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Frustrated Demand for Sterilization among Low-Income Latinas in El Paso, Texas

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In the United States (US), female sterilization is the most widely used method among parous contraceptive users (Mosher and Jones 2010). Moreover, low-income and minority women, particularly black women and Latinas, make greater use of female sterilization than other groups. According to the recent cycle of the National Survey of Family Growth, 50% of black women and 41% of Hispanic women with at least one child and who were using contraception reported female sterilization as their current method compared to 35% of whites (Mosher and Jones 2010).

Recent research has approached the use of female sterilization among low-income minority women in the US from two quite different perspectives. In the first, the main concern is whether the procedure is over-used in these groups, either because providers are more likely to counsel such women about the method (Downing, LaVeist et al. 2007; Borrero, Schwarz et al. 2009), or because these women are not fully informed regarding the alternatives to sterilization and the reversibility of the procedure (Borrero, Abebe et al. 2011). In addition, low-income and minority women, who may only be insured around pregnancy, may feel pressured to get a sterilization postpartum as they will be unable to consistently access contraception following delivery (Borrero, Schwarz et al. 2007; Bass and Warehime 2009).

An opposing concern raised in other research on female sterilization in the US is that there is a frustrated or unmet demand for female sterilization among low-income minority women

due to barriers these women face accessing the procedure. Among these are the requirements for Medicaid funding of sterilization, which in addition to income eligibility, include being age 21 or over and having signed a consent form 30 days in advance of the procedure. In a study of women who desired postpartum sterilization at three urban hospitals, Davidson and colleagues (1990) found that among pregnant women who wanted a sterilization, more than 40% were not sterilized within 10 months of delivery. The main reasons for not obtaining a sterilization (cited by 32% of respondents) were bureaucratic and logistical barriers such as delivering before the consent form's 30-day waiting period had expired and unavailability of providers or operating rooms. More recent research has continued to find that the health care system serves as a barrier to obtaining the procedure (Zite, Wuellner et al. 2005; Zite, Wuellner et al. 2006; Seibel-Seamon, Visintine et al. 2009; Thurman, Harvey et al. 2009). For example, a study conducted in San Antonio, Texas found that 31% of women requesting a postpartum tubal ligation did not receive the procedure, with the main reasons being a lack of funding and not having a valid Medicaid consent form (Thurman, Harvey et al. 2009).

In addition to health care system barriers, provider influences also affect women's ability to obtain sterilizations. In a qualitative study of low-income minority women in Chicago, Gilliam and colleagues found that providers dissuaded women from seeking a sterilization for reasons that were unrelated to their pregnancy or medical history (Gilliam, Davis et al. 2008). There is also evidence from a nationally representative survey of obstetrician/gynecologists that patient and provider characteristics influence a physician's advice about and provision of sterilization. In this study, 42% of responding physicians said they would attempt to dissuade a patient from having a postpartum sterilization in a hypothetical case in which the patient was about to have her second child, and she and her husband were both in agreement about not having anymore children. That percentage fell to 22 in the case where the patient was having her third child, and 10 in the case where the patient was 36 years old. Also, the likelihood that a doctor would attempt to dissuade a woman from having a postpartum tubal ligation varied with the doctor's level of religiosity, as well as with the patient's age, parity, and whether her husband or partner was in agreement (Lawrence, Rasinski et al. 2011).

In this paper, we seek to find out what motivates low-income Latina women to want to be sterilized, as well as the barriers they encounter in seeking to obtain the procedure in a large border community. First, we use data from a prospective study of oral contraceptive users in El Paso, Texas, in which we found that a significant number of women wanted no more children and would prefer to be sterilized. In this quantitative analysis, the questions we address are how many women wanted no more children, how many wanted to be sterilized, and what factors were associated with wanting a sterilization? Next, we use semi-structured and in-depth interview data from a sub-sample of the women in the original study who said they wanted a sterilization, and whom we re-contacted 18 months after the last interview of the prospective study. Here, we address three questions: 1) How many had obtained the procedure? 2) Among women who had not obtained the procedure and still wanted one, what were their reasons for wanting to be sterilized? 3) What prevented women in this low-income Latina community from obtaining a sterilization? In the discussion, we consider the

ethical and practical costs of failing to meet the demand for a permanent method of contraception in this population.

