

Abstract

Health workers' malaria case management practices in South Central Uganda, 2017–2019

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The US President's Malaria Initiative's Malaria Action Program for Districts (MAPD) project supports malaria control in nine districts in south-central Uganda. Interventions include healthcare worker malaria case management mentorship and quarterly performance reviews. This study sought to compare health worker practices in project and non-project districts. District Health Information System data from health facilities in the intervention (440) and control areas (303) were analyzed. The study period, January 2017 to December 2019, was divided into a pre-intervention period (pre-int), intervention period with no malaria upsurge (post no upsurge), and an intervention period with malaria upsurge (post upsurge). Three outcomes were assessed: proportion of suspected malaria cases that were tested at outpatient departments, suspected cases with a negative test result treated with antimalarial drugs, and malaria related deaths in inpatient departments. In the intervention area, 82% (895,072/1,090,776) of suspected malaria cases in pre-int were tested, increasing to 92% (1,456,929/1,570,818) in post no upsurge, and 68% (823,322/1,204,987) in post upsurge. In the comparator area this was 65% (756,441/1,146,156) in both pre-int and post no upsurge, but only 37% (631,731/1,693,818) in post upsurge. The proportion of negative cases treated in the intervention area improved from 34% (156,489/449,119) (pre-int) to 21% (161,445/754,076) (post no upsurge) to 4% (207,02/452,718) (post upsurge), whereas in the comparator area this reduced from 48% (188719 / 385165) to 17% (92618/553831), but rose up to 32% (131428/409374) in times of upsurge. The proportion of malaria deaths reduced from 18.4% (305/1649) (pre-int) to 3.1% (167/5348) (post no upsurge) and to 1.8% (54/2847) (post upsurge) in the intervention area, but increased from 1.7% (93/5461) (post no upsurge) to 3.2% (78/2424) (post upsurge) in the control area. This study suggests that health workers can sustain appropriate case management practices, even in periods of increased workload. These capacity-building efforts could further improve malaria control if scaled up.

