

Newborn Survival in Nigeria

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INTRODUCTION

Neonatal period represents a crucial period in the survival of a newborn child.¹ Survival of these babies is causally related to quality of antenatal care rendered to the prospective mother, level of delivery practice and post delivery care, that is, peri-natal care offered to the newborn.¹⁻¹¹

EPIDEMIOLOGY

Globally, 3.7 million children died within the neonatal period in 2004 with 25-45% of deaths occurring within the first day after in 2004.² Over 50% of the world's infant mortality occurs in the developing and tropical countries and is related to the prevalent high neonatal mortality rate.¹ A similar trend was observed in maternal mortality in the sub-Saharan region with mortality rate of 1,100 per 100,000 live births.² The neonatal mortality rate in Nigeria is 47/1000 live births with national fertility rate of 5.7%³ and infant mortality rate at 97/1000 live births.² 49% of global deaths were reported to have occurred in India, Nigeria, democratic Republic of Congo, China and Pakistan in 2008.⁴

CAUSES OF NEONATAL MORBIDITY AND MORTALITY

High mortality was reported in a newborn specialty unit in Benin, southern Nigeria, 20.3% with neonatal sepsis, severe birth asphyxia, prematurity and neonatal tetanus as main morbidities.⁵ Maternal morbidity and peri-natal mortality rates in Abakaliki, Ebonyi state, south-eastern Nigeria were 3,392 per 100,000 and 86.3 per 1000 live births respectively.⁶ Neonatal mortality was reported in south-western Nigeria to be 12.6% in babies delivered outside the hospital and 6.3% in babies delivered within the hospital, with major complications found in babies delivered outside the hospital setting which include hypothermia, peri-natal asphyxia, haemorrhage, cephalhematoma, prematurity and neonatal tetanus.⁷ A similar study in Calabar, southern Nigeria reported an overall mortality of 19.3% largely contributed by outside hospital-born babies.⁸ Major morbidities implicated in the death of out-born babies were infections (neonatal tetanus 20.9% and septicaemia 19.6%), birth asphyxia 23.3% and low birth weight 19.0%. Most deaths (70.0%) occurred within the first 7 days of life. Majority of the

deaths occurred within the first 24 hours.⁸ Morbidities reported in the hospital-born babies were infections 27.4%, jaundice 21.0% and low birth weight 18.4%.⁸ Prematurity accounted for 18.0% deaths in the Special Care Baby Unit in Nnewi, Southern Nigeria with mortality associated events being respiratory distress syndrome 40.0%, severe birth asphyxia 33.4%, neonatal sepsis 13.3%, severe neonatal jaundice 6.7%, severe anaemia 3.3% and haemorrhagic disease of newborn 3.3%.¹⁰ Another study in Abuja, Northern Nigeria¹¹ reported 13.3% deaths over an 18-month period, having similar morbidities with findings in previous studies.⁵⁻¹⁰ The causes of death were severe birth asphyxia 21.7%, low birth weight 20.1%, neonatal meningitis 15.4%, and neonatal sepsis 11.2%, which are all preventable; congenital anomaly accounted for 20.0% of deaths and are not preventable.¹¹ The leading causes of admissions were low birth weight 32.7%, neonatal sepsis 19.1%, severe birth asphyxia 12.7%, and neonatal jaundice 8.7%.¹¹ Most, 71.2% of mortality occurred within the first 72 hours of admission,¹¹ and 5.7% of these deaths occurred in babies of women of low socioeconomic class. It is of utmost importance to reiterate that most of these deaths are preventable.¹¹ Adebami et al¹² implicated foetal malnutrition, (18.8%) as a common problem in small for age babies. Other common morbidities found in these infants are severe birth asphyxia, respiratory distress, meconium aspiration, hypoglycaemia, high haematocrit and hypoalbuminaemia. Infants with foetal malnutrition have higher mortality and neurologic sequelae in the first month.¹²

RISK FACTORS

It is obvious that over 50% of the causes of neonatal deaths are preventable.¹¹ Most high risk deliveries such as eclampsia, teenage pregnancy and grandmultiparous pregnancies⁶ are likewise avoidable via ante-natal care utilization by prospective mothers and prompt intervention.¹¹⁻¹³ Unbooked mothers are nine times more likely to have asphyxiated babies and they have thirteen times more likelihood of dying than mothers who had proper antenatal care.¹³ Main determinants of poor neonatal outcome are low birth weight, delivery outside of a health facility, lack of ante-natal care, and deliveries conducted by traditional birth attendants.¹⁴ Socio-economic influence has been implicated in the neonatal outcome in a study done in Osun State, Nigeria.¹⁵ It also highlighted the strong influence of the educational level of mother and economic status of family on the use of maternal health services.¹⁵

CONCLUSION

It is obvious that these neonatal deaths can be avoided to a large extent. Maternal and newborn health services (peri-natal care, newborn resuscitation and emergency obstetric care) must be strengthened at all levels of healthcare delivery. Adequate utilization of family planning services, training and re-training of skilled birth attendants are essential elements in improving neonatal survival. Proper antenatal care is also pivotal in the struggle for improved neonatal survival, especially in resource poor countries. Prompt referral of these newborn babies should be encouraged once indicated.

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