Data and Methods

Prospective Study of Pill Users

The Border Contraceptive Access Study, conducted in El Paso from December 2006 to December 2008, aimed to find out how prescription versus over-the-counter access affected Latina women's oral contraceptive use. The study enrolled a total of 1,046 oral contraceptive) users - 532 women who obtained pills in family planning clinics and 514 who obtained pills over the counter from pharmacies in Mexico – using flyers, presentations and referrals. These recruitment strategies are described in detail elsewhere (Potter, White et al. 2010). Participants completed a series of four face-to-face interviews at three-month intervals. We were able to re-contact and complete the final Time 4 interview with 941 women (90% of the baseline sample).

This analysis draws from data collected in the baseline and nine month follow-up (Time 4) interviews with 801 women who had at least one child. In these interviews, we collected information on the woman's background, social networks and bi-national relations, motivation for choosing her pill source, pill-use knowledge and practice, and childbearing intentions. Women who did not want any more children at the Time 4 interview were asked whether they wanted to end childbearing with female sterilization. Specifically, we asked: "Do you want to get a sterilization (get your tubes tied) so you won't be able to have more children?"

As a first step in this analysis, we assessed the proportion of pill users with one or more children who reported that they wanted to limit childbearing at the baseline and Time 4 interviews, as well as the proportion wanting a female sterilization in the Time 4 interview by the following sociodemographic characteristics: age, parity, marital status, educational attainment, country of birth and last year of education US health insurance coverage, and pill source. The last three of these variables were specific to this setting and study design. The combination of country of birth and country of last year of education is a good proxy for acculturation in this sample and is strongly related to language use. Having US health insurance is likely indicative of access to a full range of contraceptive methods including sterilization, and we expected that women in this sample of pill users who had insurance would be less likely than others to be using the pill when they had a preference for another method. Finally, since there were differences in the measured socioeconomic characteristics between clinic versus pharmacy users, we wanted to adjust for any unmeasured differences that might exist between these two arms of the study. After examining the distribution of the three dichotomous outcomes by each of these variables, we then used logistic regression to analyze the covariates associated with wanting a sterilization, and report on a parsimonious model of significant predictor variables.

Sub-Sample of Women Wanting a Sterilization

To learn more about the factors that led these women to want to permanently end childbearing, as well as the barriers that may have prevented them from accessing

sterilization, we re-contacted a subset of the prospective study participants approximately 18 months after the final interview. In order to limit this sub-sample tow women who had a reasonable chance of obtaining a sterilization in a conservative medical environment, we only attempted to re-contact women who met the Medicaid age requirement (at least 21 years old), and had two or more children. We excluded women with only one child since there only 21 in our sample who wanted a sterilization, and because sterilization is infrequent in the US among women with just one child (Mosher and Jones 2010). Additional restrictions were that the respondent had provided written informed consent to be re-contacted for future interviews, and that the respondent was among the 98 percent of the sample that had declared themselves to be of Hispanic origin or Latina. Of the 285 women we attempted to re-contact, we were able to reach 153 women.

In anticipation of the fact that some women might have obtained a sterilization since the Time 4 interview or changed their minds about wanting more children, we screened women using a short series of questions about their childbearing intentions, current contraceptive method and whether they still wanted a sterilization. From this screening we identified five groups of women: 1) non-pregnant women who still wanted a sterilization and whose partners had not gotten a vasectomy (n=139; 91%); 2) women who had gotten a sterilization (n=6); 3) women whose partners had gotten a vasectomy (n=2); 4) pregnant women (n=1); and 5) women who had changed their minds about wanting a sterilization (n=4). Thus, all told, 152 women agreed to participate. However, in this study, we focus on women in the first three categories since our main interests are women's reasons for wanting a sterilization, and the barriers they faced in obtaining one. Additionally, we stopped interviewing women who still wanted a sterilization after reaching a target sample size of 120. These interviews were carried out between March and June 2010.

