

# Using the collaborative quality improvement approach to increase adherence to the test, treat, and track malaria case management framework: Experiences from 10 health facilities in Uganda

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## Key messages

- The Collaborative Quality Improvement (CQI) approach is an easy to apply intervention that can be used in low-resource settings.
- Using a CQI approach can promote accurate and complete data collection and recording among health workers.
- Using a CQI approach can improve health workers' adherence to malaria management guidelines.

## Background

Malaria is a leading cause of morbidity and mortality in Uganda and in 2014 was responsible for:

- 19 percent of Uganda's parasite prevalence
- 30-50 percent of outpatient visits
- 15-20 percent of hospital admissions
- 20 percent of inpatient deaths.<sup>[1]</sup>

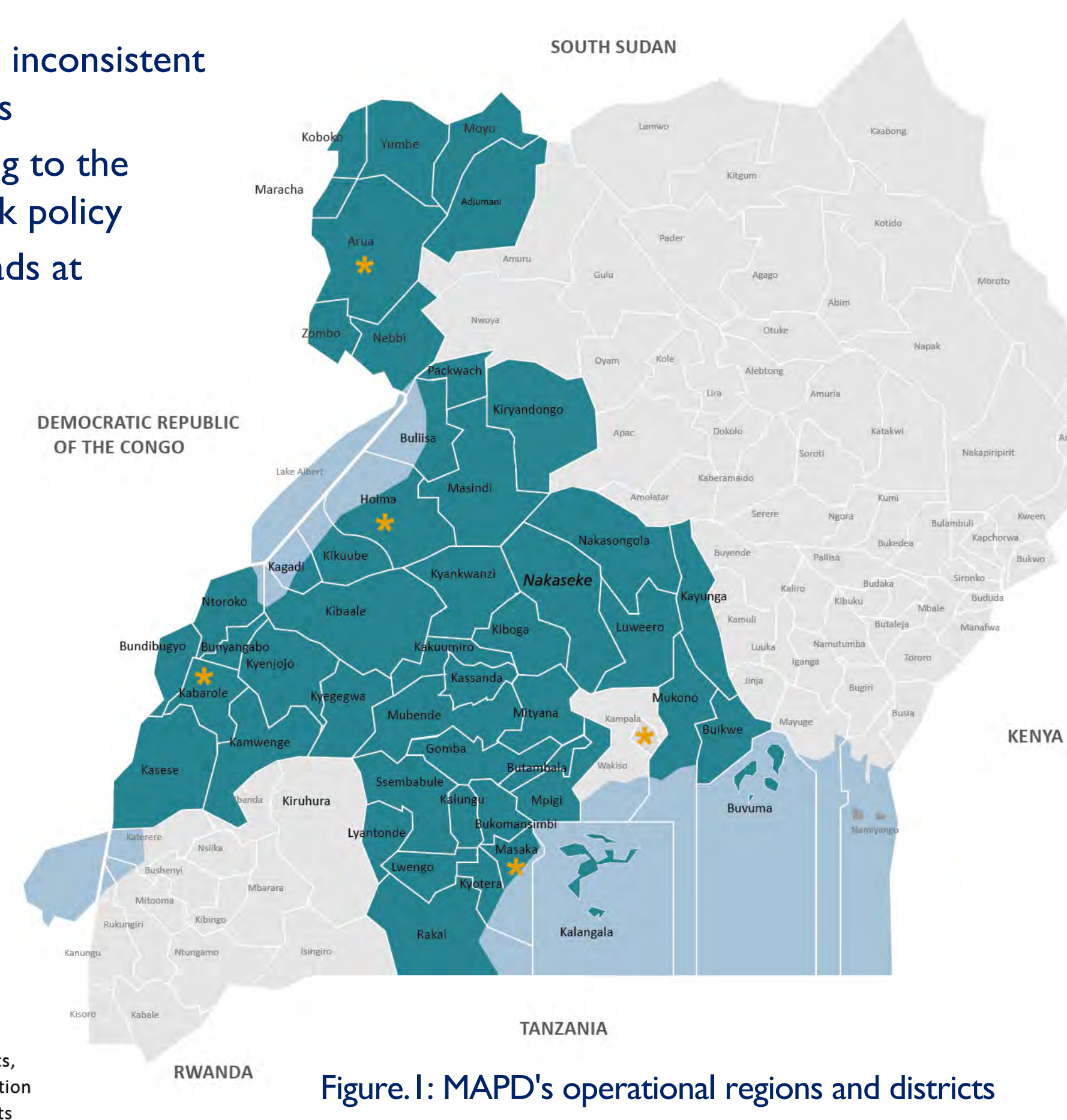
In an effort to reduce its malaria burden, in 2016 the Ministry of Health in Uganda incorporated a number of World Health Organization recommendations into its National Malaria Policy Guidelines. The main recommendations implemented by health workers were:

- testing all suspected malaria cases with malaria rapid diagnostic tests (mRDT) or microscopy before treatment
- using artemisinin-based combination therapy (ACT) to treat only positive malaria cases
- providing at least three doses of intermittent preventive treatment in pregnancy with sulfadoxine-pyrimethamine (IPTp-SP).

