

**Trends in Contraceptive Use and Desires before and after Unintended Pregnancy:
Insights from Two Cities in Texas**

Abigail R.A. Aiken, MD, MPH[†] & Joseph E. Potter, PhD^{*}

[†] Doctoral Candidate, Population Research Center and LBJ School of Public Affairs,
University of Texas at Austin

^{*} Professor, Population Research Center and Department of Sociology, University of Texas at
Austin

Abstract

Context: Previous unintended pregnancy is a risk factor for a subsequent unintended event. Yet little is known about patterns of contraceptive use and desires following unintended pregnancies that result in live births, or about factors affecting use of a more effective method postpartum.

Methods: We compared contraceptive use pre and post-unintended pregnancy for a cohort of 299 postpartum women aged 18-44 residing in Austin and El Paso, Texas. Binary logistic regression models were used to assess the factors associated with use of a more effective method, and with use of a highly effective method at 3 months postpartum. Women's contraceptive use was also compared with their contraceptive desires.

Results: Postpartum, 51.5% of women were using a more effective method, whereas 88.2% expressed desire for a more effective method. Postpartum contraceptive counseling was associated with increased odds of more effective method use (OR=2.37, p<0.01).

Conclusion: Despite considerable demand for more effective methods, women at high risk of a repeat unintended pregnancy too often remain using contraception of similar or lower efficacy than that being used when the original unintended pregnancy occurred.

Introduction

Unintended pregnancy is often conceptualized as a one-time event, where the unit of analysis is an individual pregnancy rather than an individual woman. Yet previous unintended pregnancy is a risk factor for experiencing a subsequent unintended event (Kuroki et al. 2008), and in 95% of cases, the original unintended pregnancy will have been the result of either incorrect or inconsistent contraceptive use, or use of no method at all (Gold et al. 2009). In light of the persistently high rate of unintended pregnancy in the United States (Finer and Zolna 2011), these facts raise important questions about the contraceptive methods women obtain following the resolution of an unintended pregnancy in birth, miscarriage, or abortion.

Surprisingly little is known about women's trajectory of contraceptive use prior to and following an unintended pregnancy in the United States. In France, a key study by Moreau et al. investigated pre and post-pregnancy contraceptive use among a nationally representative sample of women who underwent abortion, and found that a third of women reported remaining with the same method of contraception before and after the abortion, 54% reported prescription of a more effective method, and 14% ended up with a less effective method or no method at all (Moreau et al. 2010). Given the clear demonstration of lack of effective use of the methods these women were using pre-pregnancy, these results precipitate important questions regarding women's own contraceptive desires following an unintended pregnancy, and the possible role of discussions about contraception with providers in improving access to and uptake of more effective methods.

Such questions are relevant not only in the post-abortion setting, but also in the postpartum context. An estimate calculated from the 2006-2010 National Survey of Family Growth (NSFG) suggests that 61% of unintended pregnancies occur to women who have already had at least one live birth, and that half of these occur within 24 months of delivery (Finer 2011). The prenatal and postpartum periods thus represent an important opportunity for women who have experienced an unintended pregnancy to interact to with healthcare providers, discuss problems with previous methods that have not worked well, and gain information and education about more effective methods. Additionally, for women who generally face financial barriers to highly effective methods with high up-front costs, the pre- and postpartum periods have the potential to facilitate access to such methods on the basis of qualification for Medicaid or Emergency Medicaid through pregnancy.

A recent study examining postpartum contraceptive use among adolescent mothers in seven U.S. states suggests that receipt of a postpartum check-up was associated with increased use of injectables, the patch, and the ring, while prenatal contraceptive counseling was associated with an increased likelihood of oral contraceptive pill use (Wilson, Fowler and Koo 2013). What is not clear, however, is whether these methods represented an improvement upon the methods being used prior to conception, or whether the methods obtained by these women were the methods they really wanted.

