

A photograph showing a woman in a blue shirt and a child standing next to a small, mud-brick latrine in a rural setting. The latrine has a simple wooden door and a small window. A white plastic container is hanging on the wall. The background shows dry trees and a clear sky.

# COMMUNITY-LED TOTAL SANITATION MOBILE SURVEILLANCE

## *Tracking water and sanitation data with the DHIS2 Java-based mobile client in Zambia*

### DATA COLLECTION

#### Implementation date: 2013

*In a country where 80 percent of all disease cases are related to water and sanitation, 50 percent of Zambians are without access to adequate sanitation. By 2015, the Zambian Government plans to halve reduce the proportion of the population without access to an improved sanitation facility by 50 percent (MDG 7). However, since the majority of the population lacks access to sanitation and lives in rural, hard to reach areas, understanding challenges on the ground is difficult. The Ministry of Local Government and Housing needed a clear picture of sanitation and its management in each village in Zambia.*

*Based on DHIS2 (District Health Information System), Akros partnered with the Government of Zambia to design a comprehensive WASH surveillance system that enables the rapid flow of village-based water and sanitation data. Almost 1,000 community-based volunteers in 28 rural districts across Zambia submit monthly data using simple Nokia feature phones. The data are submitted to a central server and immediately available to decision makers at district, provincial and national levels, allowing them to monitor and respond more quickly to sanitation concerns in each village, engage traditional leaders, and better target interventions.*

### About Community Led Total Sanitation Mobile Surveillance

Using basic Nokia feature phones running the DHIS2 Java-based mobile client, Community Champions (CCs) submit village-level water and sanitation data. As community-level volunteers demonstrating strong community mobilization skills, the CCs receive basic sanitation training to “trigger” at least ten villages and illustrate the crucial link between sanitation and health status. Triggered villages form Sanitary Action Groups (SAGs), who monitor and support latrine construction in their villages.

Each month, the CC meets with each of the ten SAGs to monitor monthly improvements in access to sanitation at the village-level and collect data that includes the number of improved latrines and adequate latrines, including the four parameters that constitute an adequate latrine.

CCs are the only point of data entry; their work is therefore crucial in understanding challenges on the ground. They are rewarded for timely reporting with airtime, though the phones also allow for feedback from the district level directly to the CC. For example, district personnel may observe in DHIS2 that CCs are not hosting required meetings with sanitation action groups (SAG); in response, district personnel may create a message directly in the DHIS2 interface, which DHIS2 will automatically convert to an SMS and post-sent to CC phones. Many CCs live in remote areas, but the phones have allowed for more interaction and feedback down to the village level.

The CC also provides ongoing education on the data collection framework, troubleshoots latrine construction techniques, and supports behavior change interventions.

## Evaluation and Results

In a six-month period, Akros rapidly scaled up the CLTS mobile surveillance to 28 districts across 6 provinces in Zambia, training almost 1,000 CCs and 400 Environmental Health Technicians (EHTs) on phone usage, navigation, and reporting structures.

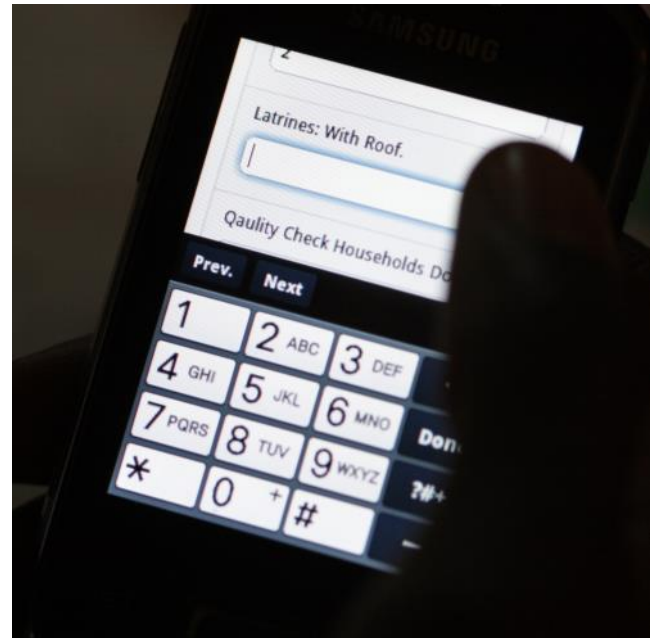
Decision makers are able to review monthly sanitation data from 10,270 villages throughout Zambia and can pinpoint specific villages with poor access to improved sanitation as well as the limiting factors for ODF attainment. As a result, targeted interventions can be identified to support challenges on the ground. The system gives all decision-makers simultaneous access to real-time data, opening communication channels between various levels from village up to national level. With a strong, decentralized surveillance system in place, the Government can overlay critical water and sanitation data to provide a full picture of WASH practice in Zambia.

## Lessons Learned

- Feedback mechanisms are crucial: community volunteers feel supported and motivated through continuous follow-up and supervision. Feedback downwards is equally as important as submission of data upwards.
- Simple mobile devices are easier for CCs to navigate, and have better access to the cellular network than smartphones
- Rewarding CCs for reporting encourages timely reporting
- Empowering sub-district decision-makers such as EHTs and Chiefs with timely data improves accountability on CCs

## Conclusion

Mobile surveillance provides central level decision makers with access to accurate, real-time data and thus allows for targeted, timely interventions throughout the country, even in more remote areas where data was previously hard to obtain.



**Geographic Coverage:** 28 districts in six provinces across Zambia

**Implementation Partners:** Akros

**Funder:** DFID, UNICEF

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See References on page 89.