

## Abstract

**Introduction:** In Uganda studies have shown that approximately 50% of children are fully vaccinated by the age of 1 year (12 months) with those in the urban more likely to be fully vaccinated than those in the rural settings. Studies in Africa demonstrate low immunization coverage among one year old infants and rural areas being more affected than the urban. This low coverage therefore affects the efforts of combating childhood mortality as a result of vaccine preventable diseases

**Objective:** The objective of this study was to determine the factors which influence vaccination coverage for children aged 12 months in Tororo district a comparison between the urban and the rural settings.

**Methodology:** This was a cross sectional study design that involved 350 respondents sampled from both rural and urban settings in the ratio of 1:1.

**Results:** 26% (95% CI: 21.5 – 30.9) of the infants in rural and 30.29% (95% CI: 25.5 – 35.4) of the infants in urban settings were fully vaccinated. In rural setting, full vaccination decreased with lack of parental medical attendance (AOR=0.03, 95%CI: 0.02 – 0.52, P=0.015), ANC attendance (AOR=0.1; 95%CI: 0.02-0.65, P=0.015) and immunization (AOR=0.11, 95%CI: 0.03-0.42, P=0.01). Besides, health worker rudeness (AOR=0.12, 95%CI: 0.025 – 0.56, P=0.07) and not being bothered (AOR=0.04, 95%CI: 0.06 – 0.28, P=0.001), parental perception that vaccines are unsafe (COR=0.06, 95%: 0.006-0.64, P=0.02) and failure to recommend vaccination completion upon development of side effects (AOR=0.06, 95%CI: 0.011-0.29, P=0.01) was associated with less likelihood of full infant vaccination. However in urban setting, lack of immunization card (AOR=0.1, 95%CI: 0.02-0.47, P=0.004), distance of greater than a kilometer to immunization point, lack of health worker communication on vaccine safety (AOR=31, 95%CI: 1.1-861, P=0.042) and parental non recommendation of vaccination completion upon development of vaccine side effects (AOR = 0.15, 95%CI: 0.24-0.93, P=0.042) were associated with full vaccination status of the child.

**Conclusion:** Health system related factors significantly influenced full vaccination of infants in both rural and urban settings. Mass health education would be critical in substantially improving immunization outcomes and there is an urgent need to address these low vaccination rates to combat vaccine related diseases and death.