



Mobile Phone-Based Hygiene and Sanitation Promotion in Somalia

INTRODUCTION

Somalia continues to experience one of the most complex humanitarian crises in the world and is one of the most restrictive and insecure environments for humanitarian actors. The public health situation in Mogadishu is at crisis levels following the rapid expansion of the population over the last 5 years. Repeated outbreaks of cholera and Acute Watery Diarrhoea (AWD) and the recent reoccurrence of polio indicate that poor hygiene and sanitation practices persist. There is little evidence to show that approaches conventionally used in humanitarian settings, focused on the delivery of hygiene items and mass communication of messages, have resulted in consistent behavior change. At the same time, approaches such as PHAST, traditionally used in development settings, have been difficult to implement because they rely on stable and secure conditions for hygiene promoters to undertake face-to-face sessions over a period of time. Flexible and innovative use of technology is one way to increase the coverage and impact of critical hygiene and sanitation interventions.

Mobile phone use is very high in Somalia: more than 72% of adults in Somalia say they own a mobile phone and Oxfam GB estimates that each phone is regularly shared with up to 10 other people. The popularity of mobile phones is related to a strong culture of communicating news and because phones are used for receiving remittances from the diaspora. This high demand, combined with a strong business culture, has allowed private telecom service providers to thrive. This Field Note describes the m-WASH programme, implemented by UNICEF and Oxfam GB, using innovative mobile phone

KEY POINTS

- *In a high-risk and hard-to-reach setting, hygiene and sanitation promotion has been scaled-up by leveraging high mobile phone use and coverage.*
- *The use of mobile phones as a communication channel enables hygiene and sanitation promoters to reach high numbers of people at relatively low cost.*
- *The mobile-based platform, m-Link, is based on Short Message Service (SMS), which makes the approach highly scalable since it does not require smart phones or Internet access.*
- *The m-Link platform served multiple purposes in the project including: to support baseline and other monitoring data collection in hard-to-reach areas, registering beneficiaries; supporting interactive education; as well as to target and/or distribute hygiene items.*
- *Partnerships with a local phone company and a local NGO were key to the success of the project.*
- *The m-Link platform has the potential for application in other countries/areas where access and/or security may be constraints to hygiene and sanitation coverage but where mobile network coverage is high.*

applications to increase the delivery and quality of hygiene and sanitation promotion in communities affected by polio as well as cholera in Mogadishu.



DESCRIPTION OF INTERVENTION

The m-WASH project builds on an earlier pilot using the m-Link platform to promote hygiene and sanitation messages to beneficiaries in IDP camps in Mogadishu. Key findings from the pilot are summarized in the Box 1.

Piloting Innovation and an Evolving Project Design

The m-WASH project (2013-14) was designed by Oxfam GB in partnership with UNICEF to target 250,000 people in Mogadishu with polio messages, using a mobile platform to target distribution of hygiene items. Beneficiaries were selected and sent an m-Voucher on the phone to access the items from distributors. The steps in the project were as follows:

- Awareness campaign by local NGO;
- Self-registration of beneficiaries through mobile phone;
- Hygiene and sanitation promotion through interactive Question and Answer (Q&A) SMS;
- Pre- and post-course knowledge survey;
- A list of registered households and household characteristics was used to identify vulnerable households to be targeted for donation of hygiene items;
- Primary and secondary vendors were identified and prequalified to distribute hygiene packages;
- Hygiene items were supplied to vendors from WASH Regional Supply Hubs;
- Selected households were targeted to receive free items that would facilitate better hygiene behavior using the database and against agreed criteria (including number of under 5 children, completion of education modules, women headed households – these households received an m-Voucher on the phone;
- Households redeemed vouchers and collected hygiene items from the prequalified vendors;
- Interactive education on use of hygiene items (such as Aquatabs) through SMS; and
- Post-distribution monitoring through SMS surveys.

