

Development of measles vaccination strategies tailored to the local context in the Democratic Republic of the Congo

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Context

In collaboration with the Ministry of Health of the Democratic Republic of the Congo, MSF-OCF implements vaccination interventions through the Urgepi project to prevent and reduce recurrent measles outbreaks in the Katanga region. Achieving adequate vaccination coverage remains challenging and previous qualitative studies have shown that barriers to vaccination are specific to each health zone (HZ). This study explored how vaccination interventions could be adapted to achieve higher vaccination coverage.

Methods

Between 2024 and 2025, Urgepi conducted research projects in four HZ. Vaccination interventions were preceded by baseline vaccination coverage surveys (VCS) and mixed-methods studies, which informed health promotion and vaccination strategies. Post-vaccination VCS were conducted immediately after the campaigns to evaluate their impact. National surveillance data were also analysed to assess the long-term effects of the interventions.

Results

Baseline VCS revealed low vaccination coverage across the four HZ, with substantial heterogeneity within each HZ. Mixed-methods studies identified barriers to vaccination at the community, healthcare system, and structural levels. VCS enabled the identification of areas at highest risk for outbreaks, which were subsequently prioritized for vaccination activities, while qualitative findings informed the development of context-specific messages and community engagement strategies. Post-vaccination VCS demonstrated substantial increases in vaccination coverage after the campaigns. In the longer term, vaccination in

response to an outbreak effectively halted the outbreak, while preventive vaccination resulted in a reduced number of cases but did not completely prevent outbreaks.

Conclusion

Pre-vaccination research enabled better adaptation of conventional vaccination strategies and strengthened health promotion and community engagement activities through the involvement of multiple stakeholders including parents, community leaders and healthcare workers. However, implementation remained challenging, particularly in moving beyond conventional vaccination practices. Simulation exercises and operationalizable research procedures could help improve implementation. Some of the barriers remains outside the scope of MSF interventions.

Pre-intervention research enabled context-specific vaccination and community engagement strategies, improving measles vaccination coverage in four health zones in Katanga. Preventive interventions reduced outbreaks despite persistent implementation challenges