

Barriers to Offering Vasectomy at Publicly Funded Family Planning Organizations in Texas

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Abstract

Few publicly funded family planning clinics in the United States offer vasectomy, but little is known about the reasons this method is not more widely available at these sources of care. Between February 2012 and February 2015, three waves of in-depth interviews were conducted with program administrators at 54 family planning organizations in Texas. Participants described their organization's vasectomy service model and factors that influenced how frequently vasectomy was provided. Interview transcripts were coded and analyzed using a theme-based approach. Service models and barriers to providing vasectomy were compared by organization type (e.g., women's health center, public health clinic) and receipt of Title X funding. Two thirds of organizations did not offer vasectomy on-site or pay for referrals with family planning funding; nine organizations frequently provided vasectomy. Organizations did not widely offer vasectomy because they could not find providers that would accept the low reimbursement for the procedure or because they lacked funding for men's reproductive health care. Respondents often did not perceive men's reproductive health care as a service priority and commented that men, especially Latinos, had limited interest in vasectomy. Although organizations of all types reported barriers, women's health centers and Title X-funded organizations more frequently offered vasectomy by conducting tailored outreach to men and vasectomy providers. A combination of factors operating at the health systems and provider level influence the availability of vasectomy at publicly funded family planning organizations in Texas. Multilevel approaches that address key barriers to vasectomy provision would help organizations offer comprehensive contraceptive services.

Keywords

vasectomy, male family planning, access to care, qualitative research

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For men and couples who do not want more children, vasectomy is a highly effective contraceptive option. Compared with laparoscopic tubal ligation, vasectomy poses fewer surgical risks (Bartz & Greenberg, 2008; Hendrix, Chauhan, & Morrison, 1999), has a lower failure rate (Trussell, 2011), and is more cost effective (Trussell et al., 2009). Despite its advantages, only 8% of current contraceptive users in the United States rely on vasectomy compared with 25% using female sterilization, and incomebased disparities are pronounced (Daniels, Daugherty, Jones, & Mosher, 2015). Men with incomes ≤149% of the federal poverty level (FPL) are five times less likely to have a vasectomy than those with incomes ≥300% FPL (3% vs. 16%, respectively; Anderson et al., 2012).

One of the reasons that low-income men infrequently rely on vasectomy may be due to their limited access to the method because they often are uninsured or covered by public insurance programs like Medicaid (Hinton & Artiga, 2016; Simms, McDaniel, Monson, & Fortuny, 2013). This may make it difficult for them to obtain care in the private sector where there are few specialty providers that accept Medicaid and the cost of the procedure ranges from \$300 to \$3,500 (Carlozo, 2012; Decker, 2013).

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Publicly funded family planning organizations (e.g., public health departments, Planned Parenthood clinics) serve as key safety net providers for reproductive health care for low-income groups. Many of these organizations receive funding from the federal Title X program, which requires them to provide family planning clients with a broad range of contraceptive methods on site or by referral. Organizations also may participate in their state's Medicaid family planning expansion program, some of which cover reproductive health services for men who meet the state's income and residency criteria. However, only 7% of publicly funded family planning organizations offer vasectomy to their clients (Frost, Gold, Frohwirth, & Blades, 2012). Some have suggested that the method is not offered at these organizations because providers do not believe that male clients are interested in the procedure and staff clinicians lack appropriate training (Haws, McKenzie, Mehta, & Pollack, 1997; Shih, Turok, & Parker, 2011; Turok, Shih, & Parker, 2011). Although the limited availability of vasectomy at publicly funded clinics has long been recognized (Haws et al., 1997), to our knowledge, there have been no recent studies examining publicly funded providers' perspectives on barriers to offering vasectomy at their organizations.

The purpose of this study is to explore the availability of vasectomy at publicly funded family planning organizations in Texas, which has a large low-income, uninsured population and a diversity of organizations receiving public funding to provide family planning services (Frost, Frohwirth, & Zolna, 2015; Garfield & Damico, 2016). Through in-depth interviews with family planning program administrators, the current study documents the extent to which organizations provide vasectomy on-site and explore barriers and facilitators to offering the procedure. These findings could inform health service delivery models and policies that would increase the accessibility of vasectomy for low-income men and couples.

