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

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Surgical sterilization is one of the most commonly used contraceptive methods worldwide and in the United States. According to the most recent cycle of the National Survey of Family Growth (NSFG), 30% of married women ages 15 to 44 years have been sterilized (2010). Yet among reproductive aged women, there is considerable variation in the prevalence of sterilization. For example, 34% of Hispanic women and 39% of African American women report sterilization as their current method, compared to 23% of whites. In addition, use of sterilization is more common among low-income women.

Despite the relatively high prevalence of sterilization in the US, there is evidence of unmet demand for the procedure among low-income and minority women. In a study of women who desired postpartum sterilization at three urban hospitals, Davidson and colleagues (1990) found that more than 40% of pregnant women who wanted a sterilization 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 Title XIX consent form (Thurman, Harvey et al. 2009). The authors also found that women who failed to obtain a desired postpartum sterilization had higher

pregnancy rates in the subsequent year than women who did not want a sterilization (Thurman and Janecek 2010).

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 her 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, the likelihood that a doctor would attempt to dissuade a patient from having a postpartum tubal ligation varied with the patient's age, parity, and whether her husband or partner was in agreement (Lawrence, Rasinski et al. 2011). They also found that physicians with higher levels of religiosity were more likely to dissuade a patient from having the operation.

In this paper, we assess the extent of unmet demand for female sterilization in El Paso, Texas using data from a recent prospective study of oral contraceptive users. Then, using semi-structured interviews with a subgroup of women who wanted a sterilization but had been unable to obtain one, as well as interviews with the few women in our sample who were able to obtain a procedure, we identify the motivation of low-income women for seeking sterilization and the barriers that prevent most of them from realizing their contraceptive preference in this setting.

Study Site: El Paso, Texas

El Paso, Texas is among the poorest communities in the country. According to the 2005-2009 American Community Survey, El Paso's median household income of $35,249 ranked 61st among the 70 cities with populations greater than 250,000. Educational attainment is also low with just 19% of residents aged 25 and older holding a bachelor's degree or higher, and 19% have less than a ninth grade education. Approximately 28% are foreign born, and 33% between the ages of 18 and 64 lack health insurance.

Family planning services for low-income women in El Paso are provided through a variety of state-administered federally-funded programs, such as Medicaid Titles V, X, XX, and the Women's Health Program (Texas' Medicaid waiver program). Sterilization, however, is either not an available family planning method or is not a reimbursable procedure under several of these programs (Kaiser Family Foundation and The George Washington University Medical Center School of Public Health and Health Services 2009). Pregnancy and delivery-related health care programs for women, such as Health Care Options, CHIP Perinatal, and Emergency Care, do not pay for a postpartum sterilization because it is considered an elective surgery. Tubal ligations are not reimbursable procedures under Medicaid Title V, but are under Medicaid Title XX. A further challenge is that, due to lack of legal residency, many women in the El Paso area do not qualify for the Women's Health Program.

In addition to these structural limitations resulting from the restrictions of existing funding mechanisms, there were also important shocks to the health care facilities that have historically provided family planning services to low-income women

in El Paso. As a result of budget riders passed by the Texas legislature, beginning in the 2006-07 budget cycle, $25 million of family planning funds for low-income Texans were diverted from the traditional providers to Federally Qualified Healthcare Centers (FQHC's), which had limited experience offering family planning services and lacked facilities to provide sterilization. In June 2009, Planned Parenthood Center of El Paso permanently closed its doors. As a result of these developments and budgetary restrictions, there were increasing limits on the ability of the few state-contracted providers to pay for sterilizations with Title X and XX funds. Thus, the main provider of sterilization services, R. E. Thomason General Hospital (now University Medical Center), set up waiting lists to defer the procedure until funds become available.

Prospective Study of Pill Users – Data and Methods

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 1046 oral contraceptive (OC) users - 532 women who obtained OCs in family planning clinics and 514 who obtained OCs in over the counter from pharmacies in Mexico. Recruitment strategies are detailed elsewhere (Potter, White et al. 2010). Participants completed a series of four interviews at three-month intervals. Only data from the baseline and final (Time 4) interviews are considered in this analysis.

In the hour-long baseline face-to-face interview, we collected information on the woman's background, social networks, and bi-national relations; motivation for choosing their pill source; pill-use knowledge and practice; and childbearing intentions. The Time 4 interview was completed in person approximately nine months after the

baseline interview, and lasted about one hour. In addition to asking women about their recent pill use, in the final interview we again assessed women's childbearing intentions. Women who did not want any more children were asked whether they wanted to end childbearing with female sterilization, whether they would like to have been sterilized at the time of their last delivery, whether they had ever attempted to get a sterilization in the past and, if so, what happened that they were not able to actualize their desire. Between November 2007 and December 2008, we were able to re-contact and complete the Time 4 interview with 941 women (90% of the baseline sample).