Examining contraceptive trajectories pre and post-unintended pregnancy in United States is generally limited by lack of sufficiently detailed data. The Pregnancy Risk Assessment Monitoring System (PRAMS) does provide some information on the postpartum methods being used by women whose unintended pregnancy has resulted in a live birth. But only a

few individual states collect information on pre-pregnancy methods, and questions on provider counseling and contraceptive desires or intentions are not included in the survey in every state. Furthermore, there are no national surveys that include a measure of contraceptive preference or desire.

In this paper, we draw on a survey of postpartum women recruited at three hospitals in Austin and El Paso, Texas. Focusing on a sub-sample of women who experienced an unintended pregnancy, either while using a method incorrectly or inconsistently, or while using no method at all, we address the following questions: 1) How does the distribution of methods being used at the time the unintended pregnancy occurred compare to those being used at 3 months postpartum?; 2) What factors are associated with the use of a more effective method postpartum than being used pre-pregnancy?; 3) What factors are associated the use of a highly effective method (LARC or sterilization) postpartum?; 4) What is the demand for highly effective methods among these women and how does this compare to methods being used at the time the unintended pregnancy occurred?

Methods

Data

Data are drawn from a study of 800 postpartum women recruited from three hospitals in Texas: St David's Hospital in Austin, and University Medical Center and Las Palmas Hospital in El Paso. Hospitals were chosen to obtain a mix of publicly and privately insured participants, a variety of ethnic and socioeconomic groups, and to allow for differences in contraceptive provision by policy context, since levels of public funding for family planning vary between the two cities. Four hundred women were recruited in each city, 300 of whom

were publicly insured and 100 of whom were privately insured at the time of delivery. Eligible participants were aged between 18 and 44 years, wanted no more children for at least two years at the time of recruitment, delivered a healthy singleton infant whom they expected would go home with them upon discharge, and lived in the United States within 50 miles of the hospital of recruitment. At baseline, women were interviewed in person at the hospital following delivery. Follow-up interviews then took place by telephone at 3 months, 6 months, and 9 months postpartum, and the retention rate at 9 months was 83%.

For the purposes of this study, we employ a sub-sample of 299 women whose last pregnancy (i.e. the pregnancy upon which recruitment at baseline was based) was reported as unintended, and who were either using or no method or did not stop using a method with the specific intention of becoming pregnant at the time the pregnancy occurred. Intention is thus defined along two different dimensions: self-reported retrospective intentions, and either stopping use of contraception due to becoming pregnant (for women who were using a method) or not having stopped contraceptive use for the specific purpose of getting pregnant (for women who were not using a method when the pregnancy occurred).

Variables

At the baseline interview, women were asked about receipt of prenatal care and discussion of contraception with a provider during prenatal visits. Data on contraceptive history, and demographic and socioeconomic variables including age, education, ethnicity, relationship status, parity, insurance status, and income were also collected. At the 3-month follow-up interview, women were asked about the intention status of their last pregnancy, the method they were using at the time the pregnancy occurred, and the reason method use was stopped.

They were also asked about current method use, and their ideal or desired method (i.e. the method they would like to be using). The distribution of current method use is very similar at both 3 months and 6 months postpartum for this sub-sample, and current method use at 3 months postpartum was chosen as the key measure both to allow for more accurate examination of the relationship between method use following unintended pregnancy and provider interaction, counseling, and insurance coverage in the immediate postpartum period, and because many couples will already have resumed intercourse by this point. Data on receipt of a postpartum check-up, and discussion of contraception at the postpartum check-up was also collected at the 3-month follow-up.

Pregnancy Intentions and Pre-pregnancy Contraceptive Use

Self-reported intentions were measured using the question: “Thinking back to just before you got pregnant with your new baby, would you say that you: Wanted to be pregnant sooner, Wanted to be pregnant then, Wanted to be pregnant later, Did not want to be pregnant then or at any time in the future, or Don't know.” Pre-pregnancy contraceptive method was assessed by asking “What was the last method of birth control you were using before you got pregnant with your new baby?” with answer options including the full range of contraceptive methods. Women were then asked, “What was the primary reason you stopped using this method?” and women who stopped using contraception with the intention of getting pregnant were then excluded from the sub-sample.