Box 1: Oxfam GB Pilot Project in 2011/12

- A feasibility study reported very high phone usage, including amongst illiterate women who use younger family members to help them read written messages.
- 91,651 people were targeted with cholera messages through interactive SMS-based education sessions.
- The programme was originally planned as a partnership with a local phone company but the company declined to take part due to security concerns.
- An independent platform was established with a local NGO partner (Hijra) instead.
- A number of challenges were identified relating to system failure, the cost of SMS and the length of the Q&A sessions, which resulted in a high dropout rate.
- With some changes, the approach has great potential for scaling-up.



Social Mobilisers Assist IDPs with Registration

Households registered to join the m-WASH project and completed a demographic questionnaire, which allowed the project managers to build up a database of participants. Engagement with the project was completely voluntary: registration was slow at first so a local NGO sent out community mobilisers to raise awareness and explain how the project worked. This stimulated much higher participation from internally displaced persons (IDPs), resident in temporary settlements, but registration from permanent residents remained limited.

In the first month, only 5,000 out of 50,000 targeted households had collected their free hygiene items. Beneficiaries were doubtful about whether the SMS and m-Voucher were genuine and if they were really going to get the items. Partners agreed that the local NGO would call households directly instead of relying on the automatic SMS. This worked much better and stimulated a huge increase in the uptake with 20,000 household kits distributed within 2 weeks. The distribution period was then extended to reach the full 50,000 target.

Multiple Uses for a Single Mobile-to-Web Platform

Unlike most other mobile-to-web platforms used by humanitarian actors in Somalia, the m-Link platform can be used for multiple different purposes including: beneficiary registration; interactive education; targeting; distribution of hygiene items; monitoring; and payment.

Baseline Knowledge, Attitude and Practice (KAP) surveys were undertaken in the target districts. For these (and other surveys performed during the course of the programme) data automatically uploaded from the phone to the server. Any data quality problems could be identified and corrected immediately. This reduces the need for separate data entry and removes the need to return to the field for verification/validation. The platform allows for self-reported as well as enumerator-assisted data collection.

The hygiene and sanitation education was done by SMS through two-way interactive sessions. Participants receive an SMS with information and questions; they select answers to the questions and receive the correct answer after they submitted their response. For example, the polio campaign in Mogadishu consisted of 5 sessions, with each session consisting of 12-15 SMS exchanges. Users liked the fact that messages can be stored and

referred to later (or shared with friends and family). There were reports of families using the information on Oral Rehydration Salts preparation several months after completing the session.

The m-Link platform also provides a mechanism to distribute items and services through mobile phone vouchers (m-Vouchers). This was done by sending unique codes via text message that are exchanged for items from the nearest prequalified local traders.

WASH Regional Supply Hubs (RSH) supplied the hygiene items to the selected and trained vendors. UNICEF set up the Hubs as part of an emergency supply chain using local NGOs but bypassing the existing market system (which was not strong at the time). Traders were trained to handle the hygiene items and distribute them against the m-Vouchers. The initial suspicion that m-Vouchers were SPAM was overcome with direct phone calls to target beneficiaries.

Finally the platform was used for post-distribution monitoring, allowing the project managers to verify the records of the traders that had received hygiene items. The phone platform could also be used to monitor whether people have completed the hygiene education modules. At present, there is no capacity to monitor actual behavior change: beneficiary feedback might be unreliable although the information on completion of the course could be triangulated with household visits to measure Key Performance Indicators (KPI).

The Technology m-Link – Integrated, Interactive Text Message (SMS) and Mobile Phone Voucher (m-Voucher) Platform

- An interactive mobile phone application that uses text messages (SMS) to engage communities.
- The platform is cloud-hosted and does not require any installations to be done on phones.
- It is a cost-effective mechanism to increase reach and access.
- It is easy and cheap to scale since it uses the mobile phones that people already have.
- With some changes, the approach has great potential for scaling-up.





