

Preterm Neonatal Survival and Mortality in Northern Ethiopia

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Introduction

Preterm birth is defined by the World Health Organization (WHO) as babies born alive before the 37th week of pregnancy. Every year, 15 million babies are born prematurely around the world. Preterm neonates have a higher mortality rate than term neonates. Prematurity is the leading cause of death among children under the age of five worldwide. As a result, preterm neonatal mortality has remained a major public health concern [1].

Description

According to a 2014 systematic review of global preterm births, regional preterm birth rates ranged from 13.4 percent in North Africa to 8.7 percent in Europe. Asian and Sub-Saharan African countries accounted for 81.1 percent of all preterm births globally. The review also revealed that the magnitude of preterm mortality is increasing over time, regardless of geographic or economic disparities between nations. Improvements in pregnancy and delivery care have increased foetus survival to delivery and attempted resuscitation at lower gestational ages, but with a higher risk of mortality among these more preterm neonates [2]. For example, from 2001 to 2012, the incidence of preterm birth in Hubei Province, China, increased from 56.7 to 105.2 per 1000 live births.

Preterm neonatal deaths are commonly predicted by gestational age, birth weight, a lower Apgar score, respiratory distress syndrome, sepsis, pneumonia, meningitis, and asphyxia. Ethiopia was one of the top ten countries in the world in terms of preterm births in 2014. Every year, 320,000 babies are born prematurely in the United States. Prematurity kills one out of every ten babies today. Similarly, studies conducted in Ethiopia estimate that preterm mortality ranges between 8.1 and 28.8 percent. Preterm deaths have increased in recent years, and the Ethiopian government has made reducing preterm mortality a priority [3].

Even though neonatal mortality has decreased from 49 deaths per 1000 live births in 2005 to 30 deaths per 1000 births in 2019, the neonatal period still accounts for 42 percent of all under-five deaths. Similarly, according to the Ethiopia Demographic and Health Survey (EDHS) (2016) report, one out of every 35 under-five children dies during the neonatal period. As a result, in 2005, the Ethiopian Ministry of Health developed the first comprehensive National Child Survival Strategy (2005–2015), which was implemented as part of the third and fourth Health Sector Development Program (HSDP) cycles. The country is currently revising child survival and the long-term strategy (2015–2020), with the goal of eliminating all preventable child deaths by 2030 [4].

As part of the strategy, studies on survival status and predictors of preterm neonatal death have been conducted in various regions of the country. A study at the University of Gondar Comprehensive Specialized Hospital, for example, found that 96.71 percent of preterm neonates survived at the end of the first day of admission to the neonatal intensive care unit (NICU). Home delivery, hyaline membrane disease, gestational age, cry immediately at birth, kangaroo mother care, presence of jaundice, and hypoglycemia at admission were found to be significant predictors of time to death for preterm neonates in the study [5].

Conclusion

Despite evidence identifying predictors of preterm neonatal survival in Jimma and Gondar, little is known about Ethiopia's other regions. As a result, addressing the lack of data on predictors of preterm neonatal survival in ACSH, Ethiopia's largest teaching and referral hospital, will aid policymakers and other concerned bodies in planning and resource allocation for the region. The goal of this study was to look at the predictors of preterm neonatal survival in the ACSH NICU in northern Ethiopia.

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How to cite this article: Takahashi, Hiroko. "Preterm Neonatal Survival and Mortality in Northern Ethiopia." *Adv Practice Nurs* 7 (2022): 244.

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Received 05 January, 2022, Manuscript No: apn-22-54605; **Editor assigned:** 07 January, 2022, PreQC No: P-54605; **Reviewed:** 10 January, 2022, QC No: Q-54605; **Revised:** 15 January, 2022, Manuscript No: R-54605; **Published:** 20 January, 2022, DOI: 10.4172/apn.2022.07.244