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Postpartum contraceptive use among women with a recent preterm birth

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Abstract

OBJECTIVE—To evaluate the associations between postpartum contraception and having a recent preterm birth.

STUDY DESIGN—Population-based data from the Pregnancy Risk Assessment Monitoring System in nine states were used to estimate postpartum use of highly or moderately effective contraception (sterilization, intrauterine device, implants, shots, pills, patch, and ring) and user-independent contraception (sterilization, implants, and intrauterine device) among women with recent live births (2009–2011). We assessed differences in contraception by gestational age (27, 28–33, or 34–36 weeks versus term [37 weeks]) and modeled the associations using multivariable logistic regression with weighted data.

RESULTS—A higher percentage of women with recent extreme preterm birth (27 weeks) reported using no postpartum method (31%) compared with all other women (15%–16%). Women delivering extreme preterm infants had decreased odds of using highly or moderately effective methods (adjusted odds ratio [aOR]=0.5, 95% confidence interval [CI]: 0.4 – 0.6) and user-independent methods (aOR=0.5, 95% CI: 0.4 – 0.7) compared with women having term births. Wanting to get pregnant was more frequently reported as a reason for contraceptive non-use by women with an extreme preterm birth overall (45%) compared with all other women (15%–18%, $p<.0001$). Infant death occurred in 41% of extreme preterm births and over half (54%) of these mothers reported wanting to become pregnant as the reason for contraceptive non-use.

CONCLUSIONS—During contraceptive counseling with women who had recent preterm births, providers should address optimal pregnancy interval, and consider that women with recent extreme

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preterm birth, particularly those whose infants died, may not use contraception because they want to get pregnant.

Keywords

contraception effectiveness; Medicaid; postpartum; preterm birth; insurance

INTRODUCTION

In 2012, 12% of all U.S. births were preterm (PTB, <37 weeks' gestation),¹ and preterm-related deaths are the leading cause of infant mortality.^{2,3} Short interpregnancy intervals (IPI) (i.e., conception within 18 months of a previous birth) are associated with approximately 40% increased risk of preterm birth (PTB, <37 weeks' gestation), low birth weight, and small for gestational age⁴ and an increased risk of recurrent PTB.⁵ Short IPI has also been linked to severe maternal complications such as premature membrane rupture, abruption placentae, and placenta previa.⁶ Consequently, a Healthy People objective aims to reduce the proportion of pregnancies with short IPI by 10% by 2020 (baseline = 33.1%, 2006–2010).⁷

Use of highly effective contraception postpartum, particularly user-independent methods, is an important strategy for reducing PTB, short IPI, and recurrent PTB. User-independent methods include male and female sterilization for those not desiring another pregnancy and long-acting reversible contraceptives (LARCs) for women who are not ready for childbearing but want to preserve their fertility.^{8,9} The American College of Obstetricians and Gynecologists encourages clinicians to offer LARCs as first-line contraception because they are reversible, have very high effectiveness and continuation rates (>99% of women avoid an unintended pregnancy within the first year of use) and are cost-effective even when used short-term (12–24 months).^{8,10,11} Permanent contraceptive methods (sterilization) are also highly effective (>99%), while effectiveness rates of other moderately effective, user-dependent methods (i.e., pills, patch, ring, and shots) range from 91% to 94% with typical use.¹⁰

Although several studies have examined contraceptive methods used postpartum,^{12–15} none have focused on women with recent PTB, a group that is at risk of future PTB and in need of highly effective contraception to prevent short IPI and reduce recurrent PTB. We examined the prevalence of postpartum contraceptive use among women with recent live births and explored the associations between recent PTB and consequent use of highly and moderately effective methods. We also investigated whether associations vary by insurance type and examined the reasons for contraceptive non-use.