As a first step in this analysis, we assess the proportion of pill users wanting to limit childbearing in both 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, and US health insurance coverage, and pill source. We then use logistic regression to analyze the covariates associated with wanting a sterilization, and report on a parsimonious model of key predictor variables.

Prospective Study of Pill Users – Results and Interpretation

Table 1 shows the large proportion of the 801 parous women who stated that they planned to have no further children at the baseline interview (56%) and the even larger proportion who planned to have no more children during the Time 4 interview (65%). These proportions varied across sociodemographic characteristics. Not surprisingly, there were large differences according to age and parity, with older women and those who had a greater number of children more likely to not want additional children. In addition, women who were currently or previously married, those with less education,

those born and educated in Mexico and women without US health insurance were more likely to not want additional children.

Of all parous women in this sample of pill users, 46% declared they would like to be sterilized in the final 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 also varied sharply according to age and education, place of birth and education, and US insurance coverage.

Results from the multivariable-adjusted logistic regression revealed that the above characteristics were significant or nearly 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. Finally there was a sizeable, but not quite significant, association with insurance coverage; women who had US health insurance were less likely to want a sterilization.

In sum, we found the proportion of women who wanted no more children in this sample of parous pill users to be high, considering that the pill is often thought of as a method for spacing births rather than limiting childbearing. This proportion (64%) is larger than that found in NSFG for an equivalent population (OC users, parity ≥1), both for all women and for Latina women in particular. Of the participants who wanted no more children, a large proportion, almost three out of four, reported that they would like to be sterilized rather than continue using the pill. Not surprisingly, in our regression

model, this proportion was associated with age and parity, but it also varied according to whether the woman reported having US insurance coverage, and the country in which she was born and completed her last year of education.

We interpret the relationship with insurance coverage as being due to selection; women with insurance who want no more children and would like to be sterilized are more likely to have gotten sterilized than women without insurance. Thus, they are less likely to be found in a sample of pill users, and pill users with insurance in a sample such as ours are less likely to want a sterilization. The relationship with country of birth and last year of education is less clear. Women with the closest ties to Mexico might be especially likely to prefer female sterilization as a method due to contagion effects resulting from the very high reliance on female sterilization found in their country of origin (Palma Cabrera and Palma 2007). Alternatively they may be more likely to have concerns about side effects and the long-term health effects of continuing to use the pill (see related paper by Shedlin et al.). However, it is also likely that the proportion of unauthorized residents is greater among those who were born in Mexico and, especially, those who completed their last year of education in Mexico. And lack of legal residency prevents access to the Women's Health Program and, in most circumstances, Medicaid funding for postpartum contraception (Thurman, Harvey et al. 2009).

Sub-Sample of Women Wanting a Sterilization—Data and Methods

To learn more about the factors that led these women to want to permanently end childbearing, as well as the nature and strength of 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. Given the age

restrictions for performing sterilizations under Medicaid as well as our finding that women with one child were less likely to want a sterilization, we initially focused on re-contacting women who were 21 years of age and older with two or more children (n=337). From this sub-group, we attempted to contact a randomly selected sample of 285 women who provided written consent to be re-contacted for future interviews, with an *a priori* goal of interviewing 120 women who wanted a sterilization. Between July 2009 and June 2010, we were able to contact 153 women, and 152 agreed to be interviewed.

In anticipation of the fact that some women may have gotten a sterilization since the Time 4 interview or changed their minds about wanting more children, we screened all 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; 2) women who had gotten a sterilization; 3) women whose partners had gotten a vasectomy; 4) pregnant women; and 5) women who had changed their minds about wanting a sterilization. Of the 152 women, the large majority (139, 91%) still wanted a sterilization but had not gotten one (Figure 1). Of the remaining women, six had obtained a sterilization (4%), two reported their partner had a vasectomy (1%), one was pregnant, and four no longer wanted a sterilization (3%). We only re-interviewed women in the first four categories as change in sterilization intentions was not a main focus of the sub-study, and there were few women in this group. Overall, we conducted interviews with 128 of the 152 who agreed to be interviewed. These interviews were carried out between March and June 2010.

Using a combination of both closed and open-ended questions, we asked women who still wanted a sterilization (n=120) about their reasons for wanting to end childbearing and for wanting a sterilization, 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 knowledge of sterilization and reproductive health services in El Paso, 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 all 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 order to gather more detailed information on the experiences of women in the other groups, we conducted in-depth interviews.[a] Here we focus on the women who had obtained a sterilization (n=5) or whose partner had a vasectomy (n=2). We asked these participants about the timing and location of their procedure, the process followed for getting the procedure, and overall satisfaction with the outcome. Six of these seven interviews were recorded and transcribed.[b] All of them were carried out between May and June 2010.

