice and video compliment the use of local scripts; that availability and cost are often barriers to downloading less common fonts; and that integration of Unicode fonts in operating systems would improve the ability to represent different local scripts.

The forum was successful in bringing together the right players and change makers to discuss opportunities that are currently being leveraged, how to overcome existing challenges, and how to seize opportunities that haven't yet been tapped.

### M4D Opportunities Currently Being Leveraged



Disseminating real time information to targeted populations

Reaching remote or new communities

Increasing transparency and therefore decreasing corruption

Creating, connecting and/or strengthening online networks

Streamlining M&E and creating more robust analytics

Enhancing sensitivity around privacy and security of personal information

Engaging with already-existing APIs

## Future Opportunities



- Creating standards/guidelines for app developers
- Driving growth through mobile financial services
- Utilizing existing subscriber lists to promote government and NGO services
- Leveraging MNOs' CSR budgets
- Integrating remote sensing data (and utilizing geospatial data more broadly)

## Current Challenges in Using M4D



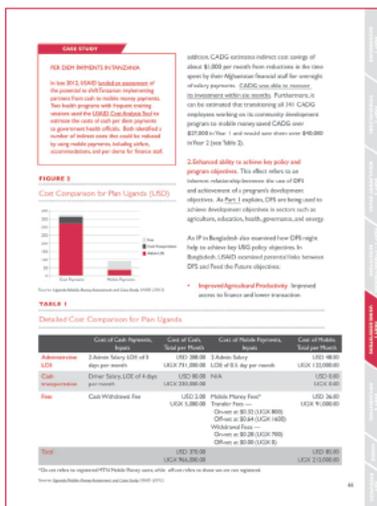
- Alignment and coordination of multiple, and sometimes conflicting, stakeholder priorities, interests, agendas, and project timeframes
- Affordability and penetration rates (device, transaction cost, mobile data)
- Network infrastructure and bandwidth, especially in rural areas
- Content localization
- Literacy challenges (digital, technical and language)
- Standardization of data collection, and subsequent data sharing and maintenance/updating
- Lack of awareness of the full potential of M4D services and/or of specific M4D apps
- Poor enabling environment due to restrictive and changing legislation, regulatory, and policy frameworks
- Financial sustainability due to donor-driven rather than market/demand-driven;
- Cultural and behavioral barriers to access/uptake of services
- How to manage or build partnerships with MNOs
- How to reach scale
- Traditional procurement processes and language

The forum was followed by a four-day training on mobile solutions for development with USAID staff. At this training, mSTAR introduced an interactive handbook on Integrating Mobiles into Development Projects (more can be read about this under the Spotlight on mSTAR's Toolbox).

Opening the dialogue across the region allowed for sharing of experiences and learning from initiatives that have worked, others that have struggled, and ideas for expansion. As this was the first time that RDMA hosted an M4D event, it served to bolster their reputation in this space. The forum positioned USAID as a thought leader in the industry and forged key strategic relationships with industry stakeholders and change makers. Due to the success of the one day event, and the traction that it gained, it will be repeated in 2015 as an expanded 2-day event.

# SPOTLIGHT ON mSTAR'S TOOLBOX

Throughout the annual reporting period, mSTAR developed or contributed to nearly fifty learning products – including blogs, infosheets, and country snapshots. What is most notable is the work that mSTAR has put into stocking a toolbox with practical, work-flow focused products that address the core needs of USAID Missions and make it easier for Missions to incorporate mobile solutions into their programs.



Diagrams, decision making charts, case studies, and key considerations are interspersed throughout the handbook making it digestible and easy to follow.

## Digital Finance for Development: A Handbook for USAID Staff (<https://www.microlinks.org/library/digital-finance-development-handbook-usaid-staff>)

This handbook was designed to enable USAID personnel to maximize the Agency's use of and contribution to the growth of digital financial services in emerging markets around the world. The handbook enables users to identify, assess, and act upon opportunities to use inclusive digital financial services (like mobile money) in USAID programs. The handbook is designed so that you don't need to read all of it to get benefit from it. Each section begins by identifying the target audience and objectives so users may easily find the content most relevant to them.

