



# Causes and delays contributing to newborn deaths in Eastern Uganda



Peter Waiswa<sup>1,2</sup>, Karin Källander<sup>1,2</sup>, Stefan Peterson<sup>1,2</sup>, Göran Tomson<sup>2</sup>, George Pariyo<sup>1</sup>



<sup>1</sup> Makerere University school of Public Health, Uganda  
<sup>2</sup> IHCAR, Department of Public Health Sciences, Karolinska Institutet, Sweden



## Conclusions and policy implications

- Many neonates could be saved through **supervised deliveries** and **maintenance of hygiene** at birth and neonatal period
- Deaths from neonatal sepsis could be avoided by **early case detection** and **access to antibiotic treatment**.
- Health worker **competence** and **care** delivered at health facilities need to be improved.
- **Care for pre-terms need to be strengthened** in health facilities and in the community.
- The feasibility and impact of **training community health workers** in essential newborn care, and in assessing and referring babies during post-partum visits should be tested.
- Methods for **quantifying care seeking delays** leading up to death need to be developed and validated in order to improve programming

## Introduction

More than 4 million newborn babies die each year - 98% in low-income countries.

Studies in Asia and South America show that neonatal mortality can be reduced through community based interventions, but these have not been adapted to scalable intervention packages for Sub Saharan Africa where the culture, health system and policy environment is different.

## Study objectives

To establish the likely causes of newborn death and the contributing factors leading up to death in order to identify modifiable factors that can be addressed in a community based intervention for improved newborn health and survival.

## Methods

For all newborn deaths (n=53) that occurred between Nov-05 to Oct-07 a verbal and social autopsy was carried out to establish likely causes of death, care seeking and treatment barriers preceding death.

Symptoms and signs were examined and classified using a hierarchical approach developed by Baqui et al.

The maternal mortality 3 delays model was adapted to newborn deaths and used by 3 physicians to identify contributors and modifiable factors leading to death. Still births were excluded.

## Results

Of all 53 neonatal deaths, 47.2% occurred on day one, 85% in the first week, and only 15% after the first week after birth (figure 1).

Neonatal sepsis was the leading cause of death (39.6%), followed by preterm birth (24.5%) and asphyxia (24.5%). Neonatal tetanus and congenital abnormalities dominated among the other causes (figure 2).

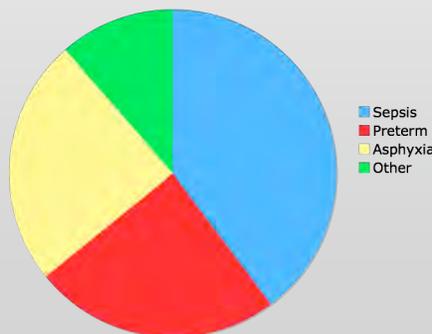


Figure 2. Main causes of deaths in newborns according to hierarchical model by Baqui et al.

Delay in deciding to seek care outside the home was the greatest contributor to death (56.6%).



Delay in accessing care after having decided to go to a facility contributed to 13.2% of deaths.

Delay at the health facility was attributed to 30.2% of deaths.



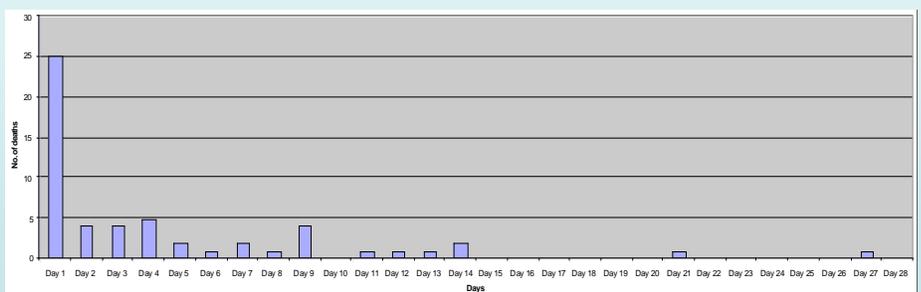
## Discussion

Newborns died on the first day of life mostly from asphyxia and complications related to low birth weight.

For children dying in the first week of life, most die of sepsis due to poor delivery hygiene and caretakers' delay to seek care outside the home.

While health care access barriers were not major contributors to mortality, delay at the health facility was attributed to every third death.

Figure 1. Neonatal death by day of death



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