Using a combination of both closed and open-ended questions, we asked the 120 women who still wanted a sterilization about their reasons for wanting to end childbearing and for wanting a sterilization, perceptions of side effects and reversibility of the procedure, and any attempts they made to get a sterilization during or since their last pregnancy. To assess whether financial difficulties are a barrier to future childbearing and contraceptive choice, we also asked women whether winning $20,000 in the lottery would cause them to change their minds about having more children and if they would use one-half of these winnings to pay for a sterilization. Finally, we assessed women's current contraceptive method use, knowledge of and interest in other contraceptive methods other than sterilization, and current health insurance status. All interviews were recorded. Responses to the close-ended questions were entered into EpiData. Responses to the open-ended questions were transcribed and reviewed for accuracy against the original recordings. Our analysis draws upon common themes that were identified in women's responses as to why they wanted to obtain a sterilization and why they have been unable to do so.

In addition to these semi-structured interviews, we conducted in-depth interviews with women who had obtained a sterilization or whose partner had a vasectomy to learn more about their experiences. We asked these participants about the timing and location of the sterilization or vasectomy, the process followed for getting the procedure, and overall satisfaction with the outcome. We were able to re-contact and interview five of the six

women who reported a sterilization, and both of the women whose partner had a vasectomy. Six of these seven interviews were completed in-person and the interviews recorded and transcribed; the remaining interview was conducted via phone due to repeated difficulties in arranging an in-person meeting, and the interviewer took detailed notes of the conversation. The in-depth interviews with women were carried out between May and June 2010. All aspects of this study received IRB approval from the appropriate institutions.

Results

Table 1, based on the prospective study of pill users, shows the proportion of the 801 parous women who stated that they planned to have no further children at the baseline interview and the even greater proportion who said they wanted no more children at the Time 4 interview. These proportions varied across sociodemographic characteristics. Not surprisingly, there were large differences according to age and parity, with a higher percentage of older women and those who had a greater number of children reporting they did not want additional children. In addition, a higher percentage of women who were currently or previously married, those with less education, those born and educated in Mexico and women without US health insurance stated they did not want additional children.

Of all parous women in this sample of pill users, 46% declared they would like to be sterilized in the Time 4 interview, which represents 72% of all those women not planning on having additional children. As with the proportion not wanting additional children, the proportion wanting a sterilization varied sharply according to age, parity, educational attainment, country of birth and education, and US insurance coverage.

Results from the multivariable-adjusted logistic regression revealed that only age, parity, and country of birth and education were significant predictors of women's desire to be sterilized (Table 2). Women over age 35 and those with three or more children were more likely than younger and lower parity women to prefer sterilization over their current method. In addition, women who completed their education in Mexico were more likely than those who completed education in the US to want a sterilization, even after adjusting for age and parity.

Experiences of Women who Still Wanted a Sterilization

We first examined the current contraceptive method use of the 120 women who still wanted a sterilization and completed the semi-structured interview. Nearly two thirds (63%) were using pills as their current form of contraception. Other women were using condoms (11%), the IUD (10%), and other hormonal methods (7%). Twelve women reported having had a pregnancy since the Time 4 interview, although as noted above only one was pregnant at the time of the follow-up. Of the twelve, all but one was using the pill or patch prior to becoming pregnant and reported method failure or incorrect use as the reason for pregnancy.

The reasons women gave for not wanting to have any more children are shown in Table 3. Most simply said they had had all the children that they wanted; some added that they had health- or age-related reasons for not wanting more children, conflicts with work or

education, or were not able to afford more children, among other reasons. When asked whether winning $20,000 in the lottery would lead them to change their minds about having more children, 117 (97%) said it would not.

Many of the reasons respondents gave for wanting to be sterilized were often closely related to their stated reasons for not wanting to have more children. Additionally, many women mentioned concerns about the effectiveness or side effects related to their current contraceptive method, and those using pills said that they felt they had been using the method for too long. The following quotations are representative of these ideas:

> "Well, because it's permanent, because I don't have to keep checking [it] … accidents happen and it [the IUD] can move, and then there would be a pregnancy and that's what you don't want." (38 year-old woman with 2 children)

> "Well, because you can forget and suddenly you are pregnant, because I've gotten pregnant twice on the pill. Even though I don't forget [to take] them, I am still a little afraid of getting pregnant." (37 year-old woman with 5 children)

