Variation in Maternal Mortality in Sidama National Regional State, Southern Ethiopia: A Population Based Cross Sectional Household Survey

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Abstract: Introduction: Maternal mortality studies conducted at the national level do not provide the information needed for planning and monitoring health programs at lower administrative levels. The aim of this study was to measure maternal mortality, identify risk factors and district-level variations in Sidama National Regional State, southern Ethiopia. Methods: A cross sectional population-based survey was carried out in households where women reported pregnancy and birth outcomes in the past five years. The study was conducted in the Sidama National Regional State, southern Ethiopia, from July 2019 to May 2020. Multi-stage cluster sampling technique was employed. The outcome variable of the study was maternal mortality. Complex sample logistic regression analysis was applied to assess variables independently associated with maternal mortality. Results: We registered 10602 live births (LB) and 48 maternal deaths, yielding an overall maternal mortality ratio (MMR) of 419; 95% CI: 260-577 per 100,000 LB. Aroresa district had the highest MMR with 1142 (95% CI: 693-1591) per 100,000 LB. Leading causes of death were haemorrhage 21 (41%) and eclampsia 10 (27%). Thirty (59%) mothers died during labour, or within 24 hours after delivery, 25 (47%) died at home and 17 (38%) at a health facility. Mothers who did not have formal education had a higher risk of maternal death (AOR: 4.4; 95% CI: 1.7 - 11.0). The risk of maternal death was higher in districts with a low midwife-to-population ratio (AOR: 2.9; 95% CI: 1.0-8.9). Conclusion: The high maternal mortality with district-level variations in Sidama Region highlights the importance of improving obstetric care and employing targeted interventions in areas with high mortality rates. Due attention should be given to improving access to female education. Additional midwives have to be trained and deployed to improve maternal health services and consequently save the lives of mothers.

Keywords: maternal mortality variation, maternal death, Sidama, Ethiopia

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