The handbook is broken into parts for ease of use:

1. Background: Inclusive Digital Financial Services
2. Stakeholders: Inclusive Digital Financial Service Ecosystems
3. Regulatory Issues: Affecting the Growth of Inclusive Digital Financial Service Ecosystems
4. Strengthening Ecosystems: How USAID Can Strengthen Inclusive Digital Financial Service Ecosystems
5. Using Ecosystems: How USAID Can Use Inclusive Digital Financial Services Across Its Programming
6. Implementing: How to Assess Opportunities and Design Solicitation



## Integrating Mobiles into Development Projects Handbook (<https://www.microlinks.org/library/integrating-mobiles-development-projects>)

This handbook, funded by USAID/RDMA, is a comprehensive resource to incorporate digital technology across development activities and sectors. Designed as an interactive PDF, the handbook does not need to be read linearly -- readers may skip around to the most interesting or relevant sections, tools, and adaptable worksheets. Another benefit of its design is that it can be used by new users and experienced professionals alike. The handbook is divided into two sections: the first section is meant to be an in-depth guide to mobiles; the second section provides practical tips and information related to integrating mobiles into a project in practice, including a six-step approach to project design.

The handbook has been widely shared since its August 2014 publication. At the end of this reporting period, a total of 468 downloads had been completed through web forms set up by mSTAR; the handbook may also be accessed directly via USAID and those additional downloads are not able to be tracked by the mSTAR team.



### Coming Soon!

Stay tuned for the upcoming release of the self-paced Mobile Data Solutions eCourse via Tech Change. The content can be accessed here:

<https://s3.amazonaws.com/techchange-articulate/mData/mData+-+Storyline+output/story.html>

The course includes four modules:

1. Introduction to Mobile Data Solutions
2. Project Design
3. Implementation
4. Data Analysis, Visualization, and Sharing

Course content was developed for a live online course in May 2014, and is now being released to a wider audience in this self-paced format.



The toolkit is organized around three major sections:

1. What mobile data collection is and what general benefits it offers;
2. Evaluating the suitability of mobile data collection tools for a given project;
3. How to successfully build the capabilities needed for transitioning to mobile data collection.

It also includes such useful tools as a decision matrix for platform selection, key features of mobile data collection devices, example scopes of work, and key questions to ask specialized consultants or firms.

### **mAccess Diagnostic**

Maximizing the potential of mobile technology to accelerate development outcomes presupposes a certain level of access to, and effective use of, mobile devices and services. While mobile technology enjoys unprecedented global reach, access to it is not a forgone conclusion: unique mobile subscriber rates, for instance, stand at only 39% in the developing world and 300 million fewer women than men worldwide own mobile phones.

Access must mean more than an available mobile connection. It must also mean an individual's ability to afford the services provided, value them, and have the ability to use them. Only when these "building blocks" come together, will access to mobile technology maximize its intrinsic social value and become the foundation upon which

transformational mobile products and services can be built. As USAID increasingly looks to harness mobile technologies in its programming, it is critical that this broader mobile access context be understood and accounted for in strategic planning and programmatic decision-making. Organizing and analyzing the complex and interconnected components of mobile access in order to have such an understanding requires a clear framework and insights into, among other things, consumer behavior, market forces, and the policy and regulatory environment.

To that end, mSTAR is working with USAID to develop a diagnostic tool that can be used by USAID Missions globally to assess: 1) how to invest in and strengthen the "building blocks" of a robust mobile ecosystem where such fundamentals are not in place and 2) how to integrate mobile technology into programs as a way to strengthen or accelerate development outcomes.

