

# WORLD CONGRESS ON RHEUMATIC HEART DISEASE

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**Title:** A Comparison of Community Sensitization Approaches to Increase Health Seeking Behavior for Acute Rheumatic Fever in Uganda

**Authors:** Rachel Sarnacki, Isaac Otim Omara, Jenifer Atala, Jafesi Pulle, Emma Ndagire, Joselyn Rwebembera, Craig Sable, Andrea Beaton

**Background & Aims:** Although rheumatic heart disease (RHD) is prevalent in low-resource settings, its precursor, acute rheumatic fever (ARF) is rarely diagnosed and there is low awareness of ARF among communities and healthcare providers. As part of a broader study to characterize the epidemiology of ARF in Uganda, our team launched a community sensitization campaign to increase health seeking behavior for ARF and collected data on the effectiveness of the individual campaign tactics.

**Methods:** We used community input to design a community sensitization campaign including posters, radio advertisements, community meetings, and healthcare worker and teacher trainings. Educational content focused on symptoms of ARF employing the slogan “not all fever and joint pain is malaria.” The campaign directed children, families, and health workers to send suspected ARF cases to referral clinics in Mbarara District (west) and Lira District (east). To evaluate the reach and impact of sensitization by tactic (aim 1), trained volunteers conducted surveys in public areas (churches, markets, etc.). These surveys, which aimed to enroll 500 participants per survey, occurred before and after the campaign in Mbarara and only after the campaign in Lira. To calculate the approximate conversion-to-enrollment rate of each tactic and approximate campaign cost per enrollee (aim 2), we reviewed intake forms to identify sources of referral and calculated the total cost of each tactic per ARF case received.

**Results:** Surveys were administered to 1044 participants in Mbarara District (518 pre-campaign and 526 post-campaign) and 503 surveys were administered in Lira District (all post-campaign). Prior to the campaign 15% of surveyed community members reported having seen ARF messaging (a benchmark of false recall). Post-campaign, 52% of participants in Mbarara and 45% in Lira reported having seen ARF messaging when asked as a yes/no question. When looking the community’s “sensitization,” defined as an ability to accurately cite any content from the campaign, radio programs were more effective than posters. In Mbarara, 30% of the surveyed population were sensitized by radio, and 4% by posters. In Lira, radio sensitized 35%, and posters sensitized 16% of the survey population. Among children and adolescents who presented at the referral clinic for ARF evaluation, 54-64% were referred by healthcare workers (Mbarara-Lira) while 36-46% were self-referrals (Lira-Mbarara). Nearly all of those who self-referred (86%) cited radio as their source of information for coming in for evaluation. Both sites spent around USD\$7, 230 on their approximately 6-month-long campaigns. Referrals coming from healthcare workers cost between \$17-35 (Lira-Mbarara) per referral, while self-referrals cost \$36 per referral and teacher-referrals cost between \$143-500 (Lira-Mbarara) per referral.

**Conclusions:** Sensitization campaigns can increase referrals for children with symptoms of suspected ARF. In Uganda, radio was the most impactful for community sensitization and resulted in the highest number of self-referrals. Additionally, it appears that investing in healthcare worker training and general community sensitization was more cost-effective than teacher-based training at schools. Improving ARF knowledge and health seeking behavior is an important missing piece in global RHD control. Further work is needed to assess the effectiveness of community campaigns to reduce the prevalence and severity of RHD in endemic communities.