MATERIALS AND METHODS

This analysis is based on data from the Pregnancy Risk Assessment Monitoring System (PRAMS), an ongoing population-based survey of women with live births in the past 2–9 months. The PRAMS research design and survey methods have been described elsewhere,¹⁶ and additional details are available from the PRAMS website (<http://www.cdc.gov/prams>). Briefly, each participating state draws a stratified random sample from birth certificates and

mails up to three surveys to each selected participant. Women who do not respond to the mailings are followed up by telephone. The data are weighted to account for sampling frame, noncoverage and participant nonresponse, thus allowing for population-based inferences. The PRAMS protocol was approved by the Centers for Disease Control and Prevention's (CDC's) Institutional Review Board, and participating states approved the study analysis plan.

Data

PRAMS surveys comprise core questions that are asked by all participating sites and standard optional questions that sites may choose to add. For this analysis, we analyzed 2009–2011 data from nine states (AR, CO, MI, NE, OH, OR, RI, TN, UT) that asked the optional question about specific contraceptive methods used postpartum and achieved an overall weighted response rate of 65%.

Measures

We estimated gestational age using the clinical estimate reported on the birth certificate and categorized gestational age as term births (> 37 weeks) and PTB (34–36 weeks, 28–33 weeks, and < 27 weeks [extreme PTB]). Gestational age categories were selected a priori.

To describe postpartum contraceptive use, we examined responses to the following questions: “Are you or your husband or partner doing anything now to keep from getting pregnant?” and “What kind of birth control are you or your husband or partner using now to keep from getting pregnant?” Because respondents could report multiple methods, the most effective method of all responses was selected.¹⁰

Contraceptive use was categorized according to effectiveness.¹⁰

- *Highly and moderately effective methods* were those with which <10% of women have an unintended pregnancy within the first year of use: permanent methods (tubal ligation or vasectomy) and LARCs (intrauterine device or contraceptive implant), and moderately effective user-dependent methods (shots, pill, patch, and ring).
- *Less effective methods* were those with which > 10% of women have an unintended pregnancy within the first year of use: male and female condoms, diaphragm, cervical cap, sponge, emergency contraception, rhythm, withdrawal, and other.
- No contraceptive method (non-use) was coded when women answered “no” to current contraceptive use or reported that their only method was abstinence.

All non-users were asked about reasons for not using contraceptives, specifically, “What are your reasons or your husband's or partner's reasons for not doing anything to keep from getting pregnant now?” Multiple close-ended responses were allowed and included: “I am not having sex,” “I want to get pregnant,” “I don't want to use contraception,” “My husband or partner doesn't want to use anything,” “I don't think I can get pregnant,” “I can't pay for birth control,” and “Other reason.” Respondents also had the option to write-in a responses.

Analysis

Of 37,089 respondents, 4,678 (12.6%) were excluded because of current pregnancy or hysterectomy (0.6%), or missing information on postpartum contraceptive method (2.8%) or covariates (9.2%). Women who reported abstinence were included in our analysis as non-users, since 90% of postpartum women resume sexual activity by 4 months postpartum,¹⁷ and hence are at risk for pregnancy.

Our final analytic sample included 32,411 non-pregnant women with recent live births and data on all covariates. We estimated prevalence of maternal characteristics and postpartum contraceptive use (highly or moderately effective methods, less effective methods, and no method) stratified by PTB group, and used chi-square tests to assess statistical differences ($p < .05$). Using multivariable logistic regression to control for potential confounders, we evaluated associations between recent PTB and two measures of postpartum contraceptive use: 1) any highly or moderately effective contraceptive method (versus less effective methods and no method) and 2) highly effective user-independent methods (versus moderately effective methods, less effective methods, and no method). Potential confounders identified from the literature were age, race/ethnicity, education, income, health insurance, marital status, prenatal care, parity, and smoking. We conducted sensitivity analyses of the multivariable models among subgroups of women who expressed no concerns about potential infertility ($n=32,309$) and multiparous women – additionally controlling for pregnancy intention and previous PTB ($n=14,068$). We also examined associations between infant death and contraceptive use among women who had extreme PTB ($n=517$). We assessed effect modification by insurance type at delivery (private, Medicaid, other, none) for the full sample by examining statistical significance of interaction terms between PTB and insurance type for both outcomes ($p\text{-value} < 0.05$). All analyses were conducted using weighted data and STATA 13 (StataCorp LP, 2013) to adjust for the complex survey design, thus allowing for population inferences.