The mAccess Diagnostic is currently being developed as an online database allowing for easy user access and can include basic regressions and correlations. The aim is for this diagnostic tool to be comprehensive enough to capture detailed mobile access data, but sufficiently streamlined that USAID Mission staff would be able to use it on their own or contract out the work.

The tool is undergoing testing now with final tweaks and revisions expected to take place in January and February 2015 and a final release in March or April 2015.



## Paper to Mobile Data Collection: A Manual

Advances in information technology have opened exciting new avenues for how research is conducted and data collected, with huge implications to M&E frameworks and program design. One of these advances is the ability to use Mobile Data Collection (MDC), which uses mobile technology to replace traditional pen and paper data gathering, and is being increasingly adopted globally. Used correctly, these technologies equip the information gatherer with a powerful tool that can be used to improve data collection speed, reduce cost, and increase quality. For institutions engaged in longer term projects or programs, the ability to collect data faster, potentially in real time, allows for increased responsiveness to changes on the ground. They also allow survey supervisors and the enumerators to keep better track of the gathered data, which in turn enhances performance, enables the identification of potential problems, and reveals interesting lines of inquiry while they can still be addressed, as well as improves accountability of the various actors.

mSTAR is developing a toolkit to give USAID program and contracting staff, M&E and program staff, and researchers a better idea of what mobile data collection is, to evaluate its suitability and added value to a given project, and to give guidance in how it can best be put to use. The toolkit focuses on the most common use for MDC, which is in the implementation of quantitative surveys. However, it is good to keep in mind that MDC is well suited for collecting a number of types of quantifiable data that USAID or program staff might utilize. Examples of these would include surveying through SMS or Interactive Voice Response, or web-based surveys.

The toolkit is expected to launch in January 2015, and is directed at USAID Missions and implementing partners engaged in monitoring and evaluation, and offers the resources necessary for making an informed choice and an effective transition process from paper and pen to mobile. It will lay out the benefits of MDC use for implementing partners, as well as incorporating these methods in M&E related RFAs, when appropriate.



## Electronic Payments Systems 101 and 201 Briefers

Developed to serve a broad audience, two products have been designed to guide users through the increasingly popular shift toward digital payments. Through work and research on digital financial systems, mSTAR noticed that much of the information that exists is geared toward a highly technical audience with few resources for people who don't work exclusively in DFS. With the shift toward digital payments, it is important for USAID staff and implementing partners to understand the basic mechanics such as credit cards and their relationship to financial institutions. These documents use diagrams and infographics to clearly explain complicated interdependent relationships between merchant banks, networks, and the cardholder's bank – all crucial to a functional ecosystem for digital payments.

These two learning products were in development at the end of the reporting period and have been designed to be released in conjunction with web-based and in-person convening's for the USAID and the larger international development community.



**Electronic Payment Systems 101** provides an overview of electronic payments, card network fundamentals, payment participants, and card network economies. Access it here: <https://www.microlinks.org/library/electronic-payment-systems-101>



**Electronic Payment Systems 201** delves more deeply into mobile money, focusing on its impact on financial inclusion, payment systems, and interoperability. Access it here: <https://www.microlinks.org/library/electronic-payment-systems-201>

## ADDITIONAL mSTAR PRODUCTS

While the mSTAR team has been busy developing tools for toolkits and delivering on mission interests, nearly fifty additional products have been produced throughout the year. The list below includes both documents produced for USAID or country missions, communications pieces, and learning products produced through mSTAR for both internal (mSTAR and USAID) and external (distributed to partners, posted on Microlinks, shared with wider community) distribution. Further, mSTAR has hosted or helped organize more than 25 separate events throughout the year such as brownbags, roundtables, and Tech Tuesdays.

