DRIVING DOWN MALARIA MORTALITY IN 10 HIGH-BURDEN FACILITIES IN THE NORTHERN REGION

A Success Story

BACKGROUND

Malaria is a leading cause of mortality and outpatient visits in Ghana. When the Systems for Health project, supported by the United States Agency for International Development, (USAID) began in 2014 , malaria prevalence among children (6–59 months) in Ghana was estimated at 27%[1], and 40% of all outpatient visits presented as malaria with fever. The Northern Region carried a disproportionate burden, accounting for a third of malaria deaths in Ghana in 2015.[2] The region's malaria case fatality rate for children under the age of 5 years was also 60% higher than the national average.

USAID Systems for Health Quick Facts

Duration: July 2014–June 2019

Implementer: University Research Co., LLC

Partners: Plan International, PATH, and Results for Development Institute

Project Objective: Support the Ghana Health Service to strengthen its efforts to reduce preventable childhood and maternal deaths, reduce unmet need for family planning, reduce childhood morbidity and mortality from malaria, and improve the nutritional status of children under 5 years and pregnant women.

TARGETING HIGH-MORTALITY HOSPITALS IN THE NORTHERN REGION

A review of routine data showed that 65% of malaria deaths in the Northern Region occurred at just 10 district hospitals. To maximize reductions in the regional malaria case fatality rates, Systems for Health targeted select interventions to these facilities. The core elements of the intervention package included the following:

Emergency Triage, Assessment, and Treatment (ETAT): In 2016, Systems for Health trained staff at the 10 district hospitals to implement pediatric ETAT to reduce delays in identifying and treating severe malaria cases. The intervention also included establishing leadership buy-in, restructuring service delivery to support implementation, mobilizing essential medicines and diagnostic tools, and integrating triage into routine practice.

Onsite coaching and post-training follow-up: All ETAT facilities received post-training follow-up visits within three months to reinforce skills, support implementation, and address challenges. Eight hospitals also received targeted coaching in the management of severe malaria.

To provide ongoing support, facilitators conduct periodic coaching visits.

Shared learning: In March 2017, the 10 ETAT-trained facilities participated in a shared learning session, where they collaborated to identify challenges related to ETAT implementation, shared best practices, and proposed change packages. The facilities met again in June 2017 to review results, share lessons learned, and adjust their improvement plans. Additional sessions are planned for 2018.

Region-wide interventions: The hospitals also benefited from region-wide malaria interventions, including training for over 3,800 health workers in malaria case management, malaria in pregnancy, and the use of rapid diagnostic tests; integrated coaching visits to all 26 districts to support improved data quality as well as to identify and address service delivery gaps; and supportive supervision visits to over 80% of the health facilities to improve malaria service delivery.

[1] Ghana Demographic and Health Survey (GDHS) 2014.

[2] Ghana's District Health Information Managment System 2 (DHIMS2).

RESULTS

The 10 targeted facilities saw drastic decreases in institutional overall and under-5 malaria deaths between 2015 and 2017, which were reflected in reductions in malaria mortality throughout the region.

Process improvement

All 10 target facilities are actively implementing pediatric ETAT. In these hospitals, over 95% of essential emergency medicines are available, and 100% of pediatric emergencies are seen within 15 minutes of arrival.

Reduction in institutional malaria deaths

In the 10 targeted facilities, total annual malaria deaths decreased by 79% from 2015 to 2017 (414 to 87; see Figure 1). The Northern Region also saw decreases in institutional malaria deaths of 71% over the same time period (672 to 198). The case fatality rate for all malaria admissions decreased by 70% over the same three-year period (1.08% in 2015 to 0.32% in 2017).

The 10 target facilities saw a decline in their proportion of malaria deaths in the region, from 62% to 44%.

Reduction in institutional under-5 malaria deaths and case fatality

Under-5 malaria deaths decreased by 76% (254 to 62) in the 10 target facilities between 2015 and 2017 (compared to a 69% decrease in the region and 62% decrease in Ghana).

The 10 facilities also saw a 70% decrease in the case fatality rate for under-5 malaria cases from 2015 to 2017 (1.22% to 0.36%; see Figure 2).

LESSONS LEARNED

This targeted, evidence-based approach to reducing malaria mortality offers several important lessons that can be applied to other contexts:

Local ownership enhances sustainability: The Regional Health Directorate of the Ghana Health Service drove the planning and implementation of activities through active collaboration with all stakeholders and the facilities. This ownership and broad engagement will contribute to the increased sustainability of the results.

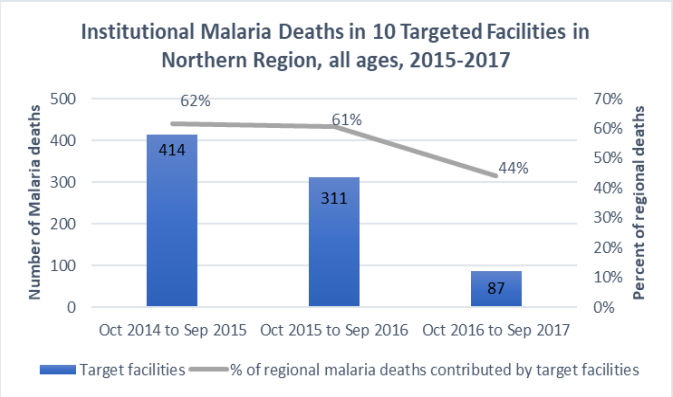

Figure 1. A graph showing the decline in malaria deaths, from 2015–2017, among all ages in the 10 targeted facilities.

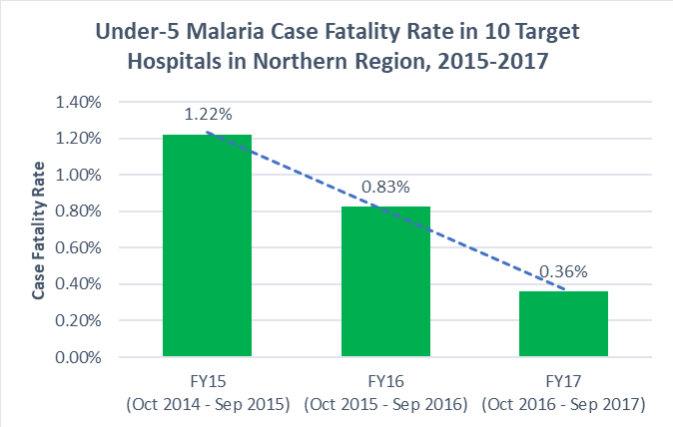

Figure 2. A graph showing the decline in under-5 malaria case fatality rate, from 2015–2017, in the 10 targeted facilities.

Data helps pinpoint where support is most needed: Data analysis enabled the project to target interventions where malaria mortality was the most severe. This approach, along with the ongoing use of data by providers to assess progress, resulted in the rapid reduction in case fatality rates.

Onsite coaching is key: Trained service providers benefit from a variety of onsite capacity-building strategies, which emphasize data-driven planning, counseling, constructive feedback, and supportive and innovative problem solving.

JUNE 2018

USAID Systems for Health is made possible by the generous support of the American people through the United States Agency for International Development (USAID) under Cooperative Agreement number AID-641-A-14-00002. The project team includes prime recipient University Research Co., LLC (URC) and sub-recipients: Plan International, PATH, and Results for Development Institute (R4D). The content of this publication does not necessarily reflect the views of USAID or the United States government.