RESULTS

A larger percentage of excluded women had recent PTB (10.4%) compared with the analytic sample (8.7%, $p=.005$) and reported no postpartum contraceptive method (24.4% versus 8.7%, $p < .0001$). Of excluded women, recent PTB was even higher among the subset of excluded pregnant women (14.1%). Excluded women were also more likely to be young, minority race/ethnicity, low-income, unmarried, and report late entry into prenatal care, and less likely to be college educated or privately insured.

Prevalence of having a recent PTB was 8.7%, of which extreme PTB accounted for $< 1\%$ (Table 1). Compared with women who had recent term births, a higher percentage of women with recent PTBs were non-Hispanic black, low-income, unmarried, and current cigarette smokers. Additionally, a higher percentage of women with recent PTBs reported having had three or more previous live births, previous PTB, no prenatal care for the most recent live birth, and death of most recent live-born infant. A smaller percentage of women with recent PTB were college educated or had private insurance (compared with women with recent term births). Infant death varied by gestational age of the recent birth: 41% at 27 weeks, 2% at 28–33 weeks, and $< 1\%$ for 34 weeks.

Postpartum contraceptive use varied by gestational age of the most recent birth (Figure 1, $p < .0001$). Nearly half (39%) of all women with recent PTB reported using a less effective method or no method at all. Except for those with a recent extreme preterm birth, most women reported using moderately effective user-dependent methods. Women with extreme PTB most frequently reported no method (31%), at roughly twice the prevalence that was reported by all other groups of women (15%–16%). Women with extreme PTB also had the lowest prevalence of using moderately effective user-dependent methods (25%), LARCs (10%), and permanent contraception (8%), compared with all other groups of women. In subgroup analyses among women with an extreme PTB, a higher percentage of women whose infants died used no method (42%) compared with their counterparts whose infants survived (19%, $p = .0003$; not shown).

After adjusting for confounders, women with extreme PTB had half the odds (adjusted odds ratio [aOR] = 0.5) of using any highly or moderately effective method, or user-independent methods, compared with women who had recent term births (Table 2). However, point estimates for other women with PTB (28–33 and 34–36 weeks) did not statistically differ from those with term births. The point estimates for using any highly or moderately effective method, or user-independent methods among women with extreme PTB were unchanged in sensitivity analyses for the subsample of women who expressed no concerns about potential infertility, or after controlling for previous PTB and pregnancy intention for the subsample of multiparous women (not shown). We found no evidence of effect modification by insurance type.

Among women with extreme PTB, the most frequently reported reason for contraceptive non-use was the desire to get pregnant (45%), and this reason was more prevalent when limited to those with extreme PTB who lost their infants (54%, not shown). Among women who were not using any contraception, lower percentages of women with recent PTB 28–33 weeks and 27 weeks reported not wanting to use contraception (21% and 17%, respectively) than women who had term births (35%, Table 3). Many women with recent term (29%) or PTB (17%–28%) alike reported reasons for contraception non-use other than those in the explicit response options. Believing that one could not get pregnant, current breastfeeding, and pregnancy ambivalence or desire were the most frequent reasons noted among women who reported “other”. Financial barriers to obtaining birth control were infrequently reported as a reason by all groups (6%–11%).

COMMENT

Overall, nearly half of all women with recent PTB reported using less effective contraceptive methods or no method. Women with recent extreme PTB had reduced odds of using any highly or moderately effective method, or user-independent methods, compared with women with recent term births. We also found that a higher percentage of women with extreme PTB whose infants died used no method (42%) compared with their counterparts whose infants survived (19%). This finding suggests that the observed associations between extreme PTB and contraceptive effectiveness are mediated by infant death. The associations between gestational age of recent birth and use of any highly or moderately effective method did not differ according to insurance status. Reasons for not using contraception differed by recent

history of PTB. Of women whose recent extreme PTB resulted in infant death, over half reported not using contraception because they wanted to become pregnant. Wanting to get pregnant was more frequently reported among women with a recent extreme PTB than among women who had term births. Financial barriers were infrequently reported for contraceptive non-use among all women.

