

## GYNECOLOGY

# Contraceptive counseling and postpartum contraceptive use

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**OBJECTIVE:** The objective of the study was to examine the associations between prenatal and postpartum contraceptive counseling and postpartum contraceptive use.

**STUDY DESIGN:** The Pregnancy Risk Assessment Monitoring System 2004–2008 data were analyzed from Missouri, New York state, and New York City ( $n = 9536$ ). We used multivariable logistic regression to assess the associations between prenatal and postpartum contraceptive counseling and postpartum contraceptive use, defined as any method and more effective methods (sterilization, intrauterine device, or hormonal methods).

**RESULTS:** The majority of women received prenatal (78%) and postpartum (86%) contraceptive counseling; 72% received both. Compared with those who received no counseling, those counseled during 1 time period (adjusted odds ratio [AOR], 2.10; 95% confidence interval [CI], 1.65–2.67) and both time periods (AOR, 2.33; 95% CI, 1.87–2.89)

had significantly increased odds of postpartum use of a more effective contraceptive method (32% vs 49% and 56%, respectively;  $P$  for trend  $< .0001$ ). Results for counseling during both time periods differed by type of health insurance before pregnancy, with greater odds of postpartum use of a more effective method observed for women with no insurance (AOR, 3.51; 95% CI, 2.18–5.66) and Medicaid insurance (AOR, 3.74; 95% CI, 1.98–7.06) than for those with private insurance (AOR, 1.87; 95% CI, 1.44–2.43) before pregnancy. Findings were similar for postpartum use of any contraceptive method, except that no differences by insurance status were detected.

**CONCLUSION:** The prevalence of postpartum contraceptive use, including the use of more effective methods, was highest when contraceptive counseling was provided during both prenatal and postpartum time periods. Women with Medicaid or no health insurance before pregnancy benefited the most.

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## BACKGROUND AND OBJECTIVE

Nearly half of US pregnancies are unintended (UIP) and approximately one-third are conceived within 18 months of a previous live birth. Postpartum contraceptive use is a primary strategy for reducing UIPs and optimizing birth spacing. Discussion of contraceptive options and prompt initiation of a method

postpartum should be a primary focus of routine prenatal and postpartum care.

This analysis examines the associations between prenatal contraceptive counseling, postpartum contraceptive counseling, and both prenatal and postpartum contraceptive counseling with use of any and more effective contraceptive methods.

## MATERIALS AND METHODS

The Pregnancy Risk Assessment Monitoring System is an ongoing population-based surveillance system that gathers information on maternal behaviors and experiences before, during, and after pregnancy. We analyzed 2004–2008 data from 3 reporting areas: Missouri, New York state (excluding New York City), and New York City.

More effective methods were defined as those with less than 10% of women experiencing a UIP within the first year of typical use. To focus on postpartum women at risk for UIP or short interpregnancy interval (IPI), we excluded women who reported that they were

currently pregnant, were not sexually active at the time of the survey, or had undergone hysterectomy.

Separate multivariable logistic regression models were used to examine associations between prenatal, postpartum, and prenatal and postpartum contraceptive counseling and the use of any contraceptive method (yes vs no) and the use of a more effective contraceptive method (yes vs a less effective or no method).

Because we suspected that women who had received postpartum sterilization might have reported not receiving postpartum contraceptive counseling (eg, they received all counseling during pregnancy), we conducted a sensitivity analysis excluding these women. Among the entire sample, we also examined whether the associations between receiving prenatal and postpartum contraceptive counseling and each outcome were modified by pregnancy intention or type of health insurance before pregnancy by testing interaction terms added to full models.

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TABLE

**Associations between contraceptive counseling and postpartum contraceptive use, PRAMS, 3 reporting areas, 2004–2008 (n = 9536)<sup>a</sup>**

Contraceptive counseling	Postpartum contraceptive use			
	Use of any contraceptive method (vs no method)		Use of a more effective <sup>b</sup> contraceptive method (vs less effective <sup>c</sup> or no method)	
	n (%) <sup>d</sup>	AOR (95% CI) <sup>e</sup>	n (%) <sup>d</sup>	AOR (95% CI) <sup>e</sup>
<b>Prenatal</b>				
No	1740 (76.4)	1.00	918 (39.2)	1.00
Yes	6320 (86.9)	1.53 (1.29–1.82) <sup>f</sup>	4110 (56.4)	1.51 (1.30–1.75) <sup>f</sup>
<b>Postpartum</b>				
No	1057 (74.8)	1.00	643 (44.6)	1.00
Yes	7003 (86.2)	1.64 (1.34–2.00) <sup>f</sup>	4385 (53.9)	1.19 (1.00–1.41)
<b>Prenatal and postpartum</b>				
None	546 (68.5)	1.00	264 (31.8)	1.00
One (prenatal or postpartum only)	1705 (81.4)	2.01 (1.55–2.59) <sup>f</sup>	1033 (48.6)	2.10 (1.65–2.67) <sup>f</sup>
Both (prenatal and postpartum)	5809 (87.2)	2.74 (2.18–3.45) <sup>f</sup>	3731 (56.0)	2.33 (1.87–2.89) <sup>f</sup>
P for trend	< .0001		< .0001	

AOR, adjusted odds ratio; CI, confidence interval; PRAMS, pregnancy risk assessment monitoring system.