Changes in Public Funding for Family Planning Services in Texas

Since 2011, there have been considerable changes in both the composition of publicly funded family planning programs in Texas and their level of funding (White et al., 2015). During the 2011 state legislative session, the family planning budget was cut by two thirds—from \$111 million per biennium to \$38 million (Tan, 2011). Additionally, the legislature required the Department of State Health Services (DSHS), which administered the state's Title X grant, to prioritize the distribution of funds to public health and primary care organizations (e.g., federally qualified health centers [FQHCs], public health departments, and maternal and child health centers) over

specialized family planning organizations, like Planned Parenthood and other nonprofit clinics (Tan, 2012).

In 2013, when the Title X grant was awarded to a non-profit agency instead of DSHS, the legislature allocated \$113 million in state funding for family planning and created two new programs. The Family Planning Program only covered reproductive health services for organizations that do not receive Title X. The second program, the Expanded Primary Care Program (EPHC), covered contraception, as well as preventive and primary care services. Since 2013, Texas also has operated an entirely state-funded fee-for-service family planning program (Ramshaw, 2012). Planned Parenthood affiliates are not eligible to participate in any state-funded programs.

For low-income men in Texas, subsidized family planning services are available at organizations that receive Title X or state Family Planning Program funding. In some counties, they can receive care through local indigent care programs. Men are not eligible for the fee-forservice family planning or EPHC programs. Texas has not expanded Medicaid under the Affordable Care Act, and men with dependent children are only eligible for Medicaid benefits, including vasectomy, if their incomes are <19% FPL (Kaiser Family Foundation, 2014).

Method

Data

The current study is a secondary analysis of qualitative interviews that were conducted as part of a mixed-methods study evaluating the impact of measures affecting funding for and participation in Texas' family planning programs (White et al., 2015). The explanatory sequential study design used semistructured in-depth interviews to explore program administrators' (e.g., executive and clinical directors) responses to a survey about changes in family planning services and identify strategies their organization used to adapt to the changing policy and funding environment. Between February 2012 and February 2015, two of the authors trained in qualitative research methods conducted three waves of semistructured in-depth interviews following changes to family planning programs and policies enacted by the state legislature.

In the first wave (February-July 2012), leaders from a subsample of the 72 organizations that had received Title X or other state-administered family planning funding in August 2011 were invited to complete an in-depth interview about changes in clinic operations and family planning services following the 2011 budget cuts and reallocation of the remaining funds to organizations offering primary health care (White et al., 2015). In order to include a wide range of perspectives from small and

large providers and different types of organizations, at least three organizations within each of Texas' eight health regions were sampled based on probability proportional to size, using the number of family planning clients the organization served in 2010. After selecting the sample of 37 organizations, executive directors were mailed a letter inviting them to participate in the study. The research team made follow-up phone calls and sent e-mails to arrange an in-person or phone interview with them or other staff who were knowledgeable of the family planning programs, such as the chief operating officer, medical or clinical services director, or grants manager.

Organizations in the first wave sample that were still providing family planning services (n = 32) were recontacted to participate in the second wave of in-depth interviews, conducted between May and September 2013. Organizations that had not provided family planning services through Title X or other family planning programs in August 2011 but which began doing so by January 2012 (n = 2) also were invited to participate in the second wave of interviews.

The third wave of in-depth interviews was conducted between November 2014 and February 2015 to collect detailed information on how funding from the state's new EPHC program supported organizations' delivery of family planning services. Since 22 of the 52 funded organizations had not previously participated in the state's family planning programs, a subsample of small and large new providers in each health region was selected to participate in the study (n = 10). Thirty-five organizations that participated in the first two waves and were still providing family planning services through Title X or the state's Family Planning Program, some of which also received EPHC funding, were also recontacted for interviews.