Distribution	USAID Digital Development Documents	Completion Date
Internal	Monitoring and Evaluation Terminology for Real Time Data Team	September 2014
Internal	Monitoring and Evaluation Terminology for Digital Finance Presentation	September 2014
Internal	M&E: Theory of Change Presentation	August 2014
Internal	RDMA Course Report	March 2014
Internal	KM Strategy	December 2013
Internal	mAccess Strategy Development (Dalberg)	October – November 2013

Distribution	USAID Country Mission Documents	Completion Date
External	Mobile Money Case Study: A Comparison between Cash and Mobile Payments in WorldFish's Aquaculture for Income and Nutrition (AIN) Project	September 2014
External	Essentials for Incorporating Mobile Payments into Projects & Programs: Workshop Report	September 2014
External	Mobile Money Case Study: Dnet's Aponjon Program	August 2014
External	Training Manual for Using Mobile Money in Bangladesh	August 2014

Distribution	USAID Digital Development Documents	Completion Date
External	mSTAR/Bangladesh: Technical Assistance to DAM Report	August 2014
External	Mobile Money Infosheet: MYCash	August 2014
External	Mobile Money Snapshot: TB Care II	July 2014
External	Exploring Mobile Money Payments in Agricultural Projects & Programs in Bangladesh: Workshop Report	July 2014
External	Smart Usage of Mobile Money in Projects & Programs in Bangladesh: Workshop Report	July 2014
External	Mobile Money Snapshot: Save the Children	July 2014
External	Mobile Money Snapshot: Chars Livelihoods Program	July 2014
External	Baseline Survey on the Status of Mobile Money Usage by USAID/Bangladesh Implementing Partners	July 2014
External	Mobile Money Infosheet: bKash	June 2014
External	Mobile Money Snapshot: PROSHAR Cash for Work Program	June 2014
External	mSTAR/Bangladesh: Technical Assistance to the WorldFish Center Report	June 2014
External	Mobile Money Infosheet: mCash	April 2014
External	Exploring Mobile Money Payments in Bangladesh: Workshop Report	April 2014
External	Mobile Money Snapshot: English In Action	February 2014
External	Mobile Money Snapshot: HelpAge International	February 2014
External	Mobile Money Infosheet: DBBL Mobile Banking	February 2014
External	Mobile Money Infosheet: bKash	February 2014
Internal	mAgri Report – Mozambique	TBD

Distribution	Learning Products	Completion Date
External	ICT4D Principles 2-Pager on Principle #1 - Design for the User	September 2014
External	Integrating Mobiles into Development Projects Handbook	August 2014
External	Local Content Ecosystem Roundtable: Themes & Takeaways	June 2014
External	ICT4D Principles 2-Pager	May 2014
Internal	Digital Finance Handbook	May 2014
External	e-Payments Toolkit	May 2014
External	Workshop on 'mSTAR Introduction to Mobile Money and Grants'	November 2013
External	Mobiles! blog & video channel	November 2013

Distribution	Communications Products	Completion Date
External	mSTAR Quarterly Newsletter - Sept	September 2014
External	RDMA Blog on Nethope website	August 2014
External	mSTAR Quarterly Newsletter	July 2014
External	mSTAR Two Pager	April 2014
External	mSTAR Bangladesh Two Pager	March 2014
External	mSTAR Digest I January 2014	January 2014
External	mSTAR Digest I December 2013	December 2013
External	mSTAR Digest I November 2013	November 2013

External Event (International)	# People	Date
RDMA Workshop – Bangkok	21	January 2014
RDMA Forum – Bangkok	98	January 2014

<b>External Event (DC Organized)</b>	<b># People</b>	<b>Date</b>
Tech Salon	30	October 2013
Local Content Roundtable		March 2014
USAID/Uganda DFS Pilot Presentation	20	March 2014
Lessons from the Field in Mobile Money	20	April 2014
USAID Mission Director's Meeting	25	May 2014
ICT4D Principles Working group	90	June 2014
ICT4D Kick-off Events in Seattle, New York, and DC	65	June and July 2014
ICT4D Principles: Principle 1	45	July 2014
ICT4D Principles: Principle 2	20	October 2014
Digital Technology, Climate Change & Health Brownbag	5	June 2014
SEEP Panel	130	September 2014
Tech Tuesday: Javier Sola	16	March 2014
Tech Tuesday: Sonia Jorge	12	April 2014
Tech Tuesday: Eric Couper	9	June 2014
Tech Tuesday: NetHope	13	August 2014
Tech Tuesday: Good World Solutions	10	September 2014