For the remaining women, the methods being used at the time the unintended pregnancy occurred were then categorized into a three-tier hierarchy constructed according to method efficacy, following that detailed in *Contraceptive Technology* (Trussell and Guthrie 2011). The

lowest tier, which we term “less effective methods” (LEM), includes methods where 18 or more pregnancies per 100 women per year would be expected with a typical use. This category includes condoms, withdrawal, spermicides, sponges, fertility-based awareness methods (including the rhythm method), and abstinence. The middle tier, which we term “hormonal methods” (no women in our study were using the diaphragm either before or after pregnancy) comprises methods for which 6-12 pregnancies per 100 women per year can be expected with typical use. This category includes combined and progestin-only contraceptive pills, injectables, the vaginal ring, and the patch. The top tier, which we term “highly effective methods” includes those for which less than 1 pregnancy per 100 women per year can be expected with typical use. This category includes the implant, the Copper-T IUD, the Mirena IUD, female sterilization, and vasectomy. No women in the sub-sample were using a highly effective method at the time they became pregnant. Women who were using no method when they became pregnant unintentionally were classed in a category below the lowest method tier, called “No Method” (85 pregnancies per 100 women per year can be expected when no method is used).

Current Contraceptive Use

Current contraceptive use at 3 months was assessed using the question “Are you using a birth control method now? Please include any methods that your husband or partner is using.” Women who answered “Yes” were then asked the question “What birth control method or methods are you using?” To account for the full range of ideas and opinions on what constitutes birth control, we included a follow-up probe for women who answered “No”, using the question “Are you using any of the following?” with answer options “Abstinence (Not having sex)”, “Condoms”, “Breastfeeding as birth control (Lactational

amenorrhea method or LAM)", "Rhythm method", "CycleBeads, Natural Family Planning or Fertility Awareness", "Withdrawal", or "None of the above". Only women who answered "None of the above" were classified as using no method, and this categorization did not apply to any of the women in our sample. The very small number of women who stated that they were using two methods together were classified under the most effective of the two methods, according to typical use (Trussell 2011). Current method use at 3 months postpartum was then categorized into the three-tier method hierarchy described above, separating the top-tier method group out into long-acting and reversible methods (LARC) and permanent methods (male and female sterilization).

Contraceptive Desires

The concept of a preferred method of contraception is fairly novel, having previously been examined in only a two studies based in Brazil and El Paso, Texas, with respect to postpartum sterilization (Potter et al. 2003; Potter et al. 2012). In this study, we designed a panel of questions to capture method preference at 6 months postpartum. The 6-month time-point was chosen to allow for influences such as breastfeeding that might be more relevant at earlier time points. While it is also possible that some of those who obtained less effective methods at 3 months might have been using them as a fill-in (e.g. due to desire to avoid estrogen-containing hormonal methods while breastfeeding), the very similar distribution of methods of being used at 6 months postpartum (not shown in this paper) suggests that this is not likely to be the case.

We began with the initial question "If you could use any birth control method you wanted, including methods your husband or partner could use, what birth control method would you

like to be using three months from now?” Because preferred method is a relatively new concept, we conducted 16 in-depth interviews to test the question and gain a sense of how women in our sample would answer. We found that women initially often answered within the constraints of what they knew they could access rather than with their ideal method. Additionally, not all methods of contraception automatically fell within women’s perceptions of what counts as birth control, particularly with respect to permanent methods such as tubal ligation.

