Discussion Brief: Lessons from the Malaria Institute at Macha, Zambia
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Malaria persists as a major public health problem, claiming a global toll of 215 million clinical cases and 655,000 deaths, mostly in Africa. (WHO. 2012) Phil Thuma, M.D., pediatrician, Senior Scientific Advisor and founder of Macha Research Trust, which does business as the Malaria Institute at Macha (MIAM), shares experiences on remarkable success at decreasing malaria burden in southern Zambia. Illustrating the power of uniting community, research, and care to fight malarial burden, the “Macha model” halls from a humble mission hospital that “took the bull by the horns” after many years of high malaria cases and fatalities.

MIAM partners are the Macha Malaria Research Institute (a USA-based NGO); the Johns Hopkins Malaria Research Institute at the Johns Hopkins Bloomberg School of Public Health; the Macha Mission Hospital (located right next to MIAM) in southern Zambia; and the Zambian government through its Ministry of Health. The result of this collaboration is a preeminent malaria research and education centre in the midst of a hyperendemic area, which is proving instrumental in developing “home-grown” approaches to conquer of malaria. In order to sustain impact, these approaches are constantly being adapted to the changing epidemiology of the disease. (Kamanga et al. 2010. Sutcliffe et al. 2011)

Key Points
- **Local community engagement, education, and buy-in:** The case of Macha shows that long-term local presence, engagement and education of the target beneficiary community can make a difference. MIAM was introduced to the resident community as well as the nation with due attention to local norms and leadership structure. The facilities were built by local contractors in collaboration with international partners. As a result, MIAM was received well at all levels, with strong local trust and high participation in intervention campaigns. MIAM also established rapport with traditional healers, who feel free to refer malaria patients for modern medication at the locally-owned institute and affiliated Macha Mission Hospital.
- **A multi-pronged Model:** As Dr. Thuma pointed out it is not easy to tease out one intervention as having impacted against malaria, since multiple strategies are deployed, including health education, screening and ACT treatment of the asymptomatic carrier reservoir, reactive case detection using mobile phones and other locally developed strategies. LLINs are also used.
- **A Healthy Economy is Conducive to Successful Control:** MIAM has observed improvements in the national and local level economy, itself contributing by employing community members. Improved economic conditions are believed to have been conducive to the successful experience at Macha, as shown elsewhere. Furthermore, **improved housing conditions and affordable electricity** are key factors in the fight against malaria. He notes that “Mauritius and Turkmenistan reached stable and very effective suppression of malaria at the same time that they provided affordable electricity out even to rural areas.”
- **Public-Private-Partnership:** Some interventions at MIAM were rolled out in concert with Roll Back Malaria with a “can-do” attitude. MIAM also works well with the WHO, Global Fund, USAID, PMI, Norvatis and other partners.
- **No “one-size fits-all”:** Hopefully the Macha experience can be replicated elsewhere. However, as pointed out in the discussion, there is no universal panacea. What is effective in one area may not work elsewhere, and local adaptation is important to maximize impact.

Key References

Enrich the GHDonline Knowledge Base
- If you work in Zambia, please share your experience in the fight against malaria and connect with the MIAM team.

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