

Trends and Characterization of Neonatal Deaths at County Referral Hospital Nyeri, 2012–2014

Wachira E. W¹, Githuku JM¹, Muthigani M², Z Gura¹

1. Kenya FELTP
2. Reproductive Maternal Health Services Unit

Background: Of the 8.8 million deaths in children under five years, 41% occur in neonates, with the highest burden in Sub Saharan Africa (98%). In Kenya, only a marginal reduction in neonatal mortality, from 33 deaths /1000 live births in 2003 and 31/1000 in 2008 to 22/1000 in 2014 has been observed nationally. No studies have been done in Nyeri County to quantify the burden of mortality. Hence the aim of our study was to determine trends and characterize the neonatal deaths.

Methods: We performed a retrospective review of neonatal deaths during year 2012 to 2014 using data obtained from neonatal death registers. Cases were defined as the death of any infant during the first 28 days of life. Variables assessed during descriptive analysis were: Date of birth, hospital admission, and death, diagnosis, delivery mode, gestation, birth weight. The facility annual mortality estimates were augmented by data from the records department giving total numbers of live births between 2012 to 2013. To calculate neonatal mortality rate, we divided neonatal deaths by total live births in the year expressed per 1000 live births.

Results: From 2012 to 2014 there were 308 neonatal deaths recorded; Males represented (170) 57% of neonates. Median duration of admission was 24 hours with a range of 0–624 hours. Major causes of death in the facility were: - prematurity accounted for (153) 50% of all deaths, birth asphyxia caused 96 (31%) deaths, neonatal sepsis occurred in 28 (9%) deaths, and congenital malformations occurred in 18 (6%) deaths, and the remaining other minor conditions. Deaths occurring within the first seven days of life (early neonatal period) accounted for 187 (60%) of all deaths. Skilled birth attendant were 295 (96%) of the deliveries while there were (196) 65% spontaneous vertex deliveries. No decline in trend- 26/1000 in 2012, 28/1000 in 2013 and 26/1000 in 2014.

Conclusion: Neonatal mortality remains higher than the national average of 22/1000 live births. As Kenya aims to achieve the SGDs target of 12/ 1000 live births, Nyeri county department of health should identify and manage causes of preterm births as a major contributor to neonatal mortality in the facility. Further, in order to mitigate neonatal deaths, facility should initiate neonatal death notification using standard tools as a basis for surveillance.

KEYWORDS; Sustainable Development Goals (SGDs), Neonatal death