> "Because it wouldn't be hormones any more, it wouldn't be more chemicals in the body. It would be a way, not a natural way, but not invasive like the pill, that you have to keep taking. (38 year-old woman with 3 children)

> " …because with the pill I run a risk, more of a risk than sterilization. I wouldn't have to be always bringing the pills from Mexico. At some point the person who brings them for me won't be able to go. Maybe they won't be able to cross. I don't go here [clinics in El Paso] because they won't give them to me because I'm over 40 years old. (45 year-old woman with 4 children)

In contrast to women's concerns about side effects of other contraceptive methods, women expressed few concerns about secondary effects of female sterilization. Moreover, the majority of women was aware that the procedure was considered permanent and that there was little that could be done if a woman changed her mind about having children after getting a sterilization. Although some women mentioned that a sterilization could be reversed, particularly if the tubes were "tied" rather than cauterized, most stated that this was very expensive and would not provide any guarantees that a woman could become pregnant again.

While most women clearly expressed their reasons for wanting a sterilization and seemed intent on getting one, a considerable fraction (42, 35%) had not talked to a health provider about sterilization during or since their last pregnancy. Among these women, some mentioned they were unsure about ending childbearing at the time of their last pregnancy but have since decided they do not want another child and would like to get a sterilization. A few stated that their husbands want more children or do not want them to have a sterilization. Others did not offer specific explanations for not talking to a provider about getting a sterilization.

Of the women who did talk to a provider about sterilization, most reported that they did so during their last pregnancy. Of these women, about one-fifth received counseling about sterilization, while a minority was put on a waiting list for the procedure and even fewer

signed consent forms. More than half reported that they took no further steps to get a sterilization after talking with their health care provider. While in the hospital following their delivery, twenty-four women talked to a provider about sterilization. The majority only talked with their doctor or nurse and took no additional steps. Only two of them received counseling and four were put on a waiting list. After their last delivery, just twenty women had talked to a provider about sterilization, which resulted in nine of them getting on a waiting list for the procedure (data not shown).

When women who had talked to a doctor or nurse about sterilization were asked why they did not have the procedure following delivery, the most common reason reported was that funds were not available to cover it, as the quotes below illustrate:

> "Well, I delivered, and I asked if they were going to sterilize me, and they told that there weren't any funds, but I had already signed the form." (34 year-old woman with 4 children)

> "They told me there were no funds; previously there were funds for that but now there aren't. [They told me] that I would have to pay for it myself before I delivered in order for them to do it." (35 year-old woman with 6 children)

As indicated in the second quote, some women were also told that they could pay for the procedure themselves, but would have to pay the full cost prior to their delivery; women reported the price for the procedure ranged from $800 to $2000 – outside their economic means. In addition, women reported barriers related to the Medicaid consent form, such as requesting sterilization too late in pregnancy to fulfill the 30-day waiting period, not having the form available at delivery, or delivering before the waiting period had passed.

Another common theme that emerged was that a woman's doctor or nurse said they would not perform a sterilization because she was "too young," would want more children in the future, or had not been married to her partner long enough. However, as the following quotations reveal, women across a range of ages were told they were "too young" to get a sterilization:

> "Yes, [the doctor said that] I was still young and that I may want to continue having more children because I had 3 girls and he already told me that often people change their minds and that they want to try for a boy, you understand. [Interviewer: And how old were you?] 23. (37 year-old woman with 3 children)

> "No, because when they asked me how old I was, how long I'd been married, how many kids I had, they said it wasn't very likely that they'd operate. [And they didn't] …because I had been married for 5 years and I was 30 years old. That is, they told me that I was very young and perhaps it [the marriage] wouldn't last…and whether a joke or true, they didn't operate." (38 year-old woman with 3 children)

Despite having been told she was "too young," another woman mentioned that her doctor said she could still have a sterilization if she paid for it herself, but the nurse would not tell her the cost of the procedure.

Other reasons women gave for not getting a sterilization at their last pregnancy included changing their minds because they were scared of having surgery, not discussing sterilization with their husband beforehand or their husband not agreeing with them about ending childbearing and getting a sterilization, and pregnancy- or delivery-related complications (e.g. pre-eclampsia). These reasons were mentioned by only a few women.