PTB is a strong predictor of recurrent PTB,¹⁸ and our finding that approximately half of women with recent PTB were using less-effective methods or no contraception should serve as a call to action. Many women with recent PTB, particularly those whose babies died, want to get pregnant and therefore do not use contraception postpartum. Providers need to consider this possibility during contraceptive counseling. Contraceptive counseling on the negative consequences of short IPI and early postpartum access to highly effective contraception, such as LARCs or sterilization, if appropriate and desired by the woman, is a critical strategy for reducing short IPI and PTB.^{19, 20} Providers can also use the contraceptive counseling moment as an opportunity to correct misperceptions about impaired postpartum fertility. This is important because postpartum women may underestimate their fertility after birth.²¹

The earliest and possibly best opportunity for initiating highly effective contraception postpartum is before hospital discharge after delivery. There are a couple of reasons for this. First, sexual activity frequently occurs before the postpartum visit.²² Second, the postpartum period can be a chaotic time, and new mothers can be narrowly focused on their newborns during that time. This may be particularly true for women with critically ill infants undergoing intensive care. As a result of this intense focus on newborns, women may neglect their own needs during the postpartum period. For example, a large study of Medicaid claims in California found less than half (41%) of postpartum women received contraceptive services within the first 3 months of giving birth.²³ Although it is ideal to provide immediate access to highly effective contraception after delivery, unfortunately, the global fee for delivery-related care typically does not include reimbursement for contraception.²⁴

The postpartum visit provides another important opportunity for contraceptive counseling and contraception initiation. Zutshi et al. recently investigated risk factors for short IPI among women who attended an obstetrics-gynecology residence clinic in a large community hospital and found women who received postpartum visits had lower rates of pregnancy within 18 months of delivery.²⁵ Highly effective contraception can be initiated at the postpartum visit without waiting for menses to resume if the clinician is reasonably certain the woman is not pregnant. This strategy, known as Quick Start, is recommended by the CDC^{26,27} and has been shown to be safe and effective.^{28,29} Unfortunately, nearly one-fourth of women who deliver do not return for postpartum visits.³⁰ For these women, Quick Start of contraception could be offered at other medical visits for the mother or her infant during the postpartum period.

The findings from our study are subject to the following limitations. First, PRAMS data were not available for all states; the nine states in our analysis represent about 14% of US births; white women are overrepresented and non-Hispanic black and Hispanic women are

underrepresented compared to the United States population.³¹ Second, PRAMS only surveys women who delivered live infants; we cannot comment on women who had stillbirths or miscarriages. Third, misclassification is possible since some women use contraceptive methods other than those specified by the survey options. For example, PRAMS does not assess breastfeeding exclusivity. Therefore, women relying on lactation amenorrhea may be misclassified as non-users. Fourth, selection bias is possible since nearly 13% women were excluded and larger percentages of excluded women had recent PTB compared with the analytic sample. Fifth, we did not exclude women who reported that they were not currently sexually active as we assumed that sexual activity would most likely resume, putting them at risk of short IPI. If anything, this would lead to underestimates of contraceptive method types compared with those reported by other studies that excluded abstinent women. However, our estimates generally aligned with ranges reported by other studies.

