

Evaluate child vaccination coverage and dropout rates in pastoral and semi-pastoral regions in Ethiopia: CORE group polio project implementation areas

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Main Findings

- Of the estimated sample, 577 (96.6%) children were included in the analysis.
- The overall rate of full vaccination was estimated to be 44.0% (21.2% in pastoral areas and 71.6% in semi-pastoral areas).
- With vaccine specific coverage of 53.7% for Bacillus Calmette-Guérin (BCG); 58.8% for oral polio vaccine 3 (OPV 3); 58.8% for pentavalent 3; 56.3% for pneumococcal vaccines and 53.6% for measles.
- Mothers'/caregivers' residence, age and education were found to be significant predictors for children not being fully vaccinated, i.e. children of mothers living in pastoralist communities, young age, and with no education were at a significantly higher risk of being not fully vaccinated.
- Among those children who had at least one vaccine, 20.5% failed to take at least one of the next higher doses.
- Specifically, among those who took BCG and pentavalent 1, 10.1% and 14.1%, respectively, failed to take the measles vaccination.

Introduction & Methods

- The CORE Group Polio Project (CGPP) Ethiopia implemented its interventions in pastoral and semi-pastoral 85 districts of five regions to increase routine immunization coverage and support supplemental immunization campaigns.
- The purpose of this study was to assess vaccination coverage, estimate dropout rates and identify associated factors.
- A cross-sectional study using the modified WHO EPI cluster survey method was conducted as part of the mid-term evaluation in 2015 in six pastoral and semi-pastoral zones in Ethiopia.
- A sample of 600 children age 12 to 23 months was selected, and mothers/caregivers were interviewed at home using face-to-face interviews, supported by mobile data collection using the Open Data Kit (ODK) system.
- Data were collected from mothers/caregivers via face-to-face interviews. The recording of child immunization cards at home or at health facilities was carried out by trained data collectors using a mobile data collection system with Open Data Kit (ODK) tools.
- Data collection tools were translated into three local languages – Amharic, Oromifa and Somali – and pre-tested. The collected data were sent to a central server after being checked by supervisors on a daily basis. Data checking on completeness and consistency was checked by the data manager immediately, and communicated to the field coordinators for correction and check-up in cases of data problems. The data were extracted from the server and exported to STATA version 12.0 for analysis.

Result & Future Direction

- The study highlights the status of vaccination coverage and dropout rates in hard-to-reach pastoral and semi-pastoral areas in Ethiopia.
- The rate of fully vaccinated children in the areas was low and dropout rates between pentavalent 1 and measles immunization, and between BCG and measles immunization, were high.
- The rate of full vaccination significantly varied between pastoral and semi-pastoral areas, mothers'/caregivers' education, and age.

Based on the findings of the study, we make the following recommendations:

- There must be a concerted effort to increase vaccination coverage in the study areas by involving all stakeholders, including the community and the health services, from community to at least *woreda* levels.
- Community-based efforts should be strengthened to trace defaulting children so that missed vaccines can be given to children to get the highest level of protection.
- More emphasis should be given to pastoralist communities, which have a lower coverage and higher dropout rates compared to semi-pastoralist communities.
- More information is required on why mothers/caregivers fail to bring their children for vaccination, as well as why they are unable to complete the full schedule of vaccinations.

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