Household hygiene education through the mobile phone-based interactive sessions

Partnership is Key

During the project the independent messaging center housed by a local NGO (Hijra) was migrated to Hormuud, the largest phone company in Somalia. This required negotiating a ‘short code’ from Hormuud to allow the SMS-based Q&A sessions to run on the mobile phones of all Hormuud subscribers for free. The use of this ‘short code’ system is relatively new in Somalia and was developed together with Hormuud and gives the company an opportunity to develop a new market segment that uses a ‘short code’ platform for interactive sessions in a variety of businesses.

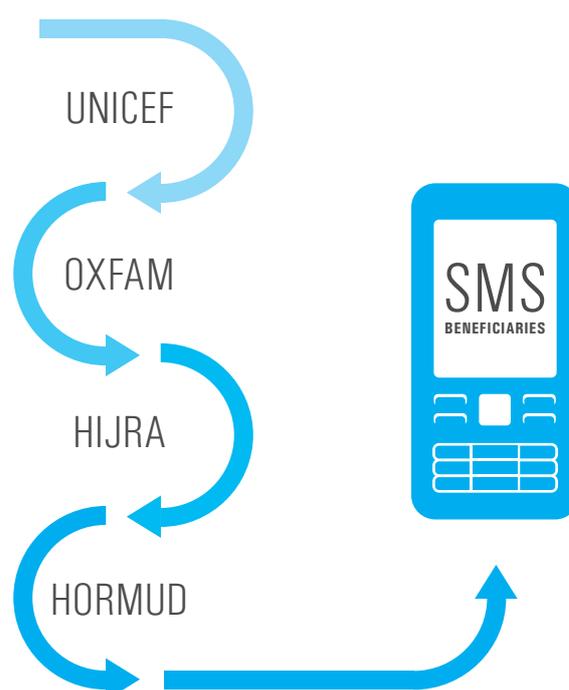
The partnership with Hormuud was difficult to negotiate, resulting in delays, but was essential to take the pilot project to scale in phase 2. The ‘short code’ system used for the hygiene education was developed jointly with Hormuud.

The initial pilot was implemented through an independent SMS messaging system, bypassing the phone companies. The main disadvantage of this was the logistics involved in refunding the credit to participating beneficiaries since the service was not provided for free by the phone companies. There was also a need for a close working partnership with the phone companies to address all the challenges.

The partnership with Hijra proved essential to overcome user suspicion and bottlenecks in the

project implementation. Hirja’s long presence in Mogadishu and its network of community-based mobilisers were able to promote the project and carry out follow-up action (face-to-face and phone calls) to keep users engaged. The initial awareness-raising in all districts to encourage people to register for the project was a critical step which had not been foreseen at the design stage.

Figure 1 - Partnership Arrangements for the Mobile Based Hygiene Project



OUTCOME

104,358 people registered on the m-Link platform, however estimates suggest that the hygiene and sanitation sessions reached over 1 million people, based on the assumption that 10 people share each mobile phone¹.

86% of registered participants (104,358) completed all of the hygiene and sanitation promotion sessions. This high retention rate shows that, despite the challenges, participants had the motivation to go through and complete all the sessions.



Women with hygiene items



Targeted beneficiaries collect hygiene items from vendors using m-Voucher

The majority of the people who registered for the project were IDPs living in temporary camps; they were considered to be the most vulnerable group with highest levels of WASH-related disease and were subsequently targeted for distribution of hygiene items. However the poorer residents of Mogadishu are also at risk from poor access to safe water and hygiene and could be targeted for future expansion of the programme.

According to the household survey carried out by Oxfam GB as part of the end of project evaluation, 25% of the households said they do not know the causes of polio. However, nearly 100% of households knew the symptoms and measures to prevent polio and the number of children under 5 vaccinated rose steadily during the period of the project. Nevertheless, attribution of this increased awareness is difficult since users were exposed to other hygiene promotion within the camps.