Despite these limitations, the study results suggest that women with recent PTB may benefit from contraceptive counseling on the negative consequences of short IPI. Additionally, contraceptive providers should consider that women whose infants died may want to become pregnant again relatively soon and address optimal pregnancy intervals with sensitivity. Contraceptive counseling that encourages use of highly effective contraceptive methods and dispels myths about impaired fertility during the postpartum period is important for all postpartum women, especially those with recent history of PTB. Patient and institutional barriers to using highly effective contraception postpartum need to be addressed, and research should explore whether women with recent PTB encounter additional barriers. Use of highly effective postpartum contraception may be improved with additional education about fertility during the postpartum period, and with increased opportunities to receive contraceptive counseling at all medical visits for mothers and their infants during the postpartum period.

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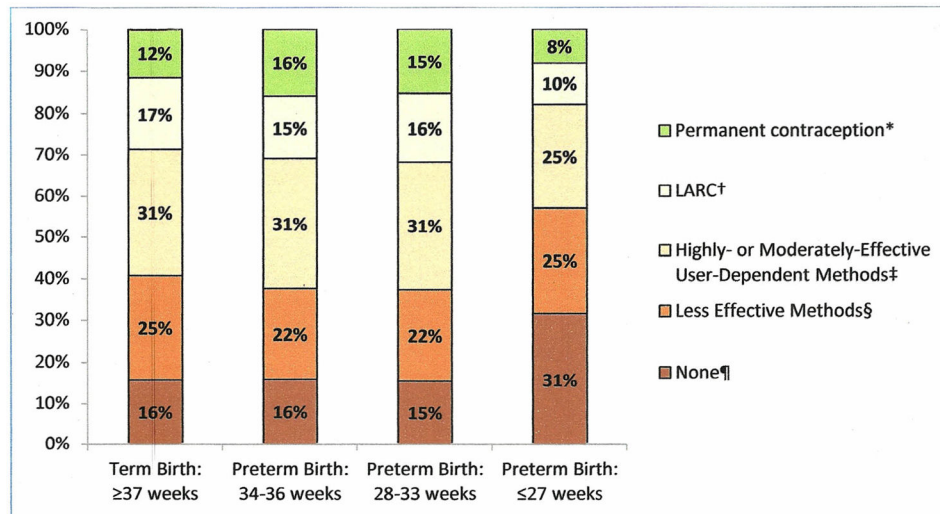


Figure 1. Percentage of Postpartum Contraceptive Method Type

This figure depicts the prevalence of postpartum contraception use (permanent, long-acting reversible contraceptives [LARCs], highly- and moderately-effective user-dependent methods, less effective methods, none) stratified by most recent birth outcome (term or preterm: 34–36 weeks, 28–33 weeks, 27 weeks)

$p < .0001$

Pregnancy Risk Assessment Monitoring System, 9 U.S. states and New York City, 2009–2011.

* Includes tubal ligation and vasectomy.

† Includes intrauterine devices, and implants.

‡ Includes shots, pill, patch, and ring.

§ Includes male and female condoms, diaphragm, cervical cap, sponge, emergency contraception, rhythm, withdrawal, and other.

¶ Includes abstinence.

Table 1

Maternal characteristics among sample of postpartum (2–9 months), non-pregnant, women by history of recent preterm birth*