The interview guides covered a range of topics on family planning service delivery, and the current study focuses on sections of the guides related to male health services. In all three waves, the interviewers asked respondents a combination of closed- and open-ended questions to elicit information about what services were available to men at the organization, whether the organization offered specific contraceptive methods, including vasectomy, and if these methods were available on-site or by referral. Based on findings from the first wave that vasectomy was infrequently offered, the interview guide in the second wave included open-ended questions about the reasons vasectomy was not available or not widely offered at the organization. In follow-up questions and probes, respondents were asked to describe the availability of urologists or other trained providers in the community, the role of funding for men's health services and reimbursement for the procedure, and men's perceived interest in vasectomy. The interviewers also asked about any successful strategies the organization had used to

make vasectomy more accessible to men in their community and what would make it easier to offer the procedure. In the third wave, respondents from organizations that did not participate in the second wave interview were asked these same questions, and those that had participated in the second wave were asked about any changes in vasectomy provision and new challenges in offering the procedure.

Between one and four employees were interviewed at each site to obtain information on both service delivery and program administration. In-depth interviews were recorded and transcribed. Respondents provided oral consent and were not compensated for participating. The study was approved by the institutional review boards at authors' universities.

Data Analysis

Thematic analysis (Braun & Clarke, 2006) and NVivo10 qualitative software were used to code and manage the transcript data. As a first step in the analysis, two of the authors reviewed the interview transcripts to identify comments addressing male health services and vasectomy and developed a preliminary coding scheme based on barriers to vasectomy cited in the literature (Haws et al., 1997; Shih et al., 2011; Turok et al., 2011). Then, they independently coded each transcript segment about vasectomy services and met to compare coding and reach a consensus on coding discrepancies. When new themes emerged, they reread previous transcripts to identify relevant text segments and assign the most appropriate code. The authors then used Kilbourne, Switzer, Hyman, Crowley-Matoka, and Fine's (2006) conceptual framework for examining the multilevel determinants of health disparities in health care settings to organize the coded segments into main themes. This conceptual framework considers disparities to be the result of interactions between health care systems factors (e.g., financing and comprehensiveness of services), providers (e.g., competing priorities and bias), clinical encounters (e.g., patient provider communication), and individual factors. Since program administrators were interviewed for this study, the current analysis focuses on the health system, provider, and clinical encounter levels.

Finally, the authors compared vasectomy service delivery models and main themes related to providing vasectomy by organization type and receipt of Title X funding, since these characteristics may be indicators of administrative commitment to offer the full range of contraceptive methods. Hospital-based maternal-child health centers were included in the same category as specialized family planning clinics because of their similar focus on women's health; although maternal-child health centers received priority funding for services from DSHS, they

Table I.	Distribution of Service Models for Pro	oviding Vasectomy at Publicly	Funded Family Planning	Organizations, by
Organizat	ion Type and Receipt of Title X Fundir	ng, Texas 2012-2015.		

	Service model		
	Referral, no contract, n (%) ^a	Referral, contract, n (%) ^a	On-site ^b , n (%) ^a
All organizations	35 (65)	8 (15)	11 (20)
Type of organization			
Federally qualified health center	12 (67)	3 (17)	3 (17)
Public health department/hospital district	13 (81)	2 (13)	I (6)
Specialized women's health organization	7 (44)	2 (12)	7 (44)
Other	3 (75)	I (25)	0 (0)
Received Title X funding since 2011	` ,	` '	. ,
Yes	23 (56)	8 (19)	10 (24)
No	12 (92)	0 (0)	I (8)

^aRow percentages. ^bOne specialized women's health organization offered vasectomy on-site at a large urban health center, and through referral without a contract in another city. Another specialized women's health organization offered vasectomy on-site at a clinic where clients paid for the procedure. All other organizations offering the method on-site subsidized the cost though grant funding.

also were adversely affected by the 2011 funding cuts (White et al., 2015). Main themes from the interviews are summarized further, using representative quotations to highlight these findings.

Results

Program administrators from 27 organizations participated in the first wave of in-depth interviews (73% response rate), 29 organizations took part in the second wave (85% response rate), and 39 organizations completed the third wave (87% response rate). Fourteen organizations participated in all three waves, one of which was excluded from this analysis because it only served clients ≤24 years old and questions about vasectomy were not asked in the interview. The final sample included 54 organizations: 18 FQHCs, 16 public health departments/hospital districts, 16 specialized women's health centers, and 4 nonprofit organizations that provided family planning services.