To allow for the possibility that women’s answers to the initial question regarding their preferred method would be constrained by cost or other barriers, and to accommodate the full range of definitions of birth control, we included a set of follow-up probe questions after the main question described above to further ascertain contraceptive desires. The first of these questions followed directly from the initial question about method preference: “Did you leave out any method(s) because it was too expensive or not covered by your insurance?” and if so, “What method(s) did you leave out?” Women who had not mentioned LARC in response to any previous question were also asked “Would you consider using an IUD if it was offered free of for a small fee?” The same question was also asked about the implant. To ensure demand for sterilization was fully captured, women who did not want any more children or who did not know if they wanted more children in the future were also asked “Would you like to have had a tubal ligation in the hospital right after you had your new baby?” and those who responded “Yes” were added to the group who spontaneously mentioned sterilization as their preferred method. Finally, women who did not want any more children or did not know if they wanted more children and who had a husband or partner were also asked “Would you like your husband/partner to get a

vasectomy?” Each woman’s desired method was then categorized according to the most effective method mentioned across the set of applicable questions described above. Desired methods were then classified according to the three-tier hierarchy previously described for current method, with the top-tier split into separate categories for LARC and for female and male sterilization.

Analyses

We first compared women’s method use pre-pregnancy to the methods being used at 3 months postpartum in order to determine the distribution of women either moving up in method efficacy (e.g. from no method to any method, from barrier methods to hormonal methods or better, or from hormonal methods to LARC), staying level, or moving down. We then used binary logistic regression models to examine the factors associated with use of a more effective method at 3 months postpartum than that being used pre-pregnancy, and the factors associated with use of a highly-effective top-tier method (LARC or sterilization) at 3 months postpartum. Finally, we compared the methods women were using pre-pregnancy to they methods they desired method at 6 months postpartum, and examined the distribution of women who wanted to move up to a more effective method, remain with the same method, or move down to a less effective method.

All analyses were preformed using Stata version 10.0. Human subjects approval for this study was obtained from the Institutional Review Boards at the University of Texas at Austin, the University of Texas at El Paso, St. David’s Hospital in Austin, TX, University Medical Center in El Paso, TX, and Las Palmas Hospital in El Paso, TX.

Results

Descriptive characteristics for the 299 women in our sample are shown in Table 1. Fifty eight percent delivered their most recent baby in Austin, compared with 42% in El Paso, and 87% were publicly insured at the time of delivery. Most of the women in the sample were Hispanic (79.1%), 44.8% were of parity 3 or greater, and 59.5% wanted no more children in the future. Mean age was 26.6 years, and about one third had less than a high school education. The majority (71.5%) was either married or cohabiting, and 41.3% had a yearly family income of less than \$10,000. Only 51% reported having received contraceptive counseling during prenatal care, compared with 80.9% at the postpartum check-up. Only 9% of the sample reported previous use of a LARC method.

Table 1 also shows the distribution of methods being used before the last unintended pregnancy occurred, the mix of methods at 3 months postpartum, and the methods women desired at 6 months postpartum. At the time the unintended pregnancy occurred, 38.1% of women were using a hormonal method (most frequently combined oral contraceptive pills), 45.5% a less effective method (most frequently condoms), and 16.4% no method. At 3 months postpartum, all women in the sample were using a method of contraception, and 13.8% were using either female or male sterilization (the majority being tubal ligations), 12.4% LARC, 30.2% a hormonal method (Injectables and combined oral contraceptives with equal frequency), and 43.6% a less effective method (again most frequently condoms). For methods desired by 6 months postpartum, the picture is rather different: 35.1% expressed a preference for a female or male sterilization, 41.5% for LARC, 15.7% for hormonal methods, and only 7.7% for less effective methods.

Table 2 shows the distribution of women who moved up, stayed level, and moved down in the hierarchy of method efficacy when comparing method use at the time of unintended pregnancy to method use at 3 months postpartum. Overall, across all methods, 51.5% of women moved up a more effective method, and only 26% moved up to top-tier highly effective method. Thirty four percent remained with their pre-pregnancy method, and 14.1% moved down to a less effective method.

