

**\*\*\* ANALYSIS NOT CONCLUDED, PLEASE DO NOT CITE WITHOUT AUTHORS' PERMISSION \*\*\***

**Background:** Family planning is generally acknowledged as an important component of the reproductive health agenda and a necessity in all programmes and policies geared towards the realisation of safe motherhood. Several studies have established that most maternal deaths occur in the postpartum period. It is widely recognised contraception can save many lives by helping women to space their births at least two years apart, thus avoiding the risks of unwanted pregnancies during the postpartum period. At the recently concluded London Summit on Family Planning, a special attention was paid to postpartum family planning (PPFP) through the release of a “Statement for Collective Action for Postpartum Family Planning”, underlining the importance of the subject. The statement recognised PPFP as the prevention of unintended and closely spaced pregnancies through the first 12 months following childbirth. It further emphasized that not only do pregnancies during this period hold the greatest risk for mother and baby, the first 12 months after childbirth also present the greatest opportunities in terms of number of contacts with health care services. This paper therefore aims to contribute to existing knowledge on the factors affecting the adoption of PPFP, with special emphasis on examining how influential the women’s contact with maternal health services (antenatal care, delivery in a health facility and postnatal care) had been on adoption of contraception in the postpartum period.

**Data:** The data for this research is from the 2008 Nigeria Demographic and Health Surveys (NDHS). The survey is a nationally representative sample of 36, 800 households. All women of reproductive age (15 – 49 years) in these households were interviewed and all men age 15-59 in half of the sampled households were interviewed. This analysis uses the women’s

individual recode dataset. Working with the original women's dataset comprising 33,385 women age 15 – 49 years, women whose last birth was more than 12 months at the date of interview were excluded from the sample, as they did not meet the criteria of inclusion. Also, women whose last delivery occurred in the same month they were interviewed were excluded on the assumption that they were less likely to be at risk of pregnancy due to postpartum amenorrhea, hence, not in immediate need of contraception.

### **Measurements**

The outcome variable for the study is current use of contraception. This is however disaggregated into two components: current use of any contraceptive method and current use of modern contraceptive method. Modern method includes pill, IUD, injections, condom, sterilization, norplant and lactational amenorrhea while the any contraceptive method, in addition to the modern methods, also includes users of periodic abstinence, withdrawal and other traditional methods as contraceptive users. Three variables indicating use of maternal health care are the main independent variables. These are antenatal care from a skilled provider, delivery in a health facility, and postnatal care within 41 days of delivery. The other key component of maternal health care, assisted delivery by a skilled provider, was not included as an independent variable because it is assumed that these subset will not be significant different from those who delivered in a health facility.

### **Results**

*Current age and age at last delivery:* At the time of the survey, most of the postpartum women (70%) were between ages 20-34 years, a tenth were teenagers while the remaining 20% were of ages 35-49 years. However, examining the age of the women when they had their last birth, the findings show that 14% of the women were teenagers (below age 20 years

at date of last delivery) and about 16% were 35 years or older, indicating that almost a third (30%) were high risk births (too young or too old). Most of the women however delivered between ages 20-24.

*Number of living children and birth order:* about 21% of the women had no surviving child, 60% had 1-3 living children while almost 40% had four or more living children at the time of the survey. *Use of maternal health services:* the study examined the proportion of women that used maternal health services with regards to their last pregnancy and childbirth. The findings showed that more than half of the women (58%) received antenatal care from a skilled provider, however, only 36% delivered in a health facility and about 41% received postnatal care.

*Use of contraception:* Only 14% of the women were using any form of contraception while the proportion using modern methods was only 11%, while the proportion of the women using traditional methods was 3%. The study also examined the months at which women initiated the use of contraception after delivery. It was found that 9% of the women who use contraception started the method during the same month they gave birth, more than half (54%) of the contraceptive users started using contraceptive within 1-3 months of childbirth while a quarter (26%) commenced using contraception within 4-6 months of delivery. The remaining 11%, began contraceptive use more than six months after delivery.

The adjusted odds ratios from the multivariate regression of the three key independent variables (ANC from a skilled provider, place of delivery and postnatal care) on the independent variable (current contraceptive use), while controlling for the effects of highest educational level, wealth index, type of place of residence, number of living children, marital

status and region of residence in the model. The odds ratios indicate that women who received ANC from a skilled provider are more likely to use contraception in the postpartum period compared to those who did not. Similarly, women who delivered in a health facility, or who had a postnatal check-up within 41 days of delivery are more likely to use contraception in the postpartum period compared to women who did not deliver in a health facility or receive postnatal care within 41 days of delivery. The finding is however only significant for women who received postnatal care.

On current contraceptive use and age, the findings show that age of the women is not a significant predictor of postpartum contraceptive use.

Contraception and education: the adjusted odds ratios from the logistic regression model clearly show a significant and consistently increasing influence of education on postpartum contraception. For instance, relative to those with no education (reference category), the likelihood of postpartum contraceptive use increases by about one and a half times among women with primary level of education, while the likelihood of postpartum contraceptive use respectively doubles for women with secondary level education and higher education.

Contraception and Wealth Index: the assessment of the association between household wealth status, measured by the wealth index, and postpartum contraceptive use indicates that the odds ratio of using contraception postpartum is significant only for women in the wealthiest quintile. Relative to the poorest wealth quintile, the odds ratio of postpartum contraceptive use was 2.3 times higher among women in the richest quintile. While the odds ratios for the other quintiles, relative to the poorest quintile, show a consistent increase in the likelihood of

postpartum contraceptive use, none of the values for these other ages is statistically significant.

Other significant predictors of postpartum contraceptive use include type of place of residence where the adjusted odds ratio of postpartum contraception suggests that women in the rural areas are significantly less likely to use contraception in the postpartum period relative to their urban counterparts. Also, the odds ratios of using contraception tends to increase with the number of living children. Relative to women with no living children, the odds ratio of postpartum contraception among women with 1-3 living children is 2½ times higher and 3.5 times higher among women with 4 or more living children. Finally, the multivariate results show that the region of residence is a significant predictor of postpartum contraceptive use. The generally observable pattern is the higher probability of postpartum contraception in each of the southern regions relative to the north central region (reference) and the decreasing likelihood of postpartum contraception in the other two northern regions, relative to the north central (reference).

A similar multivariate logistic model was run with the dependent variable changed from use of (any) contraception to the use of modern contraception. The outcome was similar but with a couple of exceptions: none of the three main independent variables (ANC from a skilled provider, delivery in a health facility, and postnatal care within 41 days of delivery) was a significant predictor of postpartum contraceptive use; also, living in the south east of the country ceased to significantly predict contraceptive use and living in the north east region was no longer a significant predictor of non-use of contraception.