

## Factors associated with complete immunization coverage in children aged 12-23 months in Ambo Woreda, Central Ethiopia

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**Background:** Vaccination is a proven tool in preventing and eradicating communicable diseases, but a considerable proportion of childhood morbidity and mortality in Ethiopia is due to vaccine preventable diseases. Immunization coverage in many parts of the country remains low despite the efforts to improve the services. In 2005, only 20% of the children were fully vaccinated and about 1 million children were unvaccinated in 2007. The objective of this study was to assess complete immunization coverage and its associated factors among children aged 12-23 months in Ambo woreda.

**Methods:** A cross-sectional community-based study was conducted in 8 rural and 2 urban kebeles during January- February, 2011. A modified WHO EPI cluster sampling method was used for sample selection. Data on 536 children aged 12-23 months from 536 representative households were collected using trained nurses. The data collectors assessed the vaccination status of the children based on vaccination cards or mother's verbal reports using a pre-tested structured questionnaire through house-to-house visits. Bivariate and multivariate logistic regression analyses were used to assess factors associated with immunization coverage.

**Results:** About 96% of the mothers heard about vaccination and vaccine preventable diseases and 79.5% knew the benefit of immunization. About 36% of children aged 12-23 months were fully vaccinated by card plus recall, but only 27.7% were fully vaccinated by card alone and 23.7% children were unvaccinated. Using multivariate logistic regression models, factors significantly associated with complete immunization were antenatal care follow-up (adjusted odds ratio(AOR)=2.4, 95% CI: 1.2-4.9), being born in the health facility (AOR=2.1, 95% CI: 1.3-3.4), mothers' knowledge about the age at which vaccination begins (AOR= 2.9, 95% CI: 1.9-4.6) and knowledge about the age at which vaccination completes (AOR=4.3, 95% CI: 2.3-8), whereas area of residence and mother's socio-demographic characteristics were not significantly associated with full immunization among children.

**Conclusion:** Complete immunization coverage among children aged 12-23 months remains low. Maternal health care utilization and knowledge of mothers about the age at which child begins and finishes vaccination are the main factors associated with complete immunization coverage. It is necessary that, local interventions should be strengthened to raising awareness of the community on the importance of immunization, antenatal care and institutional delivery.

**Keywords:** Complete immunization, immunization, Ambo.

### Biography

Belachew Etana has completed his M.P.H. at the age of 25 years from Addis Ababa University School of Public Health. He is Lecturer at Mekelle University, Department of Public Health. He has published one research and is currently conducting another research.

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