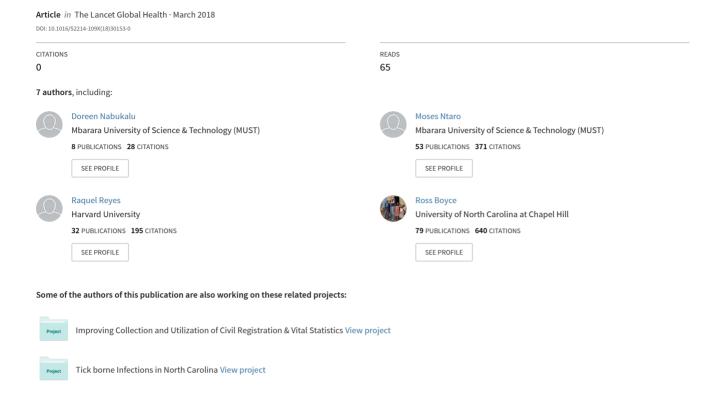# Using verbal autopsies to estimate under-5 mortality at household level in a rural area of southwestern Uganda: a cross-sectional study

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Using verbal autopsies to estimate under-5 mortality at household level in a rural area of southwestern Uganda: a cross-sectional study

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Abstract

Background In rural Uganda, paediatric deaths that occur outside of health facilities often go unnoticed by the health system, and information on their magnitude and causes remains limited. We aimed to assess the causes of mortality of children younger than 5 years at household level in Bugoye subcounty, Uganda.

Methods This cross-sectional study was done in all 35 villages of Bugoye subcounty in March and April, 2017. Community health workers collected data on all deaths in all households of the subcounty that occurred between Jan 1, 2016, and Jan 1, 2017, using 2014 WHO standardised verbal autopsy (VA) questionnaires. Causes of death were determined using the InterVA-4 algorithm and cause-specific mortality proportions were calculated using STATA.

Findings The VA survey identified 77 deaths among children younger than 5 years that occurred during the study period. Nearly half of these deaths occurred among neonates (n=38 [49%]), followed by ages 1–11 months (n=21 [27%]), and 1–4 years (n=18 [23%]). Among neonates, mortality most commonly occurred in the first 24 h (n=17 [22%]), followed by 8–28 days (n=10 [13%]). The five leading causes of death for all ages were malaria (19%), prematurity (19%), neonatal pneumonia (16%), HIV/AIDS-related illnesses (10%), and acute respiratory tract infections including pneumonia (9%). Malaria was the dominant cause of death for those aged 1–11 months and 1–4 years, accounting for 44% and 33%, respectively. Prematurity and neonatal pneumonia were the leading causes of death among neonates. Most deaths (81%) captured from the VAs could not be traced from the records of the reported health facilities in the district.

Interpretation There is a considerable discrepancy between mortality captured by the district and mortality in the communities. Interventions that address common causes of mortality for children younger than 5 years need to be strengthened and extended to rural health facilities. Community death registration systems are lacking and in need of revitalisation. VA surveys could be conducted by district health authorities periodically to collect mortality data in the rural and hard-to-reach areas.

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Declaration of interests
We declare no competing interests.