Overall, 76% of the 94 respondents were women and 24% were men. Approximately half (45%) had executive leadership positions, several of whom also provided clinical services, and about one third (31%) served as clinical or medical directors. The remaining respondents frequently served as grants administrators and were closely involved in the organizations' family planning programs.

Organizations' Vasectomy Services

Overall, 35 organizations (65%) reported that they would refer men who were interested in vasectomy to an out-of-network provider (often an urologist), and did not cover the cost of the procedure using their family planning funding (Table 1). Eight other organizations (15%) referred

male clients to another provider with whom they had a contract to reimburse for the procedure using their family planning funds. Eleven organizations (20%) offered vasectomy on-site, nine of which used Title X or state Family Planning Program funds to subsidize the cost; an FQHC used its federal grant to provide the method on a sliding fee scale, and a specialized family planning organization charged clients \$500 for the procedure. More women's health centers provided vasectomy on-site than other types of organizations. Compared with organizations that were Title X recipients, organizations that had not received Title X funding since 2011 more often referred clients elsewhere and did not cover the cost of the procedure.

At the majority of organizations, program administrators reported that very few men (two or less per year) received vasectomy by referral or on-site. Respondents at nine organizations, seven of which were specialized women's health centers, stated that they provided the method more frequently, especially before 2011 and after 2013 when greater funding for family planning was available. Of these, the small- to midsize organizations (e.g., those serving 2,000-4,000 clients annually) reported providing between 20 and 40 vasectomies a year, and larger organizations serving ≥5,000 clients often provided 50 to 100 vasectomies each year. As described further, factors operating at multiple levels constrained all organizations' abilities to provide vasectomy to low-income clients, and the 2011 funding cuts often added to these challenges for organizations that had offered the method more frequently.

Health Systems Factors

Respondents commonly described limited access to trained providers, the low-reimbursement rate for vasectomy and the organizational culture at referral sites as

important, intersecting health systems barriers to offering vasectomy. These barriers were similarly voiced across the four different types of organizations.

Limited Access to Trained Providers. Program administrators typically viewed urologists as the only providers who could perform vasectomy, and few organizations had such a specialist in their network. Executive and clinical directors at five organizations further commented that they had "never heard of an FQHC doing vasectomies in the clinic" and "would be hard-pressed" to find a family medicine clinician that offers them. Therefore, clinic staff would refer any men or couples interested in vasectomy to a private practice urologist, but as noted above, most organizations did not have a contract with these providers to cover the cost of the procedure. Without a contract, some administrators questioned whether low-income men could afford the out-of-pocket costs for the procedure, even if the practice offered discounted rates (\$300-\$600) for uninsured clients. Organizations that were not located in large metropolitan centers mentioned that a lack of providers in their area meant it was unlikely that men would follow up on any referrals made, as a public health department administrator explained,

I do not even know for sure of any providers in our area. . . . The [men] that are wanting vasectomies, we have to refer to a provider in [another county]. . . . You are going to have to drive 70 to 80 miles to get it. Some of them balk at that because they may not have gas money. They may not be able to take off an entire day of work just to go get whatever done.

Low-Reimbursement Rate. Respondents at organizations that had received Title X funding frequently remarked that they were unable to establish contracts with trained clinicians in the community because potential contractors considered the \$250 reimbursement permitted under the program to be too low. The executive director at a specialized women's health organization explained,

[The reimbursement] does not cover even the doctor's office visit. I think if the state were to increase the amount . . . then I believe we could participate and refer a lot of men . . . but right now, the reimbursement rate is just prohibitive.

In smaller communities, it was particularly difficult to find one of the few trained providers that would accept the reimbursement. For example, a respondent from a public health department commented that the organization had been unable to offer vasectomy for 8 or 9 years after losing a 1-year contract with a urologist in their county of less than 100,000,

After that he would not renew his contract and said, "I just can't do it for the \$250 . . . I could fill that time up with

private-paid insurance and my reimbursement is more."... So we just basically tell [clients] that we don't have funding to do [any] sterilization services.

