

Determinants of Perinatal Outcomes Among Women Seeking Antenatal Care in Selected Kisii County Level Four Health Facilities in the Context of Free Maternity Care.

ABSTRACT

Globally, 830 women die daily of preventable pregnancy-related complications; 90% of these mortalities are from developing countries in Sub-Saharan Africa. Mitigating against these deaths continue to be a challenge especially in developing countries Kenya included where only a few countries have implemented the Abuja declaration to allocate at least 15% of the national budget to their health sector. Despite this, the Kenya government adopted universal health care for maternity services in 2013 to reduce the Maternal Mortality Rate (MMR) which was then at 488/100,000 live births. Despite continuous variation in scope of “free maternity” care, it has not been established whether there are differences in perinatal outcomes at public health facilities that offer free maternity services against those at non-public health facilities that charge for services. The study sought to determine client-level factors, facility-level factors and the relationship between client and facility level factors that affect perinatal outcomes among women attending public and non public health facilities in *Kisii* County. The study used a prospective cohort approach at comparable level 4 facilities in Kisii County including two public (Oresi Health Centre and Kenyena Hospital) and two non-public (Christamarianne-CMMH and Tabaka Mission Hospitals). At the start of the study, 365 mothers were recruited through stratified sampling for follow up from 16 weeks gestation until 2 weeks post delivery. By the end of the study, 287 mothers (187 from public and 100 from non-public facilities) had been followed up to 2 weeks after delivery. Mothers lost to follow-up after first visit were not included in data analysis. At baseline socio-demographic and targeted study variables were measured, at the 2nd and 3rd follow up visits, targeted study variables were monitored. Chi-square tests were used to determine differences between client/facility factors and perinatal outcomes; Paired t and McNemar’s tests were used to compare relative means of different factors at different ANC visits for parametric and non-parametric data respectively while Logistic Regression tests were used to measure odds of a normal or abnormal perinatal outcome versus specific study indicators. At the end of the follow-up 31/287 women (11% cumulative incidence in a period of 6 months) developed abnormal perinatal outcomes such preterm deliveries, obstructed labour and miscarriages among others. Overall, no

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statistically significant differences were noted in perinatal outcomes between public and non-public facilities. However, higher maternal BMI was significantly associated with abnormal perinatal outcome ($\chi^2= 8.900$, d.f =3, $p=0.031$) while higher parity was associated with normal perinatal outcome ($\chi^2= 13.232$, d.f =4, $p=0.039$). A significant relationship existed between a mother’s knowledge of pregnancy related issues and the baby’s weight ($t=-67.8$ d.f. 213 $p<0.001$). Mothers who were accompanied by their spouses at each visit to the ANC clinic had a 26% higher chance of normal delivery compared to mothers who were unaccompanied for all the 3 ANC visits (OR 0.26 95% CI 0.08-0.792 $p=0.02$). Individuals who delivered at facilities with low midwife-client ratio had a 5% higher likelihood of having a normal perinatal outcome as compared to those delivering in facilities with high midwives staffing ratios (OR=0.05, 95% CI 0.046-0.055, $p=0.006$). The study concluded that perinatal outcomes were not different at either public or non-public facilities. The perinatal outcomes between individuals who paid and those who did not pay for ANC services either at the public or non-public health facilities were not different. The study recommends that under free maternity care settings, health education of mothers, male involvement and staffing of facilities with more skilled midwives needs to be strengthened for better perinatal outcomes to be increased