

## Notes from the field

# Real time data improve quality of care in Zambia

Malaria continues to be a major cause of illness and death in Zambia, particularly among children. Control of the disease is one of the government's highest priorities as part of their efforts to reduce preventable mortality. In 2010, Zambia committed to confirming malaria cases through diagnostic testing and providing antimalarial treatment only when test results are positive. With support from the US President's Malaria Initiative, Zambia's National Malaria Control Center and MalariaCare have been working together to strengthen the quality of malaria diagnostics and ensure proper treatment.

To that end MalariaCare supported the introduction of an electronic data system (EDS) in four of Zambia's provinces (Central, Copperbelt, Northwestern, and Western). The EDS, a tablet-based data gathering and sharing tool, provides decision-makers with feedback on health facility performance in near-real time. As Victoria Longa Kalota—technical advisor for the project—explains, “The EDS helps laboratory and clinical supervisors assess health facility performance and provide feedback to health providers during supervisor visits. In Zambia, we've trained 25 provincial, 40 district, and 10 national level supervisors to deploy the EDS and to use its data for decision-making. To date they have conducted two rounds of outreach training and supportive supervision (OTSS) visits using the EDS. Now OTSS data can be analyzed more quickly than when paper-based checklists were used.”



Supervision visit to Kabwe General Hospital, Zambia. Photo: Victoria Kalota

Ms. Kalota continues, “The EDS helps provide decision-makers with a clearer picture of malaria case management performance at provincial, district, and health facility level.” For example, during supervision, Mr. Moses Mulenga, a clinical officer at Kabwe General Hospital, explained that his normal practice was to do what he had been trained to do back in university—to assess fever patients clinically and, in most cases, to prescribe an antimalarial. With the help of EDS, the supervisor was able to identify performance areas requiring updating (like moving from presumptive diagnosis to “screen and treat”) and to mentor Mr. Mulenga in line with national guidelines. Mr. Mulenga summarized his experience this way, “The onsite training and supportive supervision increased my skills and confidence in treating malaria in children, pregnant women, and adults. I will strive to teach my colleagues that no patient should be given an antimalarial before testing, and that no patient should be given antimalarial if the test result is negative.”

The EDS allows supervisors to rate health staff performance on a number of key diagnostic and clinical indicators, such as best practices in microscopy and RDT use, among others. Based on supervisor observation, individual staff are assessed, then their scores are aggregated for the entire facility (a hospital or urban health center, for example). The data are uploaded to a central server as soon as the supervisor has internet access. Once online national, provincial and district malaria program staff can review the results on a desktop, tablet, or smartphone, as in the figure below. Yellow and orange color-coding indicate sub-standard performance and the need for additional interventions. Having access to real time data like these alert managers to such problems.

### Scores by Facility

Health facility	Region	Level	Microscopy	RDTs	Clinical observation	Testing prior to treatment	Test adherence	
							Negative test adherence	Positive test adherence
HF 1	Central	Hospital	99%	91%	77%	100%	90%	100%
HF 2	Central	Hospital	99%	79%	87%	100%	90%	100%
HF 3	Central	Hospital	95%	88%	96%	100%	90%	100%
HF 4	Central	Hospital	99%	97%	95%	100%	70%	100%
HF 5	Central	Hospital	99%	73%	93%	100%	90%	100%
HF 6	Central	Hospital	100%	92%		100%	100%	100%
HF 7	Central	Hospital	98%	92%	90%	100%	90%	100%
HF 8	Central	Hospital	100%	85%	92%	100%	90%	100%
HF 9	Central	Hospital	99%		97%	100%	80%	100%
HF 10	Copperbelt	Health centre		100%				

The EDS system has gotten good feedback from staff to date, and the government plans to roll it out in additional provinces over the next few years.

For more information or to request program or technical assistance:

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