

# **Examining influence of continuum of maternal health care services on postpartum family planning use in India: Evidence from National Family Health Survey 2014-15**

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## **Extended Abstract**

### **Background**

After ‘London Summit on Family Planning’, Government of India adopted RMNCH+A (Reproductive, Maternal, Newborn and Child Health and Adolescents) program. Since then, the country has accelerated its interventions to focus on the rollout of new contraceptives, focus on quality in family planning, revitalizing Postpartum and Post Abortion Family Planning services, enhanced focus on male participation, and community based schemes through ASHAs, streamlining and strengthening commodity security, Public Private Partnership etc.

Postpartum family planning (PPFP) is the prevention of unintended and closely spaced pregnancies through the first 12 months following child birth. PPFP reduces both child and maternal mortality because it improves healthy timing and spacing of future pregnancies and limits unwanted pregnancies for those who have completed their families. By integrating PPFP into maternal and child health services, health providers can increase the likelihood that every new mother will leave the clinic having made an informed choice about family planning. A study by Zerai and Tsui (2001) showed that, after controlling for effects of living in high health service contact areas and for various demographic and background factors, prior use of prenatal care had a strong influence on subsequent use of modern contraception in Bolivia, Egypt, and Thailand. Similarly, a positive association between intensity of MCH service use and subsequent contraceptive use was found in a study of Bolivia, Guatemala, Indonesia, Morocco, and Tanzania (Hotchkiss et al. 2005). Significant associations between the service intensity of ANC and PNC combined, as well as ANC only, and postpartum modern contraceptive use were also found in Kenya and Zambia, indicating that use of such services would be an opportunity to promote modern contraceptives use (Do and Hotchkiss 2011). Aside from maternal health services, other factors influence the use of family planning postpartum. For example, Region, education, household wealth, and exposure to family planning messages are significant predictors of modern contraceptive use in the postpartum period in Nigeria (Akinlo, Bisiriyu, and Esimai 2013). Likewise, a multi-country study based on 43 DHS surveys showed a strong correlation between use of maternal health care and use of postpartum family planning, particularly by women’s urban

location, household wealth, education, achievement of desired family size, and current fertility desires (Winfrey and Rakesh 2014). Their result also showed that in most of the countries postpartum contraceptive use was not strongly related to women's age, parity, and whether the last birth was wanted. Husband's presence or absence in the specified postpartum period could have a direct influence on use of a modern family planning method.

In present study, we want to analyze the influence of integration of maternal health services and family planning services on time to start contraceptive use in postpartum period after controlling for socioeconomic, demographic, and other regional factors.

### **Research questions**

The objectives of this study were to:

- Determine the proportion of women initiating use of modern contraception within 12 months after childbirth.
- Analyze the differentials in the use of modern contraception within 12 months of childbirth by selected socioeconomic and demographic factors.
- Examine the role of continuum of maternal health care services on the initiating the use of modern contraception within 12 months after childbirth.

### **Materials & Methods**

The study used data from the 2014-15 National Family Health Survey (NFHS-4). The 2014-15 NFHS was a nationally representative cross-sectional survey conducted for the fourth round in India as part of The DHS Program.

The study sample for NFHS-4 is based on stratified two stage sample of households. It produce indicators at the district, state/union territory (UT), and national levels. NFHS provide updates and evidence of health and nutrition indicators, including HIV prevalence. Total 699,686 eligible women of age-group 15-49 and 112,122 eligible men of age-group 15-54 were successfully interviewed. This analysis used only the information from Woman's questionnaire.

The outcome variable for the present study was the use of postpartum family planning (PPFP) constructed using calendar information on women who had most recent live birth during one to five years (12-59 months) before the survey. There is no left censoring in our sample however, not

all women practiced contraception, so those who did not were right-censored at 12 months. Applying these selection criteria, the final study sample was 140,893 women age 15-49. Kaplan Meier curves and Log Rank test were employed to present our results. Finally, Cox regression was used to calculate the hazard ratios.

### **Preliminary findings**

Within 12 months following the last birth, nearly 34% of women started using a modern method of family planning and around 9% women started using traditional method of family planning. 10% of women had started using modern contraceptives by the end of the first month after childbirth. The proportion of users shows a gradual increase in the level of modern contraceptive use over the months, reaching 33% after 6 months, 40% after 9 months, and 43% after 12 months. The results from log-rank test shows that survival functions for family planning use postpartum are significantly different for various categories of selected variables (media exposure to family planning, maternal age at last birth, number of antenatal care (ANC) visit, ANC visit during last 3 months of pregnancy, place of delivery of last birth, assistance during delivery of last birth, health visit in last 3 months, parity on last birth, Whether last birth wanted? and socio-economic and demographic variables). Based on score of several questions on maternal health care services and family planning services mentioned above, we made a new variable (MCH\_FP\_utilization) depicting combined utilization of maternal health care services and family planning services. In multivariate model, when all potential confounding variables were included in the analysis, the instantaneous risk of starting contraceptive during postpartum period was significantly increased by 1.50 times and 2.00 times ( $p < 0.01$ ) among women who fall in moderate and high utilization of maternal and family planning services respectively compared to women who fall in low utilization category.

### **Knowledge contribution:**

The present study was designed to examine the influence of integration of maternal and family planning services on postpartum family planning use in the Indian context. The present study considered ANC, delivery facility and post-delivery health visits and their integration with family planning services together. The study presented several important determinants of postpartum family planning use within 12 months of the last childbirth. Women' place of residence, higher household wealth and education, exposure to family planning message on any media, presence of

son at home, parity and preference for not having another child are some of the important factors associated with higher chances of using contraception within 12 months of the last childbirth. It is recommended that to maintain good reproductive health among Indian women, advocacy is essential to promote maternal health care services continuously, as soon as the pregnancy is noticed. Though these services are widely spread across the country, even at the grass roots level, current services should be convenient and ensure that all women can have access to and receive all three components of maternal health care service and family planning info at the same place. The findings of this study reinforced the need for information and counselling of women to remain in contact with health personnel from the beginning of pregnancy through the postpartum period.

### **References:**

Some of the important references are given here.

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