Given the difficult economic circumstances of most women in the sample, we were surprised to learn that a substantial percentage of them would be willing to spend a large amount of money in order to get sterilized. When asked whether, in the event that they won a $20,000 lottery, they would be willing to spend $10,000 in order to obtain a sterilization, about half said they would.

Experiences of Women who Obtained a Sterilization

Of the 153 women whom we screened for the follow-up survey, only six reported having obtained a sterilization. The five we interviewed described a range of circumstances that enabled them to get the procedure. Two had unplanned pregnancies and were able to get a sterilization postpartum. Although one was covered by Medicaid during her pregnancy and did not report difficulties with paperwork, provider willingness or funding, the other stated she was not offered enrollment in a program that would cover her sterilization and was told if she wanted a sterilization she would have to pay for it herself. Prior to delivery, she paid $800 for the procedure. At the time of her delivery, the providers were not aware she wanted a sterilization; only after insisting on the procedure and showing her receipt of payment was she able to get the postpartum sterilization.

Three women had interval sterilizations. One was referred to the main provider of sterilization services, asked to show proof of income and residency in the area, and was able to obtain a sterilization without being put on a waiting list. Another woman had been told in the past that she was too young to get sterilized. She had several health problems while using pills, experienced an unplanned pregnancy, and, following the delivery of her third child, continued pill use. According to the woman, after noting a spike in her blood sugar, her health providers advised her to stop taking pills immediately and stated that if she wanted a sterilization she would be able to get one and not have to go on a waiting list. Two weeks following this discussion, she got the sterilization. In the third case, the woman crossed into Mexico to get the sterilization after being told the estimated cost for the procedure in El Paso would be between $2000 and $3000. Through her sister, she was referred to a private doctor in Ciudad Juárez, who performed the sterilization for $150. All were very satisfied with having had the procedure.

Experiences of Women and Partners with Vasectomy

The two women whose partners had vasectomies relayed experiences that were similar to one another, explaining that their partners decided to get vasectomies when they had completed their families; they had three and four children respectively. In one case, the woman’s husband believed that she had always been responsible for contraception and so decided he would now get a vasectomy. At the time, he was covered by insurance in Mexico, and did not have to pay for the procedure, which he obtained in Ciudad Juárez. In

the other case, the husband was concerned about his wife's difficulties with her previous deliveries. After being advised by a physician that a vasectomy was a simpler procedure than female sterilization, and reassured by a male friend that the procedure and recovery were easy and would not affect sexual functioning, he also decided to get a vasectomy. The couple visited several private physicians in Ciudad Juárez and, following up on a referral from a friend, selected a private surgeon for the procedure. Both women (and their partners) were very satisfied with their decisions.

Discussion

In our initial study of pill users, we found a large proportion of women who did not want to have more children and wanted a sterilization. Some of the factors that were associated with wanting to end childbearing and get a sterilization (i.e., older age and higher parity) are not surprising, and other characteristics, such as being born and educated in Mexico, may reflect the fact that women with the closest ties to Mexico are especially likely to prefer female sterilization due to contagion effects resulting from the very high reliance on the method in their country of origin (Palma Cabrera and Palma 2007). More surprising was the fact that when we re-interviewed a sub-sample of these women approximately a year and a half later, the vast majority still had not obtained a sterilization. This finding provides additional evidence of unmet demand for sterilization among low-income and minority women in the US. Our study also points to several reasons that women in these groups may not be able to get a desired sterilization. Some of these reasons have also been noted in other studies, while others are specific to low-income Latinas in border settings.

One of the main underlying sources of the unmet demand was the limited availability of public funding for sterilization. The financial constraints on providers in El Paso reflect both the limited family planning funding for low-income women in Texas (James, Salganicoff et al. 2009), as well as the impact of the Texas state legislature's reallocation of federal family planning funding to Federally Qualified Health Centers, none of which had the capability of providing surgical sterilization at the time of our study (C. Diaz de Leon, personal communication September 2008). Faced with limited financial resources, organizations that could offer sterilization have had to adopt approaches that permit them to provide family planning services to as large a number of women as possible by mainly offering methods with smaller up-front costs (e.g. hormonal methods) and rationing the small number of sterilizations that they were able to provide by way of waiting lists (C. Diaz de Leon, personal communication September 2008). The importance of subsidized services for this sample of women is reflected in the association between not having health insurance and wanting a sterilization in our regression model; women with insurance who want no more children and prefer sterilization are more likely to have gotten sterilized than women without insurance, and thus, are less likely to be found in a sample of pill users. Without a significant subsidy, most women in our study were unable to pay for a sterilization themselves.

