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INTRODUCTION OF RECTAL ARTESUNATE FOR PRE-REFERRAL TREATMENT OF SEVERE MALARIA AMONG CHILDREN UNDER FIVE YEARS OF AGE AT THE COMMUNITY LEVEL IN MADAGASCAR, 2019-2020

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An estimated 9% of children under five years of age (CU5) in remote Madagascar who present to community health volunteers (CHV) or health centers (CSB) with malaria have signs of severe disease. To reduce mortality in this population, the United States Agency for International Development (USAID)- and the U.S. President's Malaria Initiative (PMI)-funded Accessible Continuum of Care and Essential Services Sustained (ACCESS) and Community Capacity for Health (CCH)/Mahefa Miaraka Programs worked with the Ministry of Health to introduce pre-referral rectal artesunate (RA) treatment. For rollout, we prioritized PMI-supported communities with the highest malaria incidence in CU5 and designed a distribution and monitoring plan; developed job aids and conducted provider training; made communication tools for providers and community members; modified patient tracking tools; and analyzed preliminary data from CHVs and CSBs. From August-December 2019, 13,943 RA capsules were distributed to 44 districts (population 8.8 million, 18% of whom were CU5); 11,578 (83%) to CHVs and 2,365 (17%) to CSBs. A total of 11,672 CHVs and 1,056 CSB staff in these districts were trained in RA use. During January-December 2020, 9,535 cases of severe malaria in CU5 were reported, 3,445 (36%) of whom benefited from pre-referral RA treatment (2,067 [60%] treated by CHVs and 1,378 [40%] at CSBs). Of these, 1,360 (39%) cases had outcome data reported via project tracking tools, and all CU5 had received post-referral treatment with an injectable antimalarial. For the remaining 61% of cases, no follow-up data was available. Furthermore, of 23 deaths in CU5 reported via CSBs and the tracking tool during this time, no details regarding treatment were available. In targeted districts, about one-third of intended CU5 received RA therapy in the first year after the launch of the program. To improve, additional investigation will be necessary to describe missed opportunities for RA use in these districts, and tracking of RA recipients must be more comprehensive to understand if CU5 are properly referred and treated.

DETERMINANTS OF HEALTH WORKERS' COMPLIANCE WITH OUTPATIENT MALARIA 'TEST AND TREAT' GUIDELINES DURING THE PLATEAUIING PERFORMANCE PHASE IN KENYA, 2014-2016

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Health workers' compliance with outpatient malaria 'test and treat' guidelines has improved but plateaued at the highest yet suboptimal levels

in Kenya. We examined the determinants of compliance at the high levels of performance. Association between 31 determinants and three 'test and treat' outcomes were examined using multilevel logistic regression models. A total of 2,752 febrile patients seen by 594 health workers at 486 health facilities were analysed. Higher odds of composite 'test and treat' performance was associated with lake endemic (aOR=8.61; 95% CI: 4.29-17.30), coast endemic (aOR=2.16; 95% CI: 1.02-4.59), highland epidemic (aOR=3.15; 95% CI: 1.81-5.47) and semi-arid seasonal (aOR=1.81; 95% CI: 1.09-3.01) compared to low risk areas; health workers' perception of malaria endemicity as high-risk (aOR=1.85; 95% CI: 1.16-2.94); in-service training (aOR=1.63; 95% CI: 1.19-2.23); correct knowledge about the 'test and treat' policy (aOR=1.64; 95% CI: 1.13-2.39); older patients compared to infants, higher temperature measurements and main complaints of fever, diarrhoea, headache, vomiting and chills. Lower odds of compliance was associated with government-owned (aOR=0.28; 95% CI: 0.17-0.46) compared to FBO/NGO-owned facilities; male (aOR=0.64; 95% CI: 0.47-0.88) compared to female health workers; and for patients having main complaints of a rash (aOR=0.46; 95% CI: 0.23-0.93) and a running nose (aOR=0.67; 95% CI: 0.47-0.94). Other factors associated with malaria testing or antimalarial compliance for test negative patients included supervision with feedback, access to guidelines, health workers age, and a cough complaint. To optimize 'test and treat' case-management, quality improvement interventions should focus on compliance within low malaria risk areas; target male, older and government health workers; disseminate updated guidelines; continue with in-service training and supportive supervision with feedback, and generally improve health workers' knowledge about malaria testing criteria considering their perceptions of endemicity.

RELIABILITY OF REPORTED FEVER IN CHILDREN UNDER AGE FIVE AMONG HOUSEHOLD MEMBERS: AN EXAMINATION OF HOUSEHOLD SURVEY DATA FROM NIGERIA AND MOZAMBIQUE

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Fever among children under age five is the most common symptom household members use as criteria for initiating treatment-seeking. It also used as a screening measure in household surveys for collecting additional health-related information on children. Most surveys have relied on mothers to provide information on their child's fever. However, it is unclear if other household members could provide similarly reliable information. This analysis uses data from three Malaria Indicator Surveys (MIS) in Nigeria (2015 and 2010) and Mozambique (2018) with information on recall of fever among children under age five in the two weeks before the survey. To validate the recall of fever in children under five by household members, the recall of fever as reported by the head of household was compared to the mother's recall using sensitivity, specificity, and kappa coefficients. Across the three surveys, the sensitivity of the head of household's recall of fever ranged from 74.9% in the 2010 Nigeria MIS to 84.4% in the 2015 Nigeria MIS. The proportion of the heads of households correctly reporting that the child did not have fever as compared to the mother's report ranged from 84.7% in the 2010 Nigeria MIS to 94.8% in the 2018 Mozambique MIS. The agreement between the household respondent's report of fever and mother's report of fever, as measured by kappa scores, ranged from 0.59-0.79. Across all three surveys, if the household head was the child's father, the agreement was slightly stronger than if the child was a grandchild or other relative of the household head. This analysis shows that there is a strong collective memory of fever within a household. While a mother should always be the "gold standard" this analysis shows that other household members can potentially provide accurate responses for fostered children or others living in a household without a mother/caregiver.