<sup>a</sup> Missouri, New York City, and New York; <sup>b</sup> Includes female sterilization, male sterilization, intrauterine device, implant, pills, patch, ring, or shots; <sup>c</sup> Includes condoms, diaphragm, cervical cap, sponge, withdrawal, rhythm method, or natural family planning; <sup>d</sup> Unweighted n, weighted percentage; <sup>e</sup> Adjusted for maternal age, race/ethnicity, marital status, education, type of insurance before pregnancy, pregnancy intention of most recent live birth, number of previous live births, currently breast-feeding, time since pregnancy (months), reporting area, year, receipt of postpartum contraceptive counseling (for prenatal contraceptive counseling), and receipt of prenatal contraceptive counseling (for postpartum contraceptive counseling); <sup>f</sup> Statistically significant at  $P < .05$ .

Zapata. Counseling and postpartum contraception. *Am J Obstet Gynecol* 2015.

## RESULTS

Of 9536 women eligible for the current analysis, 78% had received prenatal counseling, 86% had received postpartum counseling, and 72% had received both (Table). Compared with those who had received no counseling, those who had received counseling during 1 time period (either prenatal or postpartum) and those who received counseling during both time periods (prenatal and postpartum) had higher prevalence and increased odds of using any method postpartum (69% vs 81% and 87%, respectively) and of using a more effective method postpartum (32% vs 49% and 56%, respectively).

Findings from the sensitivity analysis, which excluded women who reported sterilization postpartum, found a more pronounced incremental increase in odds of postpartum use of a more effective contraceptive method comparing women who received no counseling (the

referent), those who received counseling during 1 time period, and those who received counseling during both time periods.

Among the entire sample, results for counseling during both time periods significantly differed by type of health insurance before pregnancy for use of a more effective contraceptive method postpartum. Although contraceptive counseling during both time periods (vs no counseling) was significant for women in each category of prepregnancy insurance, greater odds of using a more effective method postpartum were observed for women with no insurance and Medicaid insurance than for those with private insurance.

## COMMENT

Only half of postpartum women at risk for UIP or short IPI reported using a highly effective contraceptive method, highlighting the potential role of contraceptive counseling to increase

postpartum use and thereby help prevent adverse outcomes associated with UIP and short IPI. Our findings suggest that prenatal and postpartum contraceptive counseling, independently, were associated with postpartum contraceptive use, but the prevalence of postpartum contraceptive use, including the use of more effective methods, was highest when contraceptive counseling was provided during both the prenatal and postpartum periods. The greatest benefit of receiving counseling during both time periods was observed for women with Medicaid or no insurance before pregnancy compared with those privately insured.

Other analyses have found increased postpartum contraceptive use among women who received a postpartum care visit. However, not all women attending postpartum care visits receive contraceptive counseling.

Although many of the most effective methods require little ongoing effort to use correctly and continuously, they

do require provider initiation. Provider counseling and method initiation before hospital discharge may be a practical strategy to increase the postpartum use of effective contraceptives because women are already within the health care system and may not return for follow-up postpartum care visits.

Providing contraceptive counseling during prenatal and postpartum periods can be important in increasing postpartum contraceptive use, thereby reducing UIP and short IPI. Several promising approaches for providing quality contraceptive counseling have been identified and can be incorporated

into practice; these include emphasizing the quality of the interaction between provider and client, personalizing discussions to meet clients' individual needs, addressing psychosocial determinants of contraceptive use behavior, setting goals and developing action plans to deal with anticipated difficulties, and multiple client contacts. Providers are encouraged to counsel using a tiered approach (ie, presenting information on the most effective methods before presenting information on less effective methods). Most contraceptive options, including many effective methods, are considered safe during the postpartum period.

#### CLINICAL IMPLICATIONS

- Postpartum contraceptive use, including the use of more effective methods, was highest when contraceptive counseling was provided both prenatally and postpartum.
- Provider counseling and method initiation before hospital discharge may be a practical strategy to increase postpartum use of effective contraceptives.
- Most contraceptive options, including many effective methods, are considered safe during the postpartum period. ■

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