Among women who were using no method at the time unintended pregnancy occurred, all were using a method postpartum, and the vast majority (83%) had moved up to less effective or hormonal methods. Among those who were using less effective methods pre-pregnancy, 52% had moved up postpartum—25.9% to hormonal methods, and 26.1% to LARC or sterilization—while 48.1% continued to use the same method. Finally among women who were using a hormonal method when they became unintentionally pregnant, 30.7% moved up to LARC or sterilization, 32.5% stayed level with a hormonal method, and 36.8% moved down to a less effective method.

The factors associated with use of a more effective method at 3 months postpartum compared to that being used at the time unintended pregnancy occurred are shown in Table 3. Receipt of postpartum contraceptive counseling is the only variable that appears to be significantly associated with use of a more effective method postpartum (OR 2.37, 95% C.I. 1.20-4.71), even when other factors, including insurance status, age, parity, education, and relationship status and income are controlled for. Given that numbers of people in the top

categories of income are small, we also tried collapsing \$50,000-74,999 and >\$75,000 into one category, but results did not change.

Table 4 shows the factors associated with use of a top-tier highly effective method (LARC or sterilization) at 3 months postpartum. Age older than 35 (OR 2.94, 95% C.I. 1.07-8.06), and parity greater than 4 (OR 3.17, 95% C.I. 1.20-8.33) are significantly associated with use of a highly effective method. These women are perhaps both more likely to have completed childbearing and want a permanent method of contraception, and to be considered ideal candidates for these methods by their providers. Yet even when these and other factors including insurance status, relationship status, future childbearing desires, and previous use of LARC are taken into account, receipt of prenatal counseling is also significantly associated with use a highly effective method (OR 2.04, 95% C.I. 1.11-3.75). Additionally, postpartum counseling does appear to increase the odds of using a highly effective method, but the coefficient is not statistically significant ($p=0.06$).

Finally, we compare methods desired at 6 months postpartum to the methods women were using pre-pregnancy . Table 5 shows the distribution of women who moved up, stayed level, and moved down in the hierarchy of method efficacy. All women in the sample desired contraception postpartum, and among those women who were using no method at the time unintended pregnancy occurred, 77.6% desired top-tier methods (sterilization and LARC). Among those women who were using less effective methods pre-pregnancy, 88.2% desired a more effective method postpartum, with 75% desiring top-tier methods. Only 11.8% wanted to remain using a less effective method. For women using a hormonal method at the time of pregnancy, 78% wanted to be using a top-tier method postpartum, 18.4% wanted to remain using a hormonal method, and 3.5% expressed a desire for a less effective method. Overall,

86% of women expressed a desire to be using a method more effective than that which they were using at the time unintended pregnancy occurred, and 76.6% desired a top-tier method.

Discussion

In our sample of women who experienced an unintended pregnancy either while using a contraceptive method, or while using no method without intending to conceive, only half were using a more effective method at 3 months postpartum. Additionally, only a quarter of these women were using a top-tier highly effective method. Having experienced a previous unintended pregnancy, these women are at particularly high risk for experiencing another subsequent unintended event. Yet in many cases they either remain using the same methods that did not work for them the first time, or obtain methods with a similar degree of user-dependence, or worse, end up with an even less effective methods than before.

Our finding that receipt of postpartum contraceptive counseling is associated with use of a more effective method at 3 months postpartum compared to that being used pre-pregnancy points to the role of healthcare provider interaction and contraceptive counseling in helping women at high risk of repeat unintended pregnancy avoid such an event. Although receipt of postpartum counseling was reported by the majority of women in the sample, interactions are likely to have varied considerably with respect to depth and quality. The majority of women who moved up in method efficacy postpartum moved either from no method to less effective or hormonal methods, or from a less effective method to an hormonal method, suggesting that the postpartum check-up is likely to be an important forum in which these methods were prescribed or obtained as well as discussed. Indeed, a recent study examining

the association between postpartum contraception and inter-pregnancy intervals found that receipt of contraception at the first postpartum clinic visit was associated with avoidance of short inter-pregnancy intervals (Thiel de Bocanegra et al. 2013).