For women who were eligible for subsidized services during their last pregnancy, we also found that the requirement to complete the Medicaid consent form 30 days prior to delivery was a barrier to obtaining a sterilization. Some women either made the request for a

sterilization too late in their pregnancy when they would not have been able to meet the mandatory 30-day waiting period, or delivered before the waiting period had expired. Such problems have also been reported in other studies of low-income women (Davidson, Philliber et al. 1990; Zite, Wuellner et al. 2006; Gilliam, Davis et al. 2008). Note, however, that the 30-day waiting period requirement is a barrier unique to low-income women and not required of women with private insurance. While the waiting period may be designed to ensure—appropriately—that low-income women are not rushed into the decision to be sterilized, more effort is needed to streamline the process of obtaining timely consent and make sure the paperwork is available on the day of surgery.

Another key barrier for women obtaining a desired sterilization was their providers' ad-hoc criteria, particularly those surrounding age and parity. Women were often told that they were too young or would want to have more children later, even when they had unambiguous and compelling reasons for wanting to end childbearing and a strong preference for sterilization over their current method. This result is consistent with findings noted by Zite (2006) and Lawrence (2011) that providers' age and parity criteria may contribute to women not obtaining a desired sterilization. It also adds to a growing body of literature showing that that providers use restrictive, rather than evidence-based, criteria in deciding which method to offer women (Stanwood, Garrett et al. 2002; Harper, Blum et al. 2008), thereby raising questions as to how well low-income and minority women may be able to access highly effective methods of contraception and realize their childbearing preferences.

The fact that only a few women in our follow-up study had obtained a permanent method of contraception is a measure of the impact of these barriers on the availability of interval sterilization in this community. Indeed, only one of the five sterilized women we interviewed seemed to follow the standard protocol for obtaining an interval procedure. In addition, none of these women availed themselves of Texas' Medicaid family planning waiver program, possibly a result of a lack of awareness of this program as well the residency restriction. It also bears noting that, in this setting, unauthorized migrants find themselves doubly disadvantaged: they do not qualify for most of the programs that fund sterilizations (Thurman, Harvey et al. 2009), and they are not at liberty to cross back and forth between the US and Mexico where sterilization and vasectomy are available free of charge in public clinics, or at a much lower cost in the private sector.

Our results also point to the limited options and potential risks faced by women who are unable to obtain a sterilization. Most of the women interviewed were still using pills a year and a half after declaring that they would like to be sterilized. A small fraction of women was using an IUD and only two had partners who had gotten a vasectomy; many of the remaining women were relying on condoms or using no method at all. The use of these less effective methods likely reflects women's concerns about being on the pill for an excessive length of time (Guendelman, Denny et al. 2000; Gilliam, Warden et al. 2004; Rivera, Mendez et al. 2007; Grossman, Fernandez et al. 2010), combined with an unwillingness to use long-acting reversible methods or an inability to access these methods (as well as vasectomy) due to the financial constraints on subsidized family planning services in the community (White, Hopkins et al. 2011). In any case, the use of less-effective or no methods certainly is not a reflection of ambivalence about continued childbearing in this population,

as evidenced by the strength of women's motivations and further underscored by the very small number of women who changed their mind about getting a sterilization. However, such contraceptive practices place women at risk for a future unintended pregnancy. This risk is indeed real as several women in our study had become pregnant since declaring they wanted a sterilization, and other studies have found high rates of pregnancy in the year following delivery among women who wanted a postpartum sterilization but did not obtain one (Thurman and Janecek 2010).

Our study has several limitations. It focuses on interest in and barriers to sterilization among a particular group of women in one setting, and therefore may not reflect the experiences of low-income and minority women elsewhere. Second, we were unable to re-contact a considerable proportion of the women we selected from our original sample. Finally, this study provides a window on only a portion of the women who would like to be sterilized in the community, and, in particular, does not tell us what fraction of all women who would like to be sterilized eventually obtain the procedure. Nevertheless, we were surprised that such a large fraction of the pill users in our original study would have preferred to be using another method that they believed was both more effective and better for their health.