<b>External Event (Bangladesh)</b>	<b># People</b>	<b>Date</b>
mSTAR Introduction to Mobile Money and Grants	26	November 2013
Exploring Mobile Money Payments in Bangladesh	27	March 2014
Smart Usage of Mobile Money in Projects & Programs in Bangladesh	19	June 2014
Exploring Mobile Money Payments in Agricultural Projects & Programs in Bangladesh	15	June 2014
Mobile Money Consultative Group Meeting	21	August 2014
Essentials for Incorporating Mobile Payments into Projects & Programs	22	September 2014



## LOOKING FORWARD

In the second year of implementation, mSTAR has been successful in delivering on work in several different work streams. While ensuring to continue the focus on high quality and effective outputs, mSTAR also continues to look forward, at FY 2015. There are several initiatives that were at various stages of development at the end of the reporting period and are worth a mention in this report.

The Results Framework (in Annex 2) lays out the development objectives, intermediate results, and activities that mSTAR anticipates delivering. While it is expected that this results framework will evolve over the life of the project due to the demand-driven nature mSTAR and fast-changing market dynamics within which the project works, there are some opportunities that have been identified for FY2015.

- ▶ **DEVELOPMENT OBJECTIVE 1:** Increased use of digital tools by excluded and underserved communities in target countries
  - » **INTERMEDIATE RESULT 1:** Increased impact of USAID projects through use of digital tools;
  - » **INTERMEDIATE RESULT 2:** Increased effectiveness of mobile ecosystems and actors to serve low-income populations;
  - » **INTERMEDIATE RESULT 3:** Increased available evidence base around efficiency, transparency, and safety gains through digital tools

### **Integrating DFS into FTF Frameworks for Ghana, Tanzania, Uganda, and Haiti**

mSTAR will identify how digital financial services can support Feed the Future (FTF) programming globally, by focusing initially on four countries: Haiti, Ghana, Uganda and Tanzania. These four markets represent the spectrum of digital finance acceptance and functionality ranging from low levels of usage in Haiti to broad usage and acceptance in Tanzania.

### **Burma Strategy: DFS for Agriculture**

mSTAR will support the development of digital financial services in Burma by determining mobile payment potential within agricultural value chains. Activities will include an assessment of specific value chains' payments systems and the potential for mobile enabled payment and financing options. mSTAR will map payment flows, analyze opportunities for increased efficiency through streamlined payment technologies, and assess agriculture value chain actors' familiarity with and openness to mobile-based payment options. The end goal is to identify information gaps, inform regulatory discussions, identify scalable business opportunities, and encourage private and public investment in the digital payments sector.

### **Mali Digital Finance Stakeholder Workshop**

mSTAR will support USAID Mali in organizing and providing technical contributions to a one-day forum on mobile money, bringing together private and public sector stakeholders.

### **Bangladesh: transitioning IPs from cash to e-payments**

mSTAR will continue to assist USAID/Bangladesh to integrate mobile and e-payments into the programs and operations of implementing partners, beginning with agriculture, health and education programs.

### **Liberia e-payments**

mSTAR will support USAID's broader objective of increasing efficiency of government payments through digitizing civil service payments, resulting in increased financial inclusion for a significant portion of the Liberian population. The project will perform the following tasks to support USAID's broader goals: 1) conduct a consultation with key stakeholders and market assessment; 2) identify technical assistance gaps and draft scopes of work to address gaps, and 3) propose consultants to provide short-term technical assistance.