To understand the service environment for sterilization in El Paso, we also conducted key informant interviews with staff and health care professionals at the main

family planning service providers (n=4), private practice obstetrician-gynecologists (n=3), and urologists (n=2) in May 2010. Key informants were asked a range of questions about the characteristics of their patient population, perceptions of the safety and appropriateness of surgical sterilization procedures for their patients, and availability of contraception and sterilization services at their site. For this analysis, we focus on providers' discussions of characteristics for 'ideal' candidates for sterilization.

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 the pill as their current form of contraception (Table 3). Other women were using condoms (11%), other hormonal methods (7%) and the IUD (10%). Twelve women reported having had a pregnancy since the Time 4 interview.

The reasons women gave for not wanting to have any more children are shown in Table 4. 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 also mentioned concerns about the effectiveness or side effects related to their current contraceptive method, and those on the pill said that they felt

they had been using the pill for too long. The following quotations are representative of these ideas:

> "Because the pill makes me sick. And, well, withdrawal isn't reliable, that's why."
>
> *"Porque la pastilla me hace mucho daño. Y pues con el retiro no es seguro, así que por eso."*

> "Well, because you can forget and suddenly you are pregnant, because I've become pregnant twice on the pill. Although I don't forget (to take) them, I am still a little afraid of getting pregnant."
>
> *"Pues porque se le puede olvidar a uno, puede de repente salir embarazada, porque ya he salido dos veces embarazada con las pastillas. Aunque no se me olviden pero, tengo miedito de repente salir embarazada."*

> "Because it wouldn't be hormones any more, it wouldn't be chemicals in the body. It would be a way, an unnatural way, but not invasive like the pill, that you have to keep taking.
>
> *"Porque ya no serían hormonas, ya no serían, ya no serían más cosas químicas al cuerpo. Ya sería una forma, pues no natural, pero no invasiva como las pastillas, que sigue uno tomando."*

> " . . .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 because they won't give them to me because I'm over 40 years old.
>
> *"Porque con la pastilla corro riesgo, más riesgo que estando operada. No todo el tiempo me van a estar trayendo las pastillas de México. Al rato la persona que me las trae tampoco va poder ir. A lo mejor al rato no se puede cruzar. Y no voy aquí porque no me las dan porque tengo más de 40 anos."*

Although 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 at any time 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 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 72 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 nine were put on a waiting list for the procedure and six signed consent forms (see Table 5). Thirty-six women (59%) reported that they took no additional 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; only two of them received counseling and four were put on a waiting list. However, the majority (n=18) only talked with their doctor or nurse and took no additional steps. 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.

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 ("*no había fondos*"). 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 not signing the consent form far enough in advance, not having the form available at delivery, or the 30-day waiting period had not expired by the time she delivered.

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, 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:

> "I told the doctor, I did want a sterilization then, but no, she told me no. . . that I was still very young, maybe I would regret it. I told her no, I did not want [more children], but she said no, for me to think it over carefully, and, well, it's still on the waiting list. I was 19."
>
> *"Le comenté a la doctora…que ya me quería operar, y no, me dijeron que no. Que todavía estaba muy joven, que a lo mejor me podía arrepentir…. Yo le comenté que no, que ya no quería, pero dijo que no, que lo pensara bien, y no pues hasta horita esta en…lista de espera. Tenía 19".*

> "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 wouldn't last…and whether a joke or true, they didn't operate."
>
> *"No, porque cuando me preguntaron le edad, cuanto tenía de casada, cuántos hijos tenía y me dijeron que no era muy factible para que me operaran. [Y no me operaron] …porque tenía 5 años de casada y tenía 30 años. Ó sea, me dijeron que estaba muy joven y a lo mejor no iba durar mucho…entre broma y siendo cierto pero no me operaron."*

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 husbands beforehand or not agreeing with their husbands 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 get a sterilization, about half said they would.

Our key informant interviews with family planning service providers corroborated women's reports for the reasons they did not get a sterilization. For example, just as women's experiences demonstrated that a considerable age range was viewed as "too young" for sterilization, there was no normative response among providers about the age criteria they considered as ideal for sterilization, although, they were aware of the minimum age (21 years old) required by Medicaid. While providers reported that marital status, length of marriage and parity were also criteria for determining 'ideal candidates,' few offered specific information. However, one obstetrician/gynecologist mentioned that women with at least three children were preferred candidates, but this was not a fixed criterion in his practice. Providers were aware of findings about regret from the US Collaborative Review of Sterilization (CREST) (Peterson, Oakley et al. 1998), and used those results to guide their decision-making regarding their response to sterilization requests, regardless of the patient's particular circumstances and situation.