An important question arising from these results, however, is why providers do not appear to be providing top-tier methods at the postpartum check-up with much greater frequency. After all, these are women for whom user-dependent methods have not worked well, or who have likely experienced difficulty in obtaining a method, using it regularly, or deciding which method to use in the past. Our finding that receipt of prenatal contraceptive counseling is associated with higher likelihood of obtaining a top-tier method even when childbearing preferences, age, parity, and previous LARC use are taken into account appears to offer a clue. This result points to the particular importance of prenatal counseling in the discussion and planning of highly effective but expensive methods, which depend upon provider interaction to schedule and obtain. For women with public insurance in particular, prenatal counseling is likely to be practically essential to overcoming both financial and administrative barriers postpartum by ensuring that the relevant forms are signed in a timely manner in the case of postpartum sterilization, or that plans are put in place to order the method, schedule pre-insertion checks, and then schedule method insertion before insurance coverage expires, in the case of LARC methods. Although previous literature has shown no conclusive benefit of contraceptive counseling in reducing unintended pregnancy (Lopez, Hiller and Grimes 2010; Moos, Bartholomew and Lohr 2003; Schunmann and Glasier 2006), several recent studies have demonstrated an association between receipt of prenatal care and uptake of more effective contraceptive methods including LARC (Hernandez et al. 2012; Schunmann and Glasier 2006; Simmons et al. 2013).

Recent research has also highlighted the potential of LARC methods to reduce unintended pregnancy (Blumenthal, Voedisch and Gemzell-Danielsson 2011; Stevens-Simon, Kelly and Kulick 2001; Trussell and Wynn 2008). Uptake of LARC methods in the United States is surprisingly low, although the proportion of contracepting women using LARC has increased from 2.4% in 2002 to 8.5% in 2009 (Finer, Jerman and Kavanaugh 2012). Findings from the Contraceptive CHOICE project have also demonstrated that LARC uptake can be significantly improved when methods are offered free and when high-quality contraceptive counseling is provided (Madden et al. 2013; Secura et al. 2010). Importantly, we find that interest in highly effective methods among the high-risk women in our sample far exceeds their use postpartum. Across women using all methods, 35.1% desired a sterilization postpartum, but only 13.8% actually obtained it. Additionally, 41.5% desired LARC, but only 12.4 % were actually using it at 3 months postpartum. The fact that only 50% of the sample reported discussion of contraception the prenatal period is likely to contribute to the low levels of use of top-tier methods in the postpartum period, both due to lack of education, and lack of financial feasibility due to insurance expiration by the time methods were finally discussed.

Insights gleaned from our in-depth interviews demonstrated that financial barriers, such as lack of insurance coverage, inability to pay out-of-pocket-costs or to afford a co-pay were the most important reason for being unable to access a desired method. Other factors mentioned included provider barriers, practice norms, and difficulty getting to clinics and keeping scheduled appointments. Interest in highly effective methods clearly exists, but it appears that sufficient advantage is not being taken of the opportunity to provide it.

Additionally, although we were not able to assess them in our study, structural barriers to integrating contraceptive services into postpartum care are also likely to play a role in the availability of highly effective methods. Previous research in the abortion care setting has highlighted that despite most clinics offering contraceptive services, limitations such as the type of health insurance clinics accept, administrative burdens levied by insurance companies in making a wide range of methods available at reasonable cost, and way in which providers perceive such barriers all potentially limit actual service availability (Kavanaugh, Jones and Finer 2010, 2011).

The mix of contraceptive methods being used postpartum following unintended pregnancy suggests that providers are not successfully eliciting a history of unintended pregnancy from their patients, or that they are simply not asking about it. Because these women have had live births rather than abortions—where an assumption of unintendedness is usually implicit—their feelings about the pregnancy might be taken less seriously by providers, or not asked about at all. However, preventing a repeat unintended pregnancy among these women is equally (if not more) important, especially given potential negative socioeconomic consequences, increased strain on relationships and social networks, and physical health consequences for the woman herself if another pregnancy occurs too quickly. That these women's unintended pregnancies result in live births may also reflect lack of access to abortion, especially in light of recent legislation increasing barriers to obtaining abortion care in Texas.