The new m-Voucher system took time for both beneficiaries and vendors to learn how to use it. Many of the households targeted to receive hygiene items did not pick up their items, lost or deleted the m-Voucher or did not understand the process. Many businessmen and their agents were not motivated to work with vouchers and additional stock. As a result of these challenges, the approach to distribute the hygiene kits was changed to use conventional manual distribution alongside the m-Voucher based distribution. By end of the project a total of 2,952 kits were distributed through the m-Voucher system and 46,624 through manual distribution.

¹ More detailed surveys on the extent of transfer of hygiene information between phone users are needed to work out a more realistic multiplier.

LESSONS LEARNED

- Mobile phone use is very high in Somalia (nearly 75%) despite low literacy levels. Use of SMS-based communication meant that the programme was accessible to a large number of people. Beneficiaries did not need smart phones or internet access.
- The flexibility of the m-Link platform to perform multiple functions (targeting, education,

monitoring and distribution) is unique and has the potential to be adapted for use in other parts of WASH programming as well as other sectors.

- Mobilisation for registration, by local NGO field workers, proved to be a critical step and was more effective at increasing registration than mass communication. In future mobilisation should extend to residential areas as well as IDP camps.



● **Interactive hygiene and sanitation promotion sessions:**

- Youth were more likely to participate in interactive sessions than older men or women.
 - There was disappointment when users realized that completion of the education modules did not automatically guarantee them access to the free hygiene items.
 - Future projects could consider incentives to complete the hygiene education modules, including distribution of hygiene items.
 - Targeted household visits for face-to-face hygiene promotion might be a way to counteract drop out from the hygiene education modules.
 - Community polio and hygiene promoters should also be able to access the SMS messages to inform their work in communities.
 - Surveys indicate that many households in target areas received their information primarily from school-aged children, which could present an opportunity for an adaptation of the m-WASH project for schools.
- Negotiations with the phone company were very difficult due to security fears on mass messaging and possible repercussions from parties to the conflict (for example, Al-Shabaab demanded that

internet access was switched off from mobile phones during 2014).

● **The m-Voucher system has the potential to overcome the problems with associated mass distribution of hygiene items to beneficiaries.**