Experiences of Women who Obtained a Sterilization

The five women we interviewed who had gotten a sterilization by the time of the follow-up survey described a range of circumstances that enabled them to get the procedure. Two had unplanned pregnancies and were able to get a sterilization postpartum. While 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 sterilization postpartum.

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 get a sterilization, without being put on a waiting list. Another woman had been told in the past she was too young to get sterilized. She had several health problems while on the pill, experienced an unplanned pregnancy, and, following the delivery of her third child, continued pill use. After noting a spike in her blood sugar, her health providers advised her to stop taking the pill 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 the difficulties with his wife's 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 his sexual relationship with his partner, 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 oral contraceptive users, we found a large proportion of women who did not want to have more children and wanted a sterilization. When we re-interviewed a subsample of these women approximately a year and a half later, the vast majority still had not been able to obtain a sterilization. These findings provide additional evidence of unmet demand for sterilization among low-income and minority

women in the United States, and point 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 underlying source of the unmet demand was the limited availability of public funding for sterilization. The financial constraints on providers in El Paso reflect both the relatively low-level of family planning funding for low-income women in Texas (James, Salganicoff et al. 2009), as well as the impact of the reallocation of federal funding to FQHCs, none of which had the capability of providing surgical sterilization. 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. hormonals) and rationing the small number of sterilizations that they were able to provide by way of waiting lists. However, without subsidized sterilization services, most women in our study were unable to pay for the procedure themselves.

For women who were eligible for subsidized services during their last pregnancy, we also found that that the requirement to complete the Title XIX Medicaid consent form 30 days prior to delivery was a barrier to getting 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 consent form requirement is a barrier that is

unique to low-income women and not something women with private insurance have to contend with.

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 strong preferences for sterilization over their current method. This result is consistent with findings noted by Zite (2006) and Lawrence (2011) that age and parity criteria may contribute to women not obtaining a desired sterilization, and raises questions as to how well women may be able to realize their childbearing preferences when local providers decide whether to offer a woman sterilization based on restrictive social criteria.

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 women we interviewed seemed to follow the standard protocol for obtaining an interval procedure. In addition, none of these women availed themselves of the Texas Medicaid family planning waiver, which may be the result of the residency and income restrictions for obtaining services through this program. 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, and they are not at liberty to cross back into Mexico where sterilization and vasectomy are available free of charge in public clinics, or at a much lower cost in the private sector.

Being unable to obtain a sterilization, most of the women we interviewed were still using the pill a year and a half after declaring that they would like to be sterilized. A small fraction was using an IUD, but an even larger proportion was using condoms, and some were using no method at all. The use of these less effective methods likely reflects their concern for being on the pill for an excessive length of time, combined with an inability to access or an unwillingness to use an IUD. In any case, the use of less-effective or no methods certainly is not a reflection of ambivalence about continued childbearing in this population, but is, of course, a risk factor for a future unintended pregnancy.

Our study has some important limitations. It 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 found it alarming 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. Indeed, 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. More broadly, this study provides insight into the structural factors that may be underlying disparities in the rates of unintended pregnancy among Latina women with two or more children in an under-served community.

Endnotes

a. Only five of the six women who had obtained a sterilization were interviewed as one woman could not be re-contacted after the initial screening.

b. The remaining interview was conducted by phone due to repeated difficulties in arranging an in-person interview. In this case, the interviewer took detailed notes of the phone conversation.

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Table 1. Proportion of parous women using oral contraceptives who want no more children and who want a sterilization in the Border Contraceptive Access Study, for all women and by selected characteristics.

	Sample	Want no more children at Baseline	Want no more children at Time 4	Want a sterilization at Time 4
	n	%	%	%
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. Odds Ratios (95% CI) for wanting a sterilization at the Time 4 interview (n=801)

	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

Table 3. Frequency of current contraceptive method use among women interviewed for the sterilization access supplement (n=120)

	%
Pills	63.3
IUD	10.0
Condoms	10.8
Other hormonal methods	6.7
Other method	3.3
No method	5.8

Table 4. 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.

Table 5. Frequencies of steps taken to get a sterilization among women who discussed sterilization with provider

	During last pregnancy[1] (n=63)	While in hospital following delivery (n=24)
	%	%
Got counseling	19.1	8.3
Got on waiting list	14.3	16.7
Signed consent form	9.5	0.0
Took no additional steps	58.7	75.0

1. Total exceeds 100% as participants could have taken more than one step to get a sterilization.

Figure 1. Selection of sub-sample for interviews on access to sterilization