

The Challenges of Reducing Child Mortality at the District Level: the case of Koutiala, Mali

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Background

MSF set up a medical and nutrition project in July 2009, to reduce infant and child mortality. Between 2010 and 2016, 7 multi-indicator cross-sectional surveys were conducted in Koutiala and the findings showed a reducing trend in under-five mortality and fairly constant prevalence of acute malnutrition. By 2019, MSF expanded the intervention to cover almost all the rural health areas of the district. We conducted a survey to have some baseline health information.

Methods

It was a cross-sectional community-based survey using a two-stage cluster sampling method. Clusters were selected randomly with probability proportionate to size and households selected by spatial random sampling. Under-five mortality rate was estimated for a recall period of 380 days (July 14, 2021 – July 28, 2022) and the prevalence of acute malnutrition estimated in children 6-59 months based on lower limb oedema, mid upper arm circumference (MUAC), and weight/height ratio.

Results

A total of 2320 households and 2982 children aged 0 to 59 months enrolled. Under-five mortality rate was 0.54 deaths/10,000/day [95% CI: 0.38 - 0.70] and this was higher in remote health areas compared to Koutiala city. The major cause of deaths was malaria (36.84%). Approx. 65% of deaths occurred either at home or at the community health center. Among children with at least one episode of ill-health in two weeks preceding data collection, higher proportion used primary health facilities and lower proportion used secondary health facilities in comparison with Koutiala city where the reverse was observed. Prevalence of acute malnutrition was 11.45% and it was evenly distributed across the district.

Conclusion

Under-five mortality rate in Koutiala has risen to the situation in 2010. This contradicts the reducing trend observed in previous surveys. High utilization of health care facilities; low utilization of secondary health care facilities; and high mortality rate at periphery put into question the referral system in place. The reasons for this increase are not known but low utilization of secondary care facility at the periphery suggests that inaccessibility to secondary care can partially explain it.

Under-five mortality rate in Koutiala has risen recently. There is a need to reassess the context and referral system in place and adapt the intervention accordingly.