Our study provides a rare opportunity to compare methods of contraception being used before and after an unintended pregnancy, and to assess not only method use, but also

method desire. However, there are several limitations to note. First, our small sample size is relatively small, and lacks sufficient variation in which to test factors associated with desired for (rather than use of) a more effective method. Second, our study is set in Austin and El Paso, Texas, and so is not representative of the healthcare system infrastructure or patient population of the United States, limiting the generalizability of our results. Third, we are in relatively uncharted territory with respect to assessing the novel concept of method desire and are relying upon our in-depth interviews, and information gathered from previous experience in El Paso and Brazil to create valid constructs. Fourth, we rely on women's self-reports of pregnancy intentions and contraceptive use prior to pregnancy, and their own recollections of pre- and postnatal counseling.

Our findings have several implications for practice with the potential to increase the use of highly effective methods of contraception and reduce repeat unintended pregnancy among women whose unintended pregnancy ended in a live birth. First, providers should endeavor to enquire about the intention status of the current pregnancy during prenatal care. Second, our findings support the importance of both prenatal and postpartum contraceptive counseling in helping women to obtaining a better method of contraception. Lastly, prenatal counseling is likely to be important in setting plans in place to ensure the most effective methods of contraception are available to women as soon as possible postpartum. Interest in such methods exists, and the opportunity provided by pregnancy to both interact with women and encourage the use of top-tier methods, as well as the freedom to offer such methods while insurance coverage is in place should not be missed.

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TABLE 1—Sample Characteristics at 3 Months Postpartum (n=299)

	Frequency
City	
Austin	57.9
El Paso	42.1
Insurance Status	
Public	86.6
Private	13.4
Future Childbearing Plans	
Want no More	59.5
Want More	40.5
Parity	
1-2	55.2
3	21.7
4+	23.1
Age	
18-24	25.1
25-29	43.5
30-34	18.7
35-44	12.7
Education	
Less than High School	34.8
Completed High School	32.1
More than High School	33.1
Ethnicity	
Hispanic	79.12
African American	9.76
White	11.11
Relationship Status	
Married	35.9
Cohabiting	35.6
In a relationship	11.7
Single	16.8
Income	
<\$10,000	41.3
\$10,000-14,999	13.6
\$15,000-19,999	14.7
\$20,000-24,999	9.4
\$25,000-34,999	6.6
\$35,000-49,999	6.6
\$50,000-74,999	2.5
>\$75,000	5.2
Prenatal Contraceptive Counseling	
Yes	51.0
No	49.0
Postpartum Contraceptive Counseling	
Yes	80.9

No	19.1
Previous use of LARC	
Yes	9.0
No	91.0
Method Using When Pregnancy Occurred	
Hormonal	38.1
Less Effective Method	45.5
No Method	16.4
Method Using at 3 months Postpartum	
Tubal or Vasectomy	13.8
LARC	12.4
Hormonal	30.2
Less Effective Method	43.6
Method Desired by 6 months Postpartum	
Tubal or Vasectomy	35.1
LARC	41.5
Hormonal	15.7
Less Effective Method	7.7

TABLE 2—Distribution of Methods Used Before and After Unintended Pregnancy (n=299)

Method Used Before Pregnancy Occurred	Method Using at 3mo Postpartum				Total
	TL or Vasectomy	LARC	Hormonal	LEM	
Hormonal (n=114)	16.7	14.0	32.5	36.8	100.0
LEM (n=135)	14.8	11.1	25.9	48.1	100.0
No Method (n=49)	4.1	12.2	36.7	46.9	100.0

LEM = less effective method (as defined in the main text)

Figures in percentages

TABLE 3—Factors Associated with Use of a More Effective Method at 3 Months Postpartum Than That Being Used at the Time of Conception (n=299)