However, a number of challenges for malaria service delivery were encountered during implementation, including:

- incomplete, inaccurate, and inconsistent malaria records and reports
- health workers not adhering to the malaria test, treat, and track policy
- malaria causing high caseloads at outpatient and inpatient service points.

To overcome these issues, and in particular to improve adherence to the malaria test, treat and track policy and strengthen the quality of data collection and recording, USAID's Malaria Action Program for Districts (MAPD) implemented a collaborative quality improvement approach (CQI).



MAPD is a project (running from 2016-2021), funded by the US President's Malaria Initiative, USAID, UK aid, and the government of Uganda, which aims to improve the health status of the Ugandan population by reducing malaria-related morbidity and mortality among children and pregnant women.

## Methodology

A CQI approach was introduced to MAPD in November 2017 and implemented using both qualitative and quantitative methods. These included:

- reviewing malaria indicators on the District Health Information System
- identifying 10 high-volume facilities across MAPD's five operational regions with poor malaria indicators (see Figure 1)
- holding entry meetings with the district health teams
- conducting collaborative data reviews and problem analysis with health facility staff
- presenting the results of data reviews to health facility staff to identify inaccurate reporting and non-compliance with the test, treat and track policy
- working with health facility staff to identify potential solutions and interventions
- implementing agreed interventions and reviewing indicators
- monitoring progress using documentation journals
- holding learning sessions led by a CQI coach
- agreeing on new actions.

Malaria indicators reviewed included:

- accuracy and completeness of cases in lab register and OPD
- number of fever cases tested for malaria using mRDT or microscopy
- number of malaria-negative cases treated with ACTs
- number of malaria-positive cases treated with ACTs
- number of pregnant women receiving three or more doses of IPTp-SP.

## The intervention in action



Feedback, problem analysis, and planning

Learning sessions

Reviewing health facility records

## Results

Indicator	Nov-17	Dec-17	Jan-18	Feb-18	Mar-18	Apr-18	May-18	Jun-18
Total number of cases in the lab register sample	300	300	300	300	300	300	300	300
Total number of cases in the lab register sample that are also in the OPD register	141	178	196	298	300	300	300	300
Percent of cases in the lab register sample that are also in the OPD register	47%	59%	65%	99%	100%	100%	100%	100%
Total number of patients treated with ACTs	300	300	300	300	300	300	300	300
Total number of patients tested with mRDTs or microscopy	300	300	279	300	300	286	300	300
Number of cases treated with ACTs that had been confirmed as malaria-positive	273	286	275	300	300	282	300	300
Number of cases treated with ACTs that had been confirmed as malaria-negative	27	14	4	0	0	4	0	0
Number of patients treated with ACTs that had not been tested for malaria	0	0	21	0	0	4	0	0
Percent treated with ACTs that had not tested positive for malaria	9%	5%	8%	0%	0%	3%	0%	0%
Total number of expectant mothers 28 weeks and above that attended ANC visits	378	305	194	198	274	303	349	264
Number of expectant mothers 28 weeks and above that received three or more doses of IPT	164	132	98	104	139	162	191	142
Percent of expectant mothers 28 weeks and above that received three or more doses of IPT	43%	43%	51%	53%	51%	53%	55%	54%

- In a sample of 300 cases from a June 2018 lab register, taken eight months after the CQI approach was introduced, all 300 (100 percent) were recorded in the respective OPD register. This represents a 108 percent increase from when an equivalent sample was first reviewed in November 2017.
- In a sample of 300 patients that were treated using ACTs in June 2018, all patients were tested for malaria using mRDTs or microscopy and no patients were treated that had tested negative. This represents an 89 percent decrease from November 2017 when 27 (nine percent) malaria-negative cases were incorrectly treated using ACTs.
- Of the total 264 expectant mothers (who were 28 weeks pregnant and above) that attended ANC visits in July 2018, 142 (54 percent) received three or more doses of IPTp-SP. This is a marked increase on the 43 percent of pregnant women who received three or more doses in November 2017.
- Feedback from discussions with health workers in facility meetings and regional learning sessions showed that health teams now accept that there is a need for accurate and complete data and understand the importance of adhering to the National Malaria Policy Guidelines.

## Conclusion

- The CQI approach was found to promote accurate data collection and improve adherence to the malaria test, treat, and track policy among health workers at 10 health facilities in five regions of Uganda.

## References

- Uganda Bureau of Statistics (UBOS) and ICF International. Uganda Malaria Indicator Survey 2014-15. Kampala, Uganda and Rockville, Maryland, USA: UBOS and ICF International; 2015. Available at <https://dhsprogram.com/pubs/pdf/mis21/mis21.pdf>

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