Maternal Characteristics	Recent Term Birth			Recent Preterm Birth			P-value (Chi Square)
	37 weeks n = 25,946	34–36 weeks n = 3,987	28–33 weeks n = 1,872	27 weeks n = 606	95% CI	95% CI	
Age (years)	Weighted %	95% CI [†]	Weighted %	95% CI	Weighted %	95% CI	
19	91.3	90.9, 91.6	6.46	6.1, 6.8	1.72	1.6, 1.8	0.0330
20–24	8.4	7.9, 8.9	8.3	6.8, 10.1	10.1	8.3, 12.4	
25–29	23.5	22.8, 24.3	23.0	20.7, 25.5	23.6	20.8, 26.7	
30–34	31.5	30.6, 32.3	29.8	27.2, 32.6	26.5	23.5, 29.7	
35	24.3	23.5, 25.1	24.5	22.1, 27.1	23.9	20.8, 27.4	
	12.3	11.8, 12.9	14.3	12.4, 16.3	15.8	13.7, 18.3	
Race/ethnicity							<.0001
White, non-Hispanic	72.6	72.0, 73.3	71.5	69.1, 73.7	63.8	60.3, 67.2	
Black, non-Hispanic	9.8	9.5, 10.2	14.1	12.5, 15.9	19.6	17.1, 22.4	
Other, non-Hispanic	5.6	5.2, 6.0	5.0	4.0, 6.2	6.9	4.5, 10.3	
Hispanic	12.0	11.5, 12.5	9.5	8.2, 10.9	9.7	8.3, 11.4	
Education (highest level)							0.0001
Less than 12 th grade	14.4	13.8, 15.1	16.3	14.2, 18.7	16.7	14.4, 19.4	
12 th grade, GED, or high school graduate	24.6	23.8, 25.4	27.2	24.6, 29.9	29.3	26.3, 32.5	
Some college or more	61.0	60.1, 61.9	56.5	53.6, 59.3	54.0	50.5, 57.5	
Household Income (dollars)							<.0001
Less than 10,000	20.3	19.6, 21.1	24.8	22.3, 27.4	29.3	26.2, 32.6	
10,000–19,999	15.8	15.1, 16.5	16.0	13.9, 18.3	16.2	13.3, 19.7	
20,000–34,999	17.3	16.7, 18.1	15.3	13.4, 17.4	16.8	14.6, 19.4	
35,000–49,999	11.5	10.9, 12.1	10.0	8.6, 11.7	9.3	7.7, 11.2	
50,000+	35.1	34.3, 36.0	34.0	31.3, 36.7	28.4	25.4, 31.5	
Marital Status							<.0001
Not married	34.1	33.3, 35.0	38.7	35.9, 41.6	43.6	40.1, 47.3	
Married	65.9	65.0, 66.7	61.3	58.4, 64.1	56.4	52.8, 59.9	
Health insurance at delivery							0.0001

Maternal Characteristics	Recent Term Birth			Recent Preterm Birth			P-value (Chi Square)	
	37 weeks n = 25,946	34-36 weeks n = 3,987	28-33 weeks n = 1,872	27 weeks n = 606				
	Weighted %	95% CI [†]	Weighted %	95% CI	Weighted %	95% CI		
Maternal Characteristics								
Uninsured	1.8	1.5, 2.1	2.0	1.4, 2.9	2.0	1.2, 3.3	3.2	1.8, 5.8
Medicaid	42.8	41.9, 43.7	43.5	40.6, 46.3	49.8	46.3, 53.3	53.1	47.2, 53.8
Other [‡]	8.2	7.7, 8.7	10.3	8.5, 12.4	9.0	7.3, 10.9	9.5	7.1, 12.8
Private	47.3	46.4, 48.2	44.3	41.4, 47.1	39.3	36.0, 42.7	34.2	29.1, 39.7
Prenatal Care								<.0001
None	0.4	0.3, 0.5	1.6	1.0, 2.5	2.8	1.9, 4.2	3.9	1.9, 7.9
Late	17.1	16.5, 17.9	13.4	11.8, 15.2	17.5	15.0, 20.4	17.8	13.5, 23.1
Early	82.4	81.7, 83.1	85.0	83.1, 86.7	79.7	76.7, 82.4	78.3	72.7, 83.1
Current Smoker								<.0001
Yes	18.9	18.1, 19.6	24.7	22.1, 27.5	23.0	20.2, 26.1	23.6	18.9, 29.1
No	81.2	80.4, 81.9	75.3	72.5, 77.9	77.0	73.9, 79.8	76.4	70.9, 81.2
Number of previous live births								0.0001
0	39.4	38.5, 40.3	38.3	35.5, 41.1	43.4	40.0, 46.9	41.2	35.7, 46.9
1-2	49.7	48.8, 50.6	47.4	44.5, 50.3	41.8	38.3, 45.4	43.3	37.7, 49.2
3+	10.9	10.3, 11.5	14.3	12.4, 16.5	14.8	12.6, 17.3	15.5	10.8, 21.8
Previous preterm birth[§]								<.0001
Yes	4.0	3.5, 4.6	14.2	11.0, 18.1	17.8	12.5, 24.8	13.6	9.4, 19.3
No	96.0	95.4, 96.5	85.8	81.9, 89.0	82.2	75.2, 87.5	86.4	80.8, 90.6
Recent live-born baby died								
Yes	0.1	0.1, 0.2	0.3	0.1, 0.5	2.0	1.3, 4.6	40.7	34.7, 47.1
No	99.9	99.8, 99.9	99.7	99.5, 99.9	98.0	95.4, 98.7	59.3	52.9, 63.4