Despite these limitations, our study raises several important issues and questions. One of the main inferences that can be drawn from our results is that researchers should not assume that a woman's current method is her method of choice, and need to ask users as well as non-users about their method preferences. Nor should they assume that the higher prevalence of sterilization among low-income and minority women necessarily reflects misinformation about their contraception options and vulnerability to targeted medical counseling.

Furthermore, our study provides insight into the structural factors underlying contraceptive inequity (Gillespie, Ahmed et al. 2007) and disparities in rates of unintended pregnancy among Latina women in underserved communities. In doing so, it also draws attention to the economic implications of failing to increase sterilization access for low-income and minority women and raises questions regarding reproductive rights for these groups in the US. Although female and male sterilization have higher upfront costs than some other methods, in the long run these are more cost-effective forms of contraception (Trussell 2010) and certainly are lower in cost than an unwanted birth that could result from the failure to provide these methods (Rodriguez, Edelman et al. 2008). Finally, the inability of some women to obtain a desired sterilization because of their immigrant status or income lies in opposition to the long-standing presumption that all women have the right to access their preferred method in order to achieve their reproductive goals.

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Table 1

Proportion who want no more children and who want a sterilization among parous women using oral contraceptives at baseline interview.

	Sample n	Want no more children at Baseline %	Want no more children 9 months later %	Want a sterilization 9 months later %
All women with one or more children	801	55.7	64.5	46.3
Age, years				
18 to 24	159	28.3	34.0	22.0
25 to 34	359	48.8	58.5	43.5
35 to 44	283	79.9	89.4	63.6
Number of Children				
1	161	20.5	23.6	13.0
2	267	48.3	64.4	39.7
3 or more	373	76.1	82.3	65.4
Marital Status				
Single	122	43.4	54.1	38.5
Married/Consensual union	600	57.2	65.7	47.7
Previously married	79	63.3	72.2	48.1
Educational attainment				
Up to 8th grade	179	68.2	74.9	57.5
Some high school	258	58.5	67.1	50.8
High school diploma	208	51.4	61.1	42.8
Some college/college degree	156	42.3	53.2	30.8
Country of birth, last year of education				
Born in US, Educated in US	175	41.1	45.1	28.6
Born in Mexico, Educated in US	290	50.3	60.0	44.1
Born in Mexico or US, Educated in Mexico	336	67.9	78.6	57.4
US insurance coverage				
Has health insurance	115	48.7	52.2	32.2
Does not have health insurance	686	56.9	66.6	48.7
Source of oral contraceptives				
US Clinic	385	48.6	57.4	41.8
OTC in Mexico	416	62.3	71.2	50.5

Table 2

Multivariable adjusted odds Ratios (95% CI) for wanting a sterilization.[1]

	Odds Ratio	(95% CI)
Age, years		
18 to 24	1.00	
25 to 34	1.61	(1.00-2.58)
35 to 44	2.76	(1.66-4.57)
Number of Children		
1	1.00	
2	3.51	(2.05-5.98)
3 or more	8.12	(4.78-13.8)
Country of birth, last year of education		
Born in US, Educated in US	1.00	
Born in Mexico, Educated in US	1.26	(0.80-1.99)
Born in Mexico or US, Educated in Mexico	1.57	(0.99-2.50)
Has health insurance	0.69	(0.42-1.14)

CI – Confidence interval

[1] Desire for sterilization assessed at the final BCAS interview, nine months after baseline (n=801).

Table 3

Frequency of reasons given for not wanting more children (n=120)

	Any reason[1]		Most important reason	
	n	**%**	**n**	**%**
Has all the children she wants	96	80.0	49	40.8
Health/age reasons	51	42.5	30	25.0
Wants to work/go to school	47	39.2	17	14.2
Cannot afford another child	44	36.7	19	15.8
Partner does not want more	21	17.5	3	2.5
Children are a lot of work	11	9.2	2	1.7
Does not have a partner	5	4.2	0	0.0

[1] Participants could provide more than one reason for not wanting more children.