An assessment of child immunization coverage and its determinants in Sinana district, Southeast Ethiopia

Elias Legesse Negeri\textsuperscript{1} and Worku Dechassa Heyi\textsuperscript{2}
\textsuperscript{1}Addis Ababa University, Ethiopia
\textsuperscript{2}Wollega University, Ethiopia

\textbf{Background & Aim:} Immunization remains one of the most important public health interventions and cost effective strategies to reduce child mortality and morbidity associated with infectious diseases. It is estimated to avert between 2 and 3 million deaths each year worldwide. The objective of this study was to assess complete immunization coverage and its associated factors among children aged 12 to 23 months in Sinana district, Bale Zone, Southeast Ethiopia.

\textbf{Methods & Materials:} A cross-sectional community based survey was conducted in Sinana district from December 2012 to January 2013. A modified World Health Organization-Expanded Program on Immunization cluster sampling methods were used for households' election. A total 591 children aged 12 to 23 months and their mothers or caregivers were included in the study. Data were collected by using a pre-tested, interviewer administered questionnaire. Bivariate analysis was employed to identify factors associated with full immunization coverage and multiple logistic regression analysis was performed for those factors that showed statistically significant association in bivariate analysis and investigate independent predictors by controlling for possible confounders and significances of all tests were decided at p-value of 0.05.

\textbf{Results:} More than three fourth (76.8\%) of the children aged 12 to 23 months were fully vaccinated by card plus history. Factors significantly associated with full immunization were antenatal care follow up (AOR=3.7; 95% CI: 2.3, 5.9), being a farmer (AOR=1.9; 95% CI: 1.1, 3.1), being father with secondary and above educational level (AOR=3.1; 95% CI: 1.3, 7.4), having household family income greater than 1000 ETB or 52 USD (AOR=3.2; 95% CI: 1.4, 7.4), those whose average walking time from home to health facilities is less than an hour (AOR=3.1; 95% CI: 1.5, 6.3), those who had ever discussed about immunization with health extension workers (AOR=2.4, 95% CI: 1.3, 4.2) and mothers' with sufficient knowledge on immunization (AOR=2.5; 95% CI: 1.5,4.2).

\textbf{Conclusions:} Even though, immunization coverage of children in Sinana district gets improvement over national coverage, yet it is below governmental plan to increase the coverage i.e., 90%. Maternal health care utilization and knowledge of mother about vaccine and vaccine preventable diseases are the main factors associated with complete immunization coverage. It is vital that local programmatic intervention should be strengthened to upgrade awareness of the community on the importance of immunization, antenatal care and working on advancing economic status of community is the way to optimize children's immunization coverage.

sifankoo@gmail.com