* Based on Pregnancy Risk Assessment Monitoring System, 9 U.S. states, 2009-2011; n=32,411.

[†] 95% Confidence Interval

[‡] Includes Tri-Care, other military, Indian Health Services, state-specific Children's Health Insurance Plan, Children's Health Insurance Plan.

[§] Among multiparous women only, n=14,068

Table 2

Adjusted odds ratios and 95% confidence intervals modeling associations between postpartum contraceptive methods and history of recent preterm birth*

Most recent live birth, weeks of gestation	Postpartum Use of Contraception			
	Highly- or Moderately-Effective Contraceptive Methods [†]		Highly-Effective User-Independent Contraceptive Methods [‡]	
	aOR [§]	95% CI [¶]	aOR	95% CI
37	ref		ref	
34–36	1.1	1.0, 1.3	1.1	0.9, 1.2
28–33	1.1	1.0, 1.3	1.2	1.0, 1.4
27	0.5	0.4, 0.6	0.5	0.4, 0.7

aOR, adjusted odds ratio; CI, confidence interval; ref, reference

* Based on Pregnancy Risk Assessment Monitoring System, 9 U.S. states, 2009–2011; n=32,411.

[†] Includes tubal ligation, vasectomy, intrauterine devices, implants, shots, pill, patch, and ring (versus male and female condoms, diaphragm, cervical cap, sponge, emergency contraception, rhythm, withdrawal, and other).

[‡] Includes tubal ligation, vasectomy, intrauterine devices, or implants (versus shots, pill, patch, and ring, male and female condoms, diaphragm, cervical cap, sponge, emergency contraception, rhythm, withdrawal, and other).

[§] Adjusted for age, race/ethnicity, education, income, insurance, marital status, prenatal care entry, parity, and smoking.

[¶] 95% confidence interval.

Table 3

Reasons for not using contraception by gestational age of recent birth*

Reason Given	Recent Term Birth			Recent Preterm Birth			P-value (Chi Square)
	37 weeks	34–36 weeks	28–33 weeks	27 weeks	95% CI	95% CI	
	Weighted %	95% CI [†]	Weighted %	95% CI	Weighted %	95% CI	
I am not having sex	28.0	25.8, 30.4	27.5	21.2, 34.9	33.5	26.2, 41.6	.5716
I want to get pregnant	17.7	15.8, 19.8	17.6	12.6, 23.9	15.3	10.9, 21.0	.0001
I don't want to use contraception	35.4	32.9, 38.0	28.1	21.2, 36.3	20.5	14.1, 28.8	.0022
My husband or partner doesn't want to use anything	13.6	11.9, 15.6	11.6	8.2, 16.2	10.1	5.4, 18.2	.3544
I don't think I can get pregnant (sterile)	5.2	4.1, 6.5	8.5	5.6, 12.6	14.8	10.0, 21.3	.0003
I can't pay for birth control	6.3	5.1, 7.7	6.8	4.4, 10.4	10.5	6.0, 17.7	.4079
Other reason	28.5	26.1, 31.0	27.8	20.7, 36.3	21.0	15.1, 28.5	.2286

PTB: preterm birth

* Based on Pregnancy Risk Assessment Monitoring System, 9 U.S. states, 2009–2011; Among 4,280 women who reported no current contraceptive use.

[†]95% Confidence Interval