Three organizations mentioned urologists in their community preferred to perform vasectomy in a hospital setting, thereby widening the gap between the reimbursement rate and cost of the procedure that also included anesthesia and facility fees.

Organizational Culture at Referral Sites. Referring clients to urologists outside the organization's family planning clinics posed other challenges as well. The executive director at a women's health organization stated that the urology group with which she worked "provides a variety of urological services and so doing vasectomies was not at the height of their scheduling template"; as a result, the group allocated a limited number of appointments to men who were referred. Program administrators at four Title X-funded organizations reported that private sector clinicians' limited experience with the challenges serving low-income clients, combined with low reimbursement, made it difficult to ensure that urology practices kept dedicated appointments available for the men they referred. For example, the executive director at a specialized women's health clinic added that, besides the reimbursement, she struggled to maintain the contract with a local urology practice because "our clientele are different than their private insurance clientele, and there's a higher no-show rate . . . they [patients] tend to have less control of their time," which upset the office's staff.

Respondents from organizations that offered vasectomy frequently agreed that the reimbursement rate was very low compared with private practice urologists' standard rate (\$900-\$1,000), but had negotiated a variety of arrangements with local clinicians to offer the procedure. The executive director at a small nonprofit clinic commented the urologists with whom she had a long-standing contract agreed to accept the reimbursement rate "just because it was the right thing for them to do. . . . They all buy in knowing that they're only going to do three or four a month." With greater funding available in 2013, a woman's health center administrator noted her organization had successfully increased vasectomy services over the previous year and often shared her story of active outreach to community urologists with other agencies. She explained,

I have spoken to other agencies where they call in, and they are like "how do you do vasectomies?" And I said "you know what? Go find a urologist in town. Let him know who you are. Put him on your education committee. Have an open house." And say, "This is all I have. This is all we get [for reimbursement]." Because it did not happen overnight.

Three organizations partnered with family medicine residency programs, which provided services on-site or accepted referrals. A respondent at an FQHC explained this was "a mutually beneficial relationship" that made it possible for the organization to offer vasectomy because the residents could fulfill their training requirements. He went on to say, "even though we may not get reimbursed for the entire time and efforts, we view it as an essential service for our clients."

Provider Factors

Competing service priorities, providers' attitudes about men's interest in vasectomy, and cultural biases frequently emerged as barriers at the provider level, but these themes were expressed somewhat differently across the organization types.

Competing Service Priorities. Organizations routinely provided men with testing and treatment for sexually transmitted infections, but administrators across all organization types often did not perceive men's reproductive health services as a priority. Instead, the organization focused on services viewed as central to its mission. Respondents at FQHCs and public health departments discussed the extensive need for primary health care services in their communities, and said "[we're] really focusing our efforts on getting those under control. So [vasectomy] is one of those things that is not considered a necessity for this population." A public health program administrator in another community with high rates of diabetes and hypertension commented that the organization had never done vasectomies because it "is not a lifesaving . . . procedure."

Although administrators at specialized women's health organizations more often discussed the importance of men's involvement in family planning, serving women was a priority since men typically accounted for a small percentage of the total patient volume. Increasing any vasectomy services they offered was challenging because "it's hard to focus a lot of attention on that tiny sliver of business." The executive director at another specialized family planning organization elaborated,

we have to keep staff trained on the nuances of the entire procedure, and how do sperm counts and tests afterwards to make sure the vasectomy was successful, and follow-up care for patients. When it is not the core of what we do every single day . . . it is a whole lot of staff training and investment in knowledge for a lower return on the cost.

These organizations also were disproportionately affected by the 2011 funding cuts and struggled to continue providing women's health services; therefore vasectomy, which is more costly than a family planning office visit, was rarely offered—if offered at all. As the executive director at an organization that had provided 20 vasectomies annually explained,

When the resources are cut, you have to decide who's going to be prioritized. . . . And it's not that I want to not serve the male. I do. I just don't want to not serve the woman who really needs it.

