



Sustaining and Scaling School Water, Sanitation, and Hygiene Plus Community Impact



Testing Mobile-Based Data Collection for School Water, Sanitation and Hygiene

Background

Promoting data-led decision-making on school water, sanitation and hygiene (WASH) is one of the goals of the SWASH+ Project. From 2013 to 2015, the project conducted a trial relevant to the Education Management Information System (EMIS) in Kenya. The EMIS faces a number of challenges common to the first generation of EMIS systems in Africa.

A key challenge is that data capture depends on two activities that are vulnerable to error, reporting bias and significant delays. Firstly, data collected is self-reported with few/no

opportunities for validation. Secondly, the data is collected on paper forms which must be transmitted to the main office for electronic capture. The speed of transmission depends on how quickly the head teacher completes the form and how promptly the forms are sent to the main office. As a result, data capture typically occurs long after the original forms were filled out. Consequently, data captured is incomplete, often inaccurate and is dated by the time it is available to decision makers.

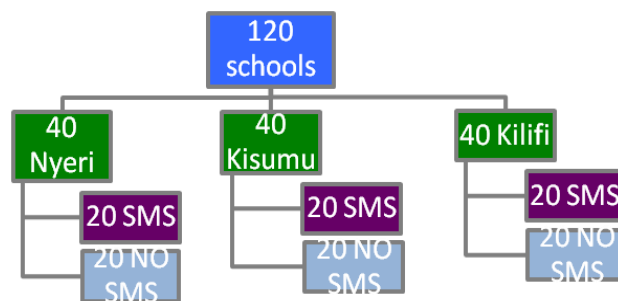
Addressing the challenges above requires a strategy that decentralizes many of the key activities that are vulnerable to the bottlenecks described above. In this EMIS trial, we test a solution that decentralizes both data capture and the utilization of the data, while



eliminating many of the delays that undermine the power of the EMIS. In particular, we implement [Mobenzi Researcher](#), a mobile-based data capture application at the school level that transmits data directly to a database over the internet.

Research

In each of the intervention counties—Kisumu, Nyeri and Kilifi—40 schools were randomly selected to serve as intervention schools, the other 80 as controls. Care was taken to stratify by



remoteness so we could learn about the efficacy of the intervention in schools far from the cellular network.

Half of the study schools were assigned to receive daily SMS reminders to complete the mobile survey by 14th November.

Training: In cooperation with the county education office, two days of training were conducted. On the first day head teachers were trained on the application; on the second day deputy head teachers were trained. Ninety-five % of invited participants attended the training.

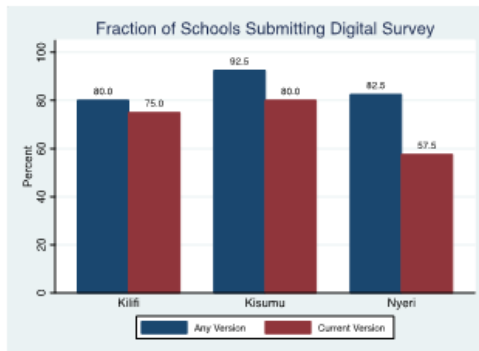
to improve the accuracy and timeliness of EMIS data.

Findings

Eighty four % of schools submitted the mobile survey by November 14th, two weeks after the survey was launched.

Schools that also received the daily SMS reminder were 17 percentage points more likely to submit.

Contrary to expectations, schools in remote locations were more likely than non-remote schools to submit mobile surveys.



This trial coincided with other reforms implemented by the EMIS unit that included:

- Shortening the survey from 11 pages to 2
- Use of SMS and other incentives to increase response rates

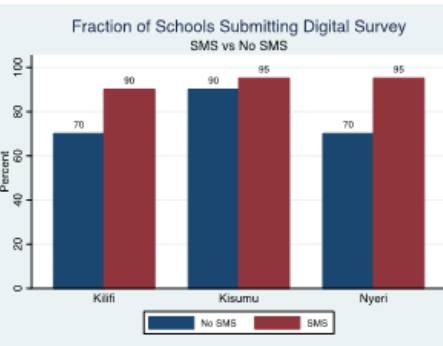
While submission rates of paper surveys to the ministry were around 90% by December 1, the data entry did not start until mid-December.

Focus groups: A series of focus groups were held in each county to get feedback about the application. Overall feedback was very positive. However, there were complaints about network access, particularly related to downloading updates as well as the inability to keep a school copy of the data.

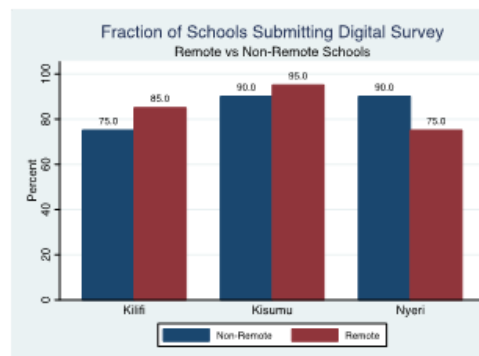
This trial demonstrates a strong proof of concept that mobile based surveys can be implemented country-wide

Next Steps

In collaboration with RTI International, the SWASH+ Project will be implementing county-wide studies of mobile



and tablet based capture in Isiolo and Mombasa counties. These trials will be accompanied by report card



-generating feedback to schools to increase buy-in (a successful strategy piloted by the Ministry of Education, Science and Technology and UNICEF).

About SWASH+

Creating effective and long-lasting solutions for school water, sanitation and hygiene (WASH) services is the mission of the SWASH+ Project. Funded by The Bill & Melinda Gates Foundation, the project is a partnership of CARE, Emory University, Georgetown University and the Government of Kenya. SWASH+ uses an action-research approach for testing innovations that can be brought to scale for the good of Kenya's school children. Extensive documentation of research from Phase I of SWASH+ is available at www.swashplus.org.

