CASE STUDY 9: D-TREE TANZANIA

Background

D-tree International is a non-profit organization committed to improving the quality of healthcare with the use of innovative technology. D-tree established a program in Zanzibar, Tanzania to help frontline community health workers provide high quality maternal health care and adequately refer women with high-risk conditions and obstetric emergencies to health facilities. The program currently has 208 trained traditional birth attendants (TBAs) and community health workers (CHWs) who serve a network of 4,500 women who have enrolled in the program.

TBAs in Zanzibar are typically paid to assist deliveries. It is therefore a financial disincentive for TBAs to refer their patients to health facilities, since this represents a loss of income.

> **Type of program:** Payment of incentives to TBAs and emergency transport costs for pregnant and post- partum women
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> **Health focus:** Maternal health, emergency transport
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> **Date launched:** November 2011
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> **Stage:** scale-up
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> **Size:** 208 TBAs, expected 350-400 by end of 2014
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> **Country:** Tanzania (Zanzibar)
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> **Key partners:** The Bill and Melinda Gates Foundation, Zantel, Etisalat
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> **Mobile providers:** Zantel,
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> **Funding:** The Bill and Melinda Gates Foundation Grand Challenges Round 1 and Round 2

Mobile Money

In November 2011, D-tree was awarded a grant through Grand Challenges Round 1 and launched a program in Zanzibar that offers mobile-enabled clinical guides to TBAs to help them treat women and identify women who should be referred to health facilities. D-tree also forged a partnership with Zantel, the largest mobile phone operator in Zanzibar, and Etisalat to incorporate an SMS-mobile money payment system into the program. Phase II started with a Round II grant in late 2012.

The mobile money payment system used by D-tree incentivizes timely and appropriate referrals. TBAs conduct home visits, screen each pregnant woman for risk factors and danger signs, identify need for referrals and accompany the woman to the health facility, and provide follow-up care for both mother and baby after delivery. D-tree uses mobile money to ensure that TBAs are able to make prompt payment for transport for the woman to deliver in a health facility or in case of any complications for both mother and baby that require medical attention. Transfers are made from the TBAs' mobile money accounts to the drivers' accounts at pre-negotiated rates to the appropriate facility, costing and average of US$30USD per referral. After the TBA's last follow-up visit to the family, D-tree pays each TBA US$6 per facility delivery through mobile money as well, which is higher than the amount the TBA would make from an assisted delivery.

Results

As of October 2013, more than 1,720 financial transactions had been sent to TBAs to pay incentives. For emergency transport, the program performed 781 transfers from D-tree to TBAs for transport, while TBAs made more than 3,000 payments to drivers for transport to health facilities. The use of mobile money in the D-tree enables rapid referrals and contributes to increased rates of institutional

deliveries among program beneficiaries, and reduced administrative costs and improved accountability and oversight for program administration.

Lessons Learned

- *Establish strong partnerships with local actors* – D-tree invested in building relationships with the Ministry of Health, district health officials, and local health institutions to ensure buy-in and local ownership of the program. D-tree worked with local health facilities and district staff to identify and establish a network of car owners to provide emergency transport services for the program at fair rates. D-tree also met with village leaders to sensitize them about the project and the importance of facility delivery for the women in their community.

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Mobile Money Payment Process

1. *TBA uses mobile money account to send payment to drivers for emergency transportation for patients*
2. *D-Tree sends payment for referrals ($6.00USD) and advance payment to cover costs for emergency payments via mobile money*
3. *Payment information automatically updated in web-based platform*
4. *TBAs can cash out via Zantel mobile money agents*

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- *Provide adequate training and follow up for mobile money* – D-tree provides a comprehensive training not only on the decision support application, but on the use of mobile money. The initial training covers basic functions of mobile money (e.g. typing letters into phones, remembering passwords, conducting transactions, and checking balances). In the subsequent months, D-tree follows up with newly trained TBAs and monitors their use of mobile payments to ensure that they have a strong understanding of the mobile payment system. This training and oversight process is essential to ensure that the TBAs have a strong enough understanding of how to transfer mobile money transfer so they can complete mobile-based payment while managing complicated emergencies.

- Offer a cash payment option for community health workers – There is a strong "cash culture" in Tanzania, and some TBAs initially took time to become accustomed to using mobile money instead of cash. However, in the 2 years since the initial project launched, D-tree has seen this issue disappear and the drivers and TBAs have been very comfortable using mobile money.

- Building an agent network – D-tree uses Zantel's agent network, which is spread across the country, to allow drivers to cash their money out. When working with an agent network, it is important for the program to verify that all the listed agent locations are fully operational to ensure that the coverage of the agent network meets the programs' needs. This is particularly important in rural areas, where there tend to be fewer agents, and so it is important to work with the mobile provider to ensure they can bring pay points where you need them.

Challenges

- *Integrating mobile payments with existing information technology systems* – D-tree initially had to manually reconcile its payments to TBAs using combined information from the network provider on D-tree's corporate mobile money account and the referral forms from the phone application that showed what the TBAs should spend on each referral. This was a challenging and tedious administrative task because D-tree could only see payments sent to TBAs–not from TBAs to drivers. In 2013, D-tree established a web-based platform that synthesizes payment information in one place, thus providing a running balance for each TBA through an automated system, but with the added ability to manually edit payments if needed. It also flags duplicates, incorrect payments, and low balances so that D-tree can better control the flow of money and track the referral activity for each TBA.

- Measuring impact specifically of mobile money – The benefits and impacts of mobile money are difficult to quantify and to isolate from other program effects. In the case of D-tree, this difficulty is partly because mobile money consists of a bundled package of services.   The costs of not using mobile money, however, would be very significant and would include costs for staff time, vehicle rental, and fuel to arrange visits to complete payment in-person for 1,000 transactions a month (at current scale) or 1,800 transactions a month (at the full expected scale). There is also a security risk associated with cash-payments that is eliminated with the use of mobile money.

Looking Forward

D-tree is successfully scaling up the use of mobile money as it expands its program. Currently, 208 TBAs are enrolled in the program, as well as 32 Community Health Workers using the same application, and this project will have scaled up to 350-400 users by the end of 2014. Because of the success of using mobile money in Tanzania, D-tree is seeking other opportunities to phase out cash in its programs and eliminate financial barriers to healthcare.

Sources

- http://www.globalgiving.org/projects/safedelivery
- Interview with Steve Ollis, Chief Operating Officer, D-tree International. October 2013.