Provider Attitudes About Male Interest in Vasectomy. When offering their explanation for the low volume of procedures performed or clients referred, respondents also frequently commented that male clients were not interested in vasectomy. Administrators at public health clinics and FQHCs more often expressed this view, but respondents from the other types of organizations also reported this. They stated that men "worry about their sex drive," "basically [want to] keep things intact," and have "fear of the surgical procedure itself." Such perceptions were reinforced by incidents in which female clients would refer their partners to the clinic. As a women's health program administrator explained, men would "get counseled, consented, but they really didn't want to do it. And so when it was time for them to show up for the procedure, they just wouldn't show up." Because of this, several respondents stated that their organization would be unlikely to begin offering the service even if additional funding for vasectomy were available. Citing both a lack of trained clinicians and perceived limited demand, the medical director at an FQHC commented,

I don't know if we can get anything out of providing that service, because we'd have to find somebody to help us to do it and then to actually get the numbers there. . . . We would not meet those [program] requirements.

Cultural Biases. While men in general were thought to have limited interest in vasectomy, Latino men in particular were considered to be more opposed to undergoing the procedure. These views were expressed by respondents at all organization types, but were much more common among those at FQHCs. When asked to discuss the reasons vasectomy was not widely offered, the medical director at a health department simply responded, "Come on, we're dealing with mostly Hispanics." Latino men's opposition to vasectomy was attributed to presumed cultural norms around masculinity. For example, an FQHC program administrator said, "It's the macho image and, 'Now I'm not going to be a man' . . . so they don't get it done." Others also commented on what were perceived to be cultural attitudes about contraceptive responsibility and pointed to the higher prevalence of female sterilization among Latinas, as a respondent from another FQHC

explained, "honestly, it's a cultural thing. In the Hispanic culture, men are not going to go and get vasectomies. It's not a winner. They rather have their wife go get cut up." Such cultural differences were seen as immutable, and therefore administrators believed it was unlikely that their organization would be able to increase vasectomy services if funding was available, as the program director at an FQHC noted, "the cost is not the issue there; it is just the desire . . . and the culture you are dealing with."

In contrast, organizations that more frequently offered vasectomy all served large Latino communities. Rather than lack of interest and presumed cultural norms, these respondents commented that lack of awareness and misinformation about the procedure were key barriers that could be effectively addressed through a dedicated outreach program. The executive director at a women's health clinic explained that when that organization had a male health grant prior to 2011, they hired a male involvement educator whose job was "to get men involved in reproductive health with their partners or by themselves" because "if you don't promote it, or educate the people about it, [vasectomy's] just not gonna happen." The administrator from a women's health center in another community noted that outreach was essential since men less frequently access health care and "wouldn't even know . . . who to even go to. What specialists or what is involved." She went on to describe how they had been able to reach men and provide a large number of vasectomies,

[We] have peer support groups and . . . gatherings in the communities and towns where males would go in. And other males would talk about how they went through it and what they did regarding vasectomies, and they felt comfortable.

Clinical Encounters

In clinical encounters, both limited communication around vasectomy and limited engagement with women's preferences often narrowed the range of options considered during contraceptive counseling.

Limited Communication. With organizations serving few men, any information about vasectomy was typically presented to female clients, and respondents from specialized women's health centers and other nonprofit organizations more often mentioned counseling women interested in a permanent method about vasectomy. At the other organizations, respondents acknowledged that vasectomy usually received little attention in contraceptive counseling, in part, because it was difficult to provide the service to interested partners, as a respondent from an FQHC explained, "we have not been able to offer it, so we have not been able to have the conversation." The

program administrator at a woman's health organization that provided few vasectomies went further, highlighting the connections between access to providers, vasectomy counseling, and demand for the service, "we don't have a lot of demand . . . because we don't come out and present it as a first option [because] you can't find somebody to do it."