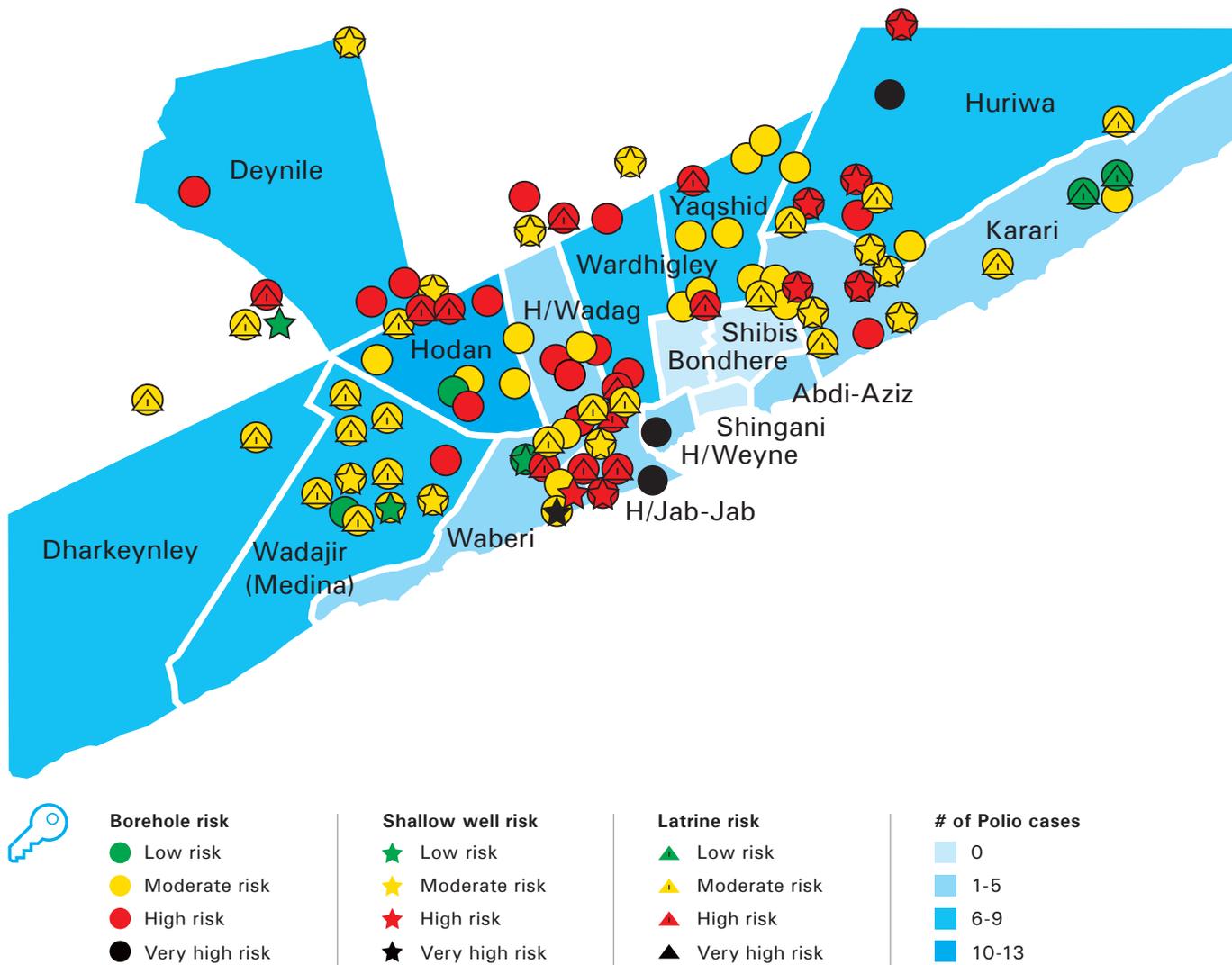
However:

- Vendors needed time and training to get used to the system, including use of mobile phone technology, and to gain confidence in the reimbursement process.
- The WASH Regional Supply Hubs are not a very sustainable way to supply hygiene items because they rely entirely on external funding and supply chains. In future, vendors will be encouraged to stock hygiene items through usual trade supply chains.
- Independent, physical verification of actual distribution to the end users is good practice in this high-risk context but cannot be done everywhere due to restricted access. Mobile phone calls to selected beneficiaries could be an alternative for some areas.
- The list of more than 104,358 registered participants can be used in future for surveys, further education and as a pool of people who can be contacted quickly for a response on a specific issue.

NEXT STEPS

- There is potential for expanding the use of the m-Link platform to routine monitoring of other sector programmes in Mogadishu. Opportunities investigated include field data reporting and mapping, accountability feedback, food distribution and agricultural support (farmer education as well as m-Vouchers for inputs).
- An extension of the m-WASH programme is being designed for hard-to-reach rural areas, especially where there are outbreaks of cholera or polio. For instance, the WHO/UNICEF polio team is expanding prevention activities to the Northern states of Somalia.
- The partners are looking into ways to stimulate demand for hygiene items so the market can supply the items that are currently supplied by UNICEF alone.
- Further developments of the technology include voice interaction (IVR) functionality for people who cannot read/write SMS.
- In future applications, information from sanitary surveys as well as CDC updates on outbreaks could be combined with the database of phone users to target hygiene education more effectively to the 'hotspots' for hygiene and disease risk to achieve maximum impact on disease reduction (see Figure 2).

Figure 2 - Map of Hotspots for Sanitary Risk and Polio Cases



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This Field Note is part of the UNICEF Eastern and Southern Africa Sanitation and Hygiene Learning Series, designed to improve knowledge of best practice and lessons learnt in sanitation and hygiene programming across the Region. The series has been funded by the Bill & Melinda Gates Foundation in support of improved knowledge management in the sanitation sector.

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