

**Etil Tom**
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## Biography

**Etil Tom,** is a statistician and development planner with extensive experience in data analysis, strategic planning, and public administration. As District Planner at Otuke District Local Government, he leads the preparation of development plans, budgets, and work plans while overseeing project monitoring, evaluation, and data-driven decision-making. He holds a Master of Statistics and a Bachelor of Science in Statistics and Economics from Makerere University, along with a Postgraduate Diploma in Project Planning and Management from the Uganda Management Institute. Committed to sustainable development, Etil applies analytical expertise and strategic insight to improve governance, resource utilization, and community development outcomes.

# Risk factors associated with preterm birth among mothers delivered at Lira Regional Referral Hospital

**Abstract**

**Introduction:** The World Health Organization defines Preterm Birth (PTB) as "a live birth taking place before the expected 37 weeks of gestation". Annually, approximately 15 million infants are born prematurely, constituting significantly to infant mortality during the initial four weeks of life, responsible for 40% of deaths among children under the age of five. Evidently, preterm deliveries have contributed to 46% of admissions to the neonatal intensive care unit at Lira Regional Referral Hospital (LRRH) over the past three years. Paradoxically, while the prevalence of preterm births remains high, there is a lack of documented information regarding the underlying risk factors. Consequently, the primary objective of this study was to assess the potential risk factors associated with preterm birth at LRRH.

**Methods:** An analytical cross-sectional research was undertaken at LRRH, employing a quantitative methodology. The study utilized secondary data obtained from maternal medical records of deliveries that occurred at the facility between April 2020 and July 2021. The collected data underwent analysis using STATA version 17 software. A Logistic regression model was applied to identify predictors of PTB, yielding adjusted odds ratios (AOR) alongside 95% confidence intervals (CI). The significance level was set at $p < 0.05$ to establish statistical significance. Assessments for multicollinearity and model fitness were conducted using the Variance Inflation Factor and linktest respectively.

**Results:** The prevalence of preterm delivery among mothers who gave birth at LRRH stood at 35.8%. The outcomes of logistic regression analysis revealed that maternal employment status had a significant association with preterm birth (AOR = 0.657, p = 0.037, 95%CI: 0.443–0.975); having a baby with low birth weight (AOR = 0.228, $p < 0.001$, 95% CI: 0.099–0.527) and experiencing preeclampsia (AOR = 0.142, $p < 0.001$, 95% CI: 0.088–0.229) were also identified as significant predictors of preterm birth in the study.

**Conclusions:** The occurrence of preterm delivery is significantly higher (35.8%) among mothers delivered at LRRH when compared to the national average (13.6%). The prevalence of preterm birth was linked to factors such as employment status, delivery of low birth weight infants, and the presence of preeclampsia. Consequently, the research recommended that the Ministry of Health should evaluate the present state of readiness within the healthcare system to effectively handle

cases of preterm birth both within medical facilities and the community. Also the Ministry of Gender, Labour, and Social Development should leverage Labor Officers to implement and uphold the regulations stipulated in the Employment Act and Labor Laws.