Women's Preferences. Respondents at several organizations noted that female clients occasionally initiated conversations about vasectomy, but more often discussions about the method were started by providers. This approach to connecting men with vasectomy services was not always met with success, an experience shared by all organization types. In a typical description of an encounter, the nursing director at a health department reported,

I gave them that option and said, "You know, do you want to discuss this with your spouse about perhaps them getting a vasectomy because it's less invasive?" just going through the risks and . . . just how extensive it is for a female versus a male. . . . They said, "Oh no, he won't do it. He wants me to do it. It's my responsibility."

As a result, any counseling that did occur led to few referrals, as an FQHC program administrator stated, "we counsel the ladies, too, if they're here without [their partner], 'Take this information home.' They just don't have high takers of that."

However, respondents at organizations that more frequently offered vasectomy attributed part of their success to reaching out to existing female clients about the method, rather than passing along informational brochures. At an FQHC that began offering the procedure on-site, the family planning program administrator noted that creating a pool of clients within the organization who had a vasectomy was key to the growth of their vasectomy program, "In our established clients, I think word of mouth is the biggest publicity. We do have flyers, which mention some of our vasectomy services, but I think inreach has helped in terms of capturing the vasectomy clients." In addition to providing women with accurate information about the lower risks of vasectomy compared with female sterilization, educating women about how their partner could qualify to get the procedure for low cost was also important. This approach often was effective when there was very limited access to female sterilization. For example, the executive director at a specialized women's health clinic that had a long waiting list for female sterilization said her staff would tell women "It would be better for us to do your husband. Can he come in?' . . . And there's some that will say, 'Oh, well, you know what? I didn't know that.' 'Yeah. We can get him in faster." Actively encouraging male partners to

visit the organization, particularly designated male clinics, was also considered a successful strategy as the director at another women's health organization explained,

We'll say, "Well, we don't have [money] for female sterilization but what about male? Do you have your partner? Is your partner interested? Have them come to our male clinic, and then we can talk to them about it." And that's kind of what we do, because we can get more.

Discussion

Similar to other reports of contraceptive services available from publicly funded family planning providers (Frost et al., 2012; Thiel de Bocanegra, Riedel, Menz, Darney, & Brindis, 2014), most organizations in Texas in this study did not offer vasectomy on-site. Additionally, nearly two thirds lacked arrangements with area providers to cover the cost of the procedure. Although specialized women's health centers and Title X-funded organizations in Texas more often reported offering the method, interviews with program administrators revealed that these organizations shared some of the same barriers that constrained other organizations' ability to provide vasectomy to low-income clients. Beyond documenting the limited availability of vasectomy, the current study highlights how challenges operating at the health system and provider levels often interacted with one another in ways that also shaped clinical encounters with family planning clients.

Limitations on family planning funding were key health systems barriers for most of the organizations in the current study, especially after the 2011 legislation that cut funding for family planning services (White et al., 2015). Low-income men in Texas are not eligible for services through several of the state's family planning programs, and some administrators viewed the procedure as too costly to make it widely available through the other grant funding they received. Moreover, even with funding that covered men's reproductive health care, such as Title X, the authorized reimbursement rate was often too low to attract and retain vasectomy providers, whose private sector fees were at least three times higher. These limitations prevented some providers from fully including vasectomy as part of their contraceptive counseling. It may be possible to increase access to vasectomy by raising the reimbursement rate through publicly funded family planning programs, as Illinois recently has done (Illinois Department of Healthcare and Family Services, 2014), and making men eligible for the state's fee-forservice family planning program or permitting separate billing through other dedicated funding sources. Mandating insurance coverage of vasectomy without cost sharing, which has been passed in several states and recommended by the Women's Preventive Services Initiative, may also increase access among men who purchase insurance on the exchanges (Sananes, 2016; Women's Preventive Services Initiative, 2016; Wood, 2016).