► **DEVELOPMENT OBJECTIVE 2:** Evidence for digital tools in development used by digital ecosystem actors in target countries

» **INTERMEDIATE RESULT 4:** Development community and mobile ecosystem actors understand use of digital tools for strengthening development outcomes

### **Mozambique: mVacciNation**

mSTAR will perform an impact study on the effectiveness of the mVacciNation application. The objectives of the study are to 1) rigorously measure the impact of Vodafone's mVacciNation application on vaccination coverage rates and vaccine stock levels, 2) rigorously test different SMS and voice call reminders as a part of the application, 3) calculate the cost-effectiveness of the application, and 4) assess the impact of the application on health system processes. The study is currently funded through USAID, Group to Advance Vaccinations and Immunizations (GAVI) and Vodafone.

### **Mozambique:**

#### **Mobile Access and Usage Survey (MAUS)**

USAID views the application of mobile technologies as foundational to its overall Mozambique Mission portfolio. Accordingly, the Mission has pooled resources across four technical units – Agriculture Trade and Business (including energy), health, education, and democracy and governance – in order to establish a baseline of mobile technology use across the country. In order to design mobile programs well (like SMS reminder programs and mobile money savings projects) more knowledge is needed to understand who owns phones, what the true cost of phones is to the user, and how people are using their phones. SMS reminders may be an inexpensive and powerful tool to deliver immunization messages to mothers, or confirm HIV results in infants, but barriers such as phone network coverage, access to electricity, message understanding and retention, and privacy all affect the success of mobile technology initiatives.

### **Mozambique:**

#### **Mobile Platform around Health Evaluations**

USAID/Mozambique will conduct two mid-term performance evaluations in early FY 2015, specifically the Maternal and Child Health Integrated Program (mCHIP) and the Clinical HIV/AIDS Systems Strengthening (CHASS) project. In both cases, the Mission is working with mSTAR to identify implementers that will use mobile data collection for quantitative and qualitative data collection and assessment. mSTAR provides a relevant and flexible mechanism for the Mozambique Mission to 1) simultaneously conduct the two proposed evaluations; 2) broaden its learning and capacity to deploy mobile-enabled data collection tools; and 3) establish a reusable programmatic approach and technology platform for future evaluations in Mozambique.

### **Bangladesh:**

#### **Mobile Money IP Demand & Supply Surveys**

The mSTAR Bangladesh team will perform demand and supply side surveys to increase understanding of how mobile financial services are currently being used by USAID target populations and to identify key focus areas that USAID can address through mSTAR to help transition its implementing partners to mobile financial services, including those at the ecosystem level. The survey aims to a) gain an understanding the demand for service, b) identify barriers to/ opportunities for development sector, and c) understand the role and impact of the regulation.

