Mobile money and mHealth are expanding fields, and each has grown largely independent of the other. A shared value proposition has the potential to combine the financial rationale of mobile money with the health impact of mHealth. Linkages between the two could combine the strengths and offset the limitations of each. Mobile money provides financial efficiency and sustainable business cases, while mHealth offers health impact and innovative use cases. Shared designs and business models could improve the innovation, impact and sustainability of both fields.

The crossover topic has received renewed interest lately. USAID efforts to encourage the use of e-payments by partners were discussed in a webinar on New Trends in USAID Procurement: e-Payments and Mobile Money. To consider the particular opportunities and lessons for health programs, a webinar on Demystifying Mobile Payments featured presentations by USAID, Pathfinder and the NetHope Payment Innovations team. The intersection of mobile money and mHealth was further discussed at the May meeting of the mHealth Working Group hosted by Pam Riley of Abt Associates, with presentations by mPay Connect, the USAID Mobile Solutions Team, D-Tree, Marie Stopes International and NetHope. Abt and its partner Results for Development are part of the mobile money team for USAID global Health Finance and Governance (HFG) project. HFG seeks to promote the use of mobile money to strengthen health systems through the identification of partners and use cases to drive the integration of mobile money in health, support for country strategies, and the dissemination of best practices and evidence.

Drawing on these discussions addresses a common question of what do mobile money and mHealth offer each other?

### I. What mHealth Offers Mobile Money

**Scalable Markets, Savings, Demand Creation and Rationale for Decision Makers**

A key challenge for mobile money is creating sustainable business models that scale, notes Menekse Gencer of mPay Connect. It appears that health organizations and consumers could address this challenge by providing institutional and retail customer bases at scale. Where mobile money services lack rural presence on the ground, health facilities and health agent networks can also extend reach through social franchising and voucher programs in rural areas. Costs can also be lowered, as Gencer explains how joint efforts can share operations through common agent networks that serve the same customer base. The opportunities and limitations of common agent networks are further suggested by a report by the IFC and Harvard. The report explains the relevant characteristics of airtime sales agents, which could be analogous for health agent networks. Airtime agents are “touch points” that offer physical points of presence, knowledge of customer habits or needs, and sometimes, customer trust. Health agent networks can offer the same. But airtime agents, perhaps like health agents, lack liquidity, basic business skills and easy ability to partner with
large corporations. Airtime agents and health agents may share opportunities and limitations, and these overlaps would benefit from cooperation between mobile money services and health agencies.

Health agencies, ministries and organizations can also influence the adoption of mobile money through engagement or demand creation. Framing mobile money as a form of mHealth can prompt institutional demand, given the growing use of mHealth. The IFC/Harvard report mentions that development agencies have established reputations and relationships with local governments. Governments can help reach consumers, as an mHealth Alliance report lead authored by Gercer describes how Ghana's pro-health policy and education on the benefits of insurance increased consumer demand for insurance products that employed mobile money.

Key decision makers could be better persuaded if mobile money's financial impact is translated into health impact. Mobile money has the potential to improve health, but not as a standalone effort. Health projects provide the trained staff and service infrastructures to deliver results in health areas of greatest need. Demonstrable health impact can provide ministries and agencies with a powerful justification for adopting mobile money that complements the financial rationale.

Mobile money can benefit from mHealth on the revenue and cost sides. The health sector provides an enormous market for mobile money. Integrating mobile money and mHealth can also use common networks and infrastructures to reduce costs. More than a mere market, health organizations can be valuable partners for demand creation and government buy-in. These opportunities can prompt the continued consideration of linkages between mobile money and mHealth.

**II. What Mobile Money Offers mHealth**

**Efficiencies, Accountability, Security and Access to Services**

Use of mobile money to support health outcomes can frame it as a form of mHealth. Mobile money can serve health projects at multiple levels, including human resources/administrative, provider/service, and patient levels, as laid out by Gencer. Mobile money has demonstrated advantages for HR/administration and provider/service, which fall under business-to-business (B2B) payments. A webinar with Nandini Harihareswara of USAID discussed how mobile money can provide costs savings, transparency, minimize waste, and reduce security risks to staff. The webinar also examined trends in USAID procurement that encourage the increased use of electronic payments by implementing partners. At the HR/administration level and programmatic level, Pathfinder demonstrated operational efficiencies using mobile payments to community health workers in Tanzania. This included decreased need for staff on site and for transportation, which enabled
operations to be centralized at headquarters. For the provider/service level, Judy Gold of Marie Stopes International discussed mobile money transfers to reimburse service providers for family planning service vouchers redeemable at social franchisees. 25,880 vouchers were sold between March 2011 and December 2012, with help from mobile money for faster payments to service providers, increased financial and administrative efficiency, and real-time redemption data. Steve Ollis of D-Tree also discussed the use of mHealth and mobile money to support safer birth deliveries through community-based referral systems in Tanzania. Community birth attendants use mobile banking accounts to pay drivers to transport women in labor or in emergency situations. The facility delivery rate consequently increased from approximately 30% to 72%.

The Benefits and Use Cases of Mobile Money for Patients or Populations
The benefits of mobile money for health services at the patient or target population level also present interesting possibilities. Given that mobile money is more consumer driven, how could business-to-consumer (B2C) transfers help health program beneficiaries? One example is Grundfos LIFELINK, which creates a fee-for-service model for rural communities to access safe water and pay for it using M-PESA.

The potential use cases of B2C mobile money for beneficiaries could be indicated by comparing key aspects of each. For example, the general advantages of mobile money for end users are reduced risk and the increased affordability, access and convenience of payment, per the IFC/Harvard report. Such financial inclusion could address challenges that the poor face in saving, repaying debts, and managing risks, as documented by a World Bank publication. Where access to health resources is related to financial inclusion, it could possibly be supported by mobile money. For comparison, access to medicines depends in part on the user’s ability to pay, user location, and the cost of medicines and services. These needs plausibly relate to mobile money’s affordability and convenience of payment, as well as the ability to save. In as much as mobile money could bypass some cost and time of travel, it could conceivably address known barriers where travel costs are a major component of financial costs or time costs are higher than financial costs, as could be the case for maternity services in rural Tanzania. Mobile money’s advantages for managing financial risks could address financial barriers to health, perhaps addressing patients’ “catastrophic” costs of TB care found in a systematic review by Ebonyi State University.

Accordingly, some are considering how mobile money can support insurance to cover health costs. Mobile money for insurance products can serve “base of the pyramid” markets by driving more efficient business models for insurance products, per the mHealth Alliance report. Such business models could presumably support sustainability in mHealth. The field of mHealth could benefit from sustainability, considering that the field is abundant in use cases but less rich in business cases.

Mobile money can empower entrepreneurs and enable cross-cutting solutions. These ingredients for innovation may be particularly necessary for B2C uses of mobile money that directly serve beneficiaries. This is because B2B efforts largely build on existing payment systems of health organizations. Alternatively, B2C transfers can introduce new payment
channels to beneficiaries where there were none. This opens the door for innovative designs to directly serve beneficiaries in new ways.

mHealth and mobile money differ in that one largely delivers information and the other delivers money. Money may motivate in ways that information does not. Mobile money could incentivize healthy behaviors through conditional cash transfers to beneficiaries. Gencer suggests mobile money for conditional cash transfers to motivate patients, and other evidence may support this opportunity. Conditional cash transfers “could be an effective approach to improving access to preventive services” in low and middle income countries, according to a review of interventions by the London School of Hygiene & Tropical Medicine. Mobile money could conceivably make such transfers faster and easier to track, while addressing their limitations. In particular, conditional cash transfers depend on “mechanisms to disburse payments.” Moreover, “some questions remain regarding their sustainability and cost-effectiveness” in low and middle income countries, according to another review of interventions by the London School of Hygiene and Tropical Medicine. Such need for sustainability and cost-effectiveness reiterate the need for mobile money business cases and for costing tools.

The NetHope Payment Innovations team provides tools and resource materials for making an informed decision on adoption of e-payments. For example, the Costing Utility Analysis Tool allows organizations to analyze the comparative costs associated with cash management and e-payments.

Assisting Scale Up
Mobile money may also help enable project scale up. Pathfinder transferred $1.8 million to community health workers by mobile payments over a period of 18 months, making it one of the top mobile payment customers in Tanzania. Mobile payments enabled Pathfinder to scale up to 200 trainings within three months, which helped them better over-perform their project goals. Mobile money assisted scale up by lowering the need for increased staff on site and allowed operation to be centralized at headquarters. If mobile money can accelerate scale up of mHealth projects, it can help mHealth move beyond small-scale pilots.

Mobile money offers advantages at multiple levels to both mHealth specifically and health projects overall. The accountability and security of cash transfers can reduce financial and personal risks. Mobile money has demonstrated financial and operational efficiencies for health projects, as well increased access to services. It has the potential to develop new use cases for increasing access to services and incentivizing their uptake. The combined power of mobile money and mHealth has potential to redouble the innovation and impact of mobile services.

III. Shared Challenges and Learning in Mobile Money and mHealth

Synergies between mobile money and mHealth face challenges for both mobile money services and their health partners. For mobile money services, payment distribution points may not have enough cash on hand for transfers, which could be important for
time-sensitive purchases such as transport fuel. The lack of open application programming interfaces by mobile money providers could increase setup costs. Mobile network operators may restrict coverage of mobile money services by requiring exclusivity or preferential treatment within their networks. It could also be costly to integrate with multiple mobile money providers in fragmented markets.

Health partners need to learn about fees up front and clearly define who will send and receive payment under what terms, says Steve Ollis of D-Tree. There is a separate opportunity for health partners to subsidize patient fees through new revenue sources generated by mobile money or for health workers to earn commissions by enrolling patients in mobile money systems. How would such efforts ensure that patient health is prioritized over profit, particularly for vulnerable patients with limited financial literacy? Menekse Gencer of mPay Connect states the importance of accurate ID management systems for mobile phone users across applications in order to ensure that the payer and the user of the mHealth service are the same person. An accurate ID management system must differentiate among family members who share the same phone. It is important that security, privacy and overall regulatory frameworks are adequate.

Given their shared opportunities and challenges, there is much that mHealth and mobile money can learn from each other. USAID's strategic approach to mobile money is instructive. Andrew Karlyn of USAID Mobile Solutions discussed a strategic approach that encompasses technical assistance, creation of dedicated funds, indicators to recognize missions that make commitments, and integration of language into project design and acquisition and assistance documents. In turn, mobile money can learn from prolific use cases and experience in mHealth. The hundreds of mHealth projects for supply chain management, provider training and many other areas indicate the range of opportunities and lessons for integrating mobile money. Continued dialogue between leaders in mobile money and mHealth can help bridge the way for collaborative efforts. As both fields grow, there is promise for shared innovation in mobile money and mHealth.

The three-part blog series, including reader comments, is available on the NetHope Cloud Service Portal. For further information or comment on this series, please contact:

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