The current study also indicates that the extent to which vasectomy was offered at Texas' publicly funded family planning clinics was related to men's perceived interest in the method, echoing hypotheses put forth by others (Borrero et al., 2009; Eisenberg, Henderson, Amory, Smith, & Walsh, 2009). While some respondents recounted their own experiences interacting with reluctant clients, others asserted that men, particularly Latino men, simply are not interested in vasectomy and, therefore, made few efforts to engage men in the community and female clients around this topic. However, recent studies with low-income and Latino men have challenged these assumptions and biases and, instead, point to men's general lack of awareness or incomplete information about vasectomy, including where to obtain affordable services (Hubert, White, Hopkins, Grossman, & Potter, 2016; Shih, Dubé, & Dehlendorf, 2013; White & Potter, 2014). As evidenced by organizations' reported success with conducting tailored community outreach programs in this study, as well as campaigns conducted in lowresource settings outside the United States, men are likely to express interest in the procedure when these information gaps are addressed (Kincaid et al., 1996; Subramanian, Cisek, Kanlisi, & Pile, 2010; Vernon, 1996). Therefore, informing organizations about effective strategies for community and patient education on vasectomy and providing them with the financial resources to carry out these activities could increase access to the procedure for those who do not want more children.

A concerning finding was that some organizations in this sample, particularly public health and primary care clinics, viewed the provision of vasectomy as outside of their mission and scope of services. Publicly funded family planning organizations are the practical point of service because they are the main sources of reproductive health care for low-income populations and have extensive experience serving women and men in their communities. Although vasectomy is commonly provided by urologists in the United States, family medicine clinicians, who are more likely to be on staff at publicly funded family planning clinics, can be trained to perform the procedure (Barone, Hutchinson, Johnson, Hsia, & Wheeler, 2006; Haws et al., 1997). Indeed, several of the organizations in this study that more widely offered vasectomy partnered with family medicine providers.

Training on-site providers in minimally invasive vasectomy techniques may not be feasible in all cases, but since a large percentage of men who are referred to another provider do not get a vasectomy (Thiel de Bocanegra, Rostovtseva, Menz, Karl, & Darney, 2009), this should be considered one of several strategies to

enhance access to the procedure. Provider training in office-based minimally invasive procedures for female sterilization, such as hysteroscopic tubal occlusion, may be one of the reasons that a higher percentage of U.S. publicly funded clinics offer this form of permanent contraception than vasectomy (Frost et al., 2012). Based on the experience of no-scalpel vasectomy training initiatives at U.S. publicly funded clinics conducted in the late 1990s (Haws et al., 1997), similar programs could be successful in Texas, where a recent survey reported that 29% of Texas family practice clinicians were interested in receiving vasectomy training (Kumar, 2015).

A limitation of the current study is that it was conducted in Texas following legislation that cut funding for and restricted organizations' participation in publicly funded programs for family planning (White et al., 2015); therefore, the service environment may not be generalizable to other states. Not only are vasectomy services limited but there also is a large unmet demand for female sterilization in Texas, in part due to limited funding for the procedure (Potter et al., 2012; Thurman, Harvey, & Shain, 2009), and access to other highly effective methods, like IUDs and implants, also was adversely affected by the funding cuts (White et al., 2015). However, like other studies (Frost et al., 2012; Shih et al., 2011; Thiel de Bocanegra et al., 2014), the current analysis documented that few publicly funded organizations offered vasectomy, and it is possible that organizations in other states face similar challenges providing this method. Additionally, interviews were not conducted with program administrators from all publicly funded family planning organizations in Texas. Although the availability of and barriers to providing vasectomy may be different at these organizations, these results likely reflect the service environment in much of the state since participating organizations included large and small providers throughout Texas, and the themes identified were highly consistent across the interviews.

Despite these limitations, the current study expands on earlier reports documenting the limited availability of vasectomy at publicly funded family planning clinics by reporting on the intersecting health systems-level and provider-level barriers to offering the procedure. Organizations were only successful at offering vasectomy when their commitment to provide the service was paired with access to trained providers and sufficient funding to both conduct outreach and education and cover the cost of the procedure. Therefore, multilevel approaches that simultaneously address these factors are needed so that publicly funded family planning organizations can offer comprehensive contraceptive services that include vasectomy. These strategies could include efforts to increase the vasectomy workforce by training providers at publicly funded clinics, expand coverage for the procedure and engage community and peer educators to increase men's awareness of vasectomy. Investments in these approaches will benefit both men and women's reproductive health.

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