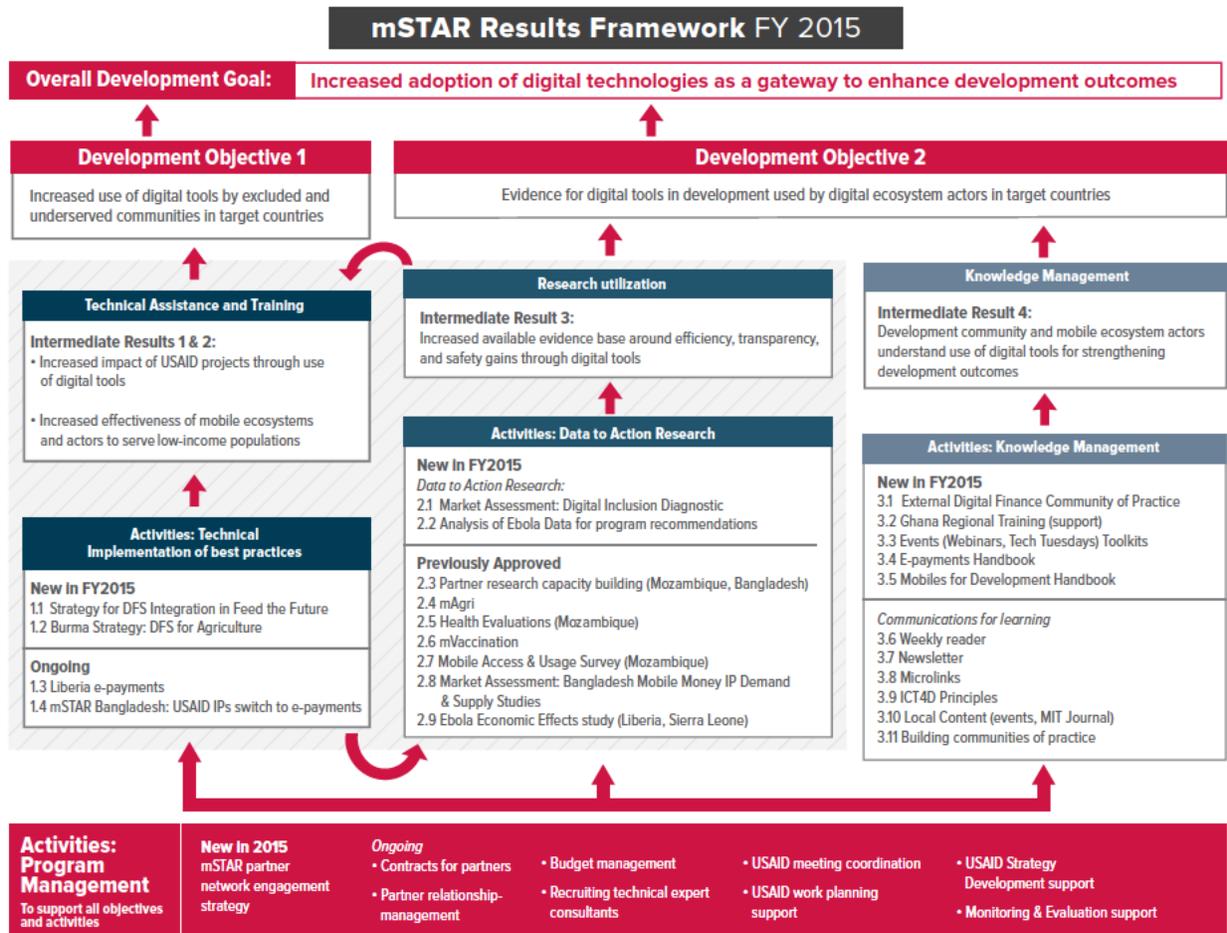
### **Ebola Economic Effects study (Liberia and Sierra Leone)**

mSTAR will be working with partner Mobile Accord Inc. to utilize their GeoPoll platform for mobile surveys to research the economic impact of Ebola in Sierra Leone and Liberia. Depending on the results and funding, the Africa bureau may expand the survey to Nigeria and Guinea in early 2015. Together with the USAID Africa bureau, mSTAR will design the survey instrument and analyze results. GeoPoll will provide a web-based, self-service dashboard that will include the basic features outlined below. The USAID Bureau for Africa will receive a set number of unique log-in detail permissions to access the secure, online dashboard.

While it's clear that mSTAR is expected to expand geographically in the next year, it is important to note that mSTAR will continue to build and manage systems for knowledge sharing and dialogue aimed at increasing understanding of the development community and mobile ecosystem actors on use of digital tools for development outcomes. This will be done through fostering communities of practice, organizing and contributing content to USAID staff trainings on the fundamentals of digital development, and producing high-quality technical products to contribute to the evidence base.



# ANNEX 2: RESULTS FRAMEWORK



ANNUAL REPORT  
FY 2014



**MOBILE SOLUTIONS  
TECHNICAL ASSISTANCE  
*and* RESEARCH (mSTAR)**

Contact Info: