Mobile Health Research Lab Update

PharmAccess's Mobile Health Research Lab in Nairobi, Kenya, researches how mobile technology can be leveraged to provide better access to quality healthcare. The Lab uses aspects borrowed from Behavioral Economics to observe how people behave (e.g. what they actually spend money on), rather than only asking for opinions via surveys. At the same time, the Lab uses aspects borrowed from modern-day “agile” software development, in which customers participate from the start in beta-testing the product, helping drive directions.

Matibabu na M-PESA
As part of the experiments, we provided 62 health facilities with a Lipa na M-PESA account. This service, increasingly popular among shops and stores, allows customers to pay directly into a company's M-PESA business account. This is an improvement over the “old” situation, in which an employee's personal M-PESA account had to be used, who then had to go to the nearest agent to cash out, and then bring the money to the facility. This service has been around for a little over one year now, and is starting to become available at higher-end healthcare facilities. Smaller facilities, however, find the registration process tedious, and are also deterred by the transaction fee which they, and not the consumer, have to pay.

The aim of this experiment is to obtain visibility on the transactions that take place, so as to get a better sense of the volume of healthcare delivery. Both in terms of the number of patients, and in terms of the height of payments made. Branded as “Matibabu na M-PESA”, Kiswahili for “(pay for) treatment with M-PESA”, we provide facilities with a cheap mobile phone and a specially prepared SIM card. This phone serves as the “till” into which payments are made.

Less leakage
In the private healthcare sector in Kenya, leakage (i.e. money disappearing) is typically estimated at 20-25%, with some people claiming it could be as high as 35%. This obviously hurts healthcare facilities financially. Replacing cash transactions by mobile, hence digital, payments drastically reduces this. While leakage can never be totally eliminated, the modest transaction fee (1%) clearly weighs up against the 50-75% reduction in leakage that facility owners think is feasible. In other words, introducing mobile payments more than pays for itself.

Lower administrative & cash-handling costs
Most healthcare facilities deposit their cash at a bank multiple times a day. To avoid the chances of robbery, ingenious schemes are being deployed of using different staff members, taking different routes, at different times of the day. All in all this is a pain-staking, labor-intensive and expensive process. On top of which, banks charge deposit fees. Having less cash to handle is a clear advantage in this respect, freeing up time to concentrate on other management duties. What's more, since there are far more M-PESA agents than bank branches, dropping off cash at the nearest M-PESA agent takes less travel time, hence is safer, and free of charge as well.

Lessons Learned
While the advantages of mobile payments over cash transactions are clear, this doesn't mean that the transition is easy.

Increased security for pregnant women
The first health facility that we enrolled into the experiment is a maternity clinic in Korogocho. This facility handles about 80 deliveries per month. Both the facility management and slum inhabitants participating in Focus Group Discussions report “security” as a major advantage. The sad reality is that pregnant women, on their way to the clinic after dark, get robbed off their cash. Now that they are able to pay digitally via their mobile phones, the money is secure. They still get stopped and harassed, sometimes showing up at the facility with cuts on their arms, but at least their money is safe, and hence they are able to pay for their delivery. This in turn has positive effects on the health of mother and child.

Increased numbers of deliveries at the clinic, due to higher ability to pay
Apart from the security aspect, there is another positive sign. Facility management report that more women are now delivering at the clinic. Simply because they can raise enough funds from their friends and relatives. The ability to pay via their mobile phones has put them in a better bargaining position. Literally, they can express urgency by saying something like “I’m at the clinic, about to deliver, I need money, real quick”. These calls take place right in front of the cashier, near the sign that says “Matibabu na M-PESA”.

Lessons learned
While the advantages of mobile payments over cash transactions are clear, this doesn't mean that the transition is easy. Both patients and healthcare providers need to be educated on the subject. Smaller facilities in particular shun away from taking on the 1% transaction fee, at first. It is only after doing the math for them that the potential savings in terms of lower security costs, less leakage, and increased ability to pay by their customers convinces them to sign up.

Lessons Learned September 2014
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Mobile Health Wallet

**Conclusion**

In the previous issue of this newsletter we reported that people at the bottom of the pyramid have no trouble using mobile technology. And this is certainly true. Anyone can press a few buttons. Especially if there is “free” money involved, as was the case with front-loaded, donor-supplied mobile health wallets. This not to say, however, that all participants necessarily understand the details of all communications.

At the end of the 6-month experiment in Mathare, we asked participants if they wanted to continue using their mobile health wallet. They were called, and sent SMS text messages, to explain that they needed to transfer KES 100 for a 2-months extension, KES 200 for a 4-months extension, or KES 300 for a 6-months extension. During those calls it was stated explicitly that “extension” meant continued use of any remaining funds. Of the 50 families participating in the experiment, 41 were reached.

The assumption was that the more money participants had left in their wallets, the more they would be willing to continue using it. But what happened? Of the 3 participants that actually did transfer the continuation fee, there was one whose wallet was completely empty. This clearly must have been a mistake or misinterpretation, and we did provide a refund, of course. One obvious explanation is that people aren’t always aware of what their balance is. This is evidenced by the fact that in the Lipa na M-PESA experiment in Korogocho, 13 transactions failed for lack of sufficient funds.

Having only 2 out of 50 families actually paying for continued use of their wallet may sound like a major disappointment. Unexpected too in a way, as 35 out of the 41 participants reached said they would continue—with 3 undecided, and another 3 who said they would not. But it proves, once more, that what people say is not necessarily what they do. Also, we have to keep reminding ourselves that this experiment was set up, first and foremost, as a technical feasibility test, addressing three questions:

1) Can we make the technology work?
2) Do patients and providers understand how to use the wallet to pay for healthcare?
3) Will they actually use it?

All these three questions were answered with a firm Yes.

What’s next

In our next newsletter we’ll talk more of our experiments with Chamas (savings groups) as a possible strategy to get patients to save for health-care themselves, and of the challenges involved in collecting medical data to know what the money was spent on.

Special thanks

Special thanks go out to our partners in the field. Without the efforts and dedication of numerous persons at Safaricom, AAR, and Dodore Kenya none of our lab efforts would be possible. Safaricom provide their telecoms, mobile money, and marketing expertise. AAR bring in their health insurance and Third-Party Administrator knowledge. And Dodore Kenya continue to surprise us with their no-nonsense, can-do attitude.

We did not start the experiment with this group to find out if participants would be able to contribute into the mobile health wallet themselves. In fact, we knew they were not, as their average income is only USD 25 per month, well below the poverty line. And indeed, lack of available cash was cited by 33 participants as the reason for not continuing. For those people, paying KES 100-300 “now” for something they may or may not use in the future is too much to ask. As stated in our previous newsletter, 18 out of 50 participants had not used the wallet at all, for the reported reason of not having been ill. “So, paying in advance for future healthcare cost is a "gamble" that few poor people can afford to take.”

What we have demonstrated is that the concept of a mobile health wallet is technically feasible. Funds can be ring-fenced in such a way that they can only be used to pay for healthcare (or for any other defined purpose, for that matter). Also, we have demonstrated that both patients and providers are willing to use it.

**Short stories**

Lucy

Lucy (39) runs a maternity clinic in Korogocho, one of the most dangerous slums in Nairobi. Per month, the clinic handles about 300 deliveries. It was found ed by one of the local church chapters, because of the unusually high child mortality rate in the area. Research had shown that 8.5% of the women who deliver at home, in their corrugated iron huts, lose their baby during or shortly after birth.

Safety of both patients and staff is a daily concern for Lucy. Women coming to the clinic after dark are often robbed off their cash. Even behind bars and reinforced doors, the clinic’s cashier and turnover are not safe. Cash is deposited at the nearest bank several times a day. Each time by a different staff member, taking a different route, at different hours of the day.

The introduction of mobile payments has brought about unexpected change at the clinic, says Lucy. Women can no longer be robbed off their cash. Resulting in more women being able to pay for maternal services themselves, rather than relying on charity. And more women are now coming to the clinic for safe delivery.

Mabel

Mabel (27) lives in Mathare slums, Nairobi. She has three kids, with a fourth one on its way. Her husband died last year. Supported by friends and family she struggles daily to make ends meet. Sometimes she has an odd job doing cleaning or laundry work. Sometimes she makes some money selling fruit or vegetables.

Her mobile phone is indispensable. For this is how she hears of day jobs that might be available, or where cheap bananas are to be had. There are times when she can only afford one meal per day, or eats nothing at all. The children come first, and school fees must be paid. Even airtime has a higher priority than food for herself. Because no airtime means no (social) network.

Today her sister called. She urgently needed money for medication. With much thought Mabel remitted 100 Kenya shillings, via M-PESA, the mobile money transfer service. She cannot really spare the money. But she hopes and trusts that others will chip in next month to pay for her delivery.

Jane

Jane (50) is one of the “Ladies of Influence”. Living in Kibera, the largest slum in Nairobi, she laughs heartily about her pretentious title. She doesn’t care much for status, but she is proud to be part of a savings group ("chama") bearing that name. Every two weeks she and a dozen friends put aside some money collectively. This is how they save for later, using group pressure to enforce compliance.

In the past, members would take turns in using the proceeds, or “pot”, to pay for some major expense or purchase. Recently, however, they have started saving for healthcare, in a mobile health wallet.

Jane is a canny customer. Off the top of her head she starts summarizing what medical expenses she typically faces in a year. Well aware, too, that medical costs are inevitable, always coming sooner rather than later. Smart girls think ahead, she grins. To continue more cautiously about another big advantage. Namely that her loving husband cannot lay his hands on the money.

Notes


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