

# *Trends in mortality and factors associated with mortality and morbidity amongst hospitalized low birth weight infants at a tertiary level hospital in Cameroon, 2001-2005*

**Student Name: Alison Beriliy Wiyeh**

**Supervisor: Tonya Esterhuizen**

**Background:** Babies born with a birth weight of less than 2500grams have a low birth weight (LBW) and death amongst them accounts for 80% of all neonatal deaths. At the endpoint of the Millennium Development Goals (MDGs), we evaluate the progress made by Laquintinie hospital, Cameroon in reducing mortality amongst low-birth-weight babies, and identify factors associated with their morbidity and mortality.

**Methods:** We estimated the mortality rates amongst LBW infants from 2001 to 2015, using a retrospective cohort study. Hospital records from 2001 to 2014, and the medical files for 2015 of LBW infants hospitalized in this hospital were used to evaluate their outcomes and factors associated with their morbidity and mortality.

**Findings:** The overall mortality rate progressively increased from 19.9% in 2001 to 50.7% in 2015, with the greatest increase

observed amongst extremely low birth weight infants (ELBW). In time series analysis, ELBW infants Beta 0.49 (95% CI 0.12 - 0.87) and incremental year of birth Beta 1.4 (95% CI 1.04 - 1.81) accounted for the increase in mortality rate. ELBW (OR: 4.3, 95% CI ), VLBW (OR: 2.7, 95% CI ) and apgar <7 at 5 minutes (OR: 25, P=0.022) were risk factors for respiratory morbidity. Apgar <7 at 5 minutes (OR: 5.5, P<0.001) was a risk factor for neurological morbidity. Factors associated with mortality were VLBW (OR: 4.7 P<0.001), respiratory distress (OR: 9.2, P<0.001), apnoea (OR: 4.2, P=0.004) and gastrointestinal haemorrhage (OR: 5.839, P<0.001).

**Interpretation:** The mortality rates amongst low-birth-weight infants hospitalized at Laquintinie Hospital, increased in the period 2001-2015, and negatively impacted its achievement of MDG 4