	Odds Ratio	95% C.I.
City		
Austin	ref	ref
El Paso	0.83	0.46-1.50
Insurance Status		
Public	ref	ref
Private	1.30	0.46-3.72
Prenatal Counseling		
Yes	1.36	0.80-2.30
No	ref	ref
Postpartum Counseling		
Yes	2.37**	1.20-4.71
No	ref	ref
Future Childbearing Plans		
Want no More	ref	ref
Want More	0.84	0.44-1.61
Parity		
1-2	ref	ref
3	1.01	0.49-2.10
4+	2.04	0.89-4.67
Age		
18-24	0.93	0.47-1.84
25-29	ref	ref
30-34	0.55	0.25-1.21
35+	1.54	0.62-3.85
Education		
Less than High School	ref	ref
Completed High School	1.61	0.84-3.10
More than High School	1.67	0.78-3.58
Ethnicity		
Hispanic	ref	ref
African American	1.44	0.54-3.84
White	1.57	0.62-3.95
Relationship Status		
Married	ref	ref
Cohabiting	0.74	0.40-1.40
In a relationship	1.04	0.41-2.61
Single	0.94	0.41-2.17
Income		
<\$10,000	ref	ref
\$10,000-14,999	1.34	0.58-3.09
\$15,000-19,999	1.13	0.50-2.59
\$20,000-24,999	0.94	0.36-2.46
\$25,000-34,999	0.96	0.32-2.88
\$35,000-49,999	0.73	0.22-2.44

\$50,000-74,999	0.11	0.01-1.35
>\$75,000	0.56	0.10-3.11

**p<_0.01

TABLE 4—Factors Associated with Use of a Highly Effective Method (LARC or Sterilization) at 3 Months Postpartum (n=299)

	Odds Ratio	95% C.I.
City		
Austin	ref	ref
El Paso	0.84	0.42-1.67
Insurance Status		
Public	ref	ref
Private	3.03	0.93-9.82
Prenatal Counseling		
Yes	2.04*	1.11-3.75
No	ref	ref
Postpartum Counseling		
Yes	2.41*	0.98-5.97
No	ref	ref
Future Childbearing Plans		
Want no More	ref	ref
Want More	0.84	0.40-1.79
Parity		
1-2	ref	ref
3	1.23	0.51-2.99
4+	3.17*	1.20-8.33
Age		
18-24	1.44	0.62-3.38
25-29	ref	ref
30-34	1.49	0.59-3.78
35+	2.94*	1.07-8.06
Education		
Less than High School	ref	ref
Completed High School	1.36	0.64-2.90
More than High School	1.06	0.41-2.72
Ethnicity		
Hispanic	ref	ref
African American	0.75	0.24-2.36
White	0.61	0.41-2.72
Relationship Status		
Married	ref	ref
Cohabiting	1.36	0.65-2.84
In a relationship	1.37	0.44-4.27
Single	1.22	0.43-3.50
Income		
<\$10,000	ref	ref
\$10,000-14,999	1.45	0.53-3.99
\$15,000-19,999	2.52	0.97-6.59
\$20,000-24,999	1.45	0.48-4.40
\$25,000-34,999	1.71	0.49-5.90
\$35,000-49,999	1.60	0.39-6.57

\$50,000-74,999	0.73	0.21-10.15
>\$75,000	0.64	0.85-4.64

*p<_0.05

TABLE 5—Distribution of Method Desired at 6 Months Postpartum vs. Method Used when Unintended Pregnancy Occurred (n=299)

Method Used Before Pregnancy Occurred	Method Desired at 3mo Postpartum				Total
	TL or Vasectomy	LARC	Hormonal	LEM	
Hormonal (n=114)	41.2	36.8	18.4	3.5	100.0
LEM (n=136)	30.9	44.1	13.2	11.8	100.0
No Method (n=49)	32.7	44.9	16.3	6.1	100.0

LEM = less effective method (as defined in the main text)

Figures in percentages