# Preconception Care in Publicly Funded U.S. Clinics That Provide Family Planning Services

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**Introduction:** Federal recommendations for providing quality family planning services were published in 2014 and included preconception care (PCC). This paper aims to describe the prevalence of PCC delivery among publicly funded clinics, prior to the recommendations.

**Methods:** Prevalence of providing occasional or frequent PCC in the last 3 months and having written protocols for recommended PCC screenings were estimated in 2015 using survey data collected from a nationally representative sample of publicly funded clinic administrators (2013–2014, N=1,615). Analyses included examination of differential distributions of outcomes by clinic characteristics ($p < 0.05$) and multivariable regression.

**Results:** Prevalence of occasional or frequent PCC delivery was 81% for women and 38% for men. The percentage of clinics with written protocols for specific PCC screenings ranged from 74% to 88% (women) and 66% to 83% (men). Prevalence of having written protocols for all PCC screenings was 29% for women and 22% for men. Characteristics negatively associated with having written protocols for all PCC screenings for women and men (respectively) were as follows: not receiving Title X funding (adjusted prevalence ratio [APR]=0.6, 95% CI=0.50, 0.76; APR=0.6, 95% CI=0.47, 0.77) and being a community health center (APR=0.5, 95% CI=0.37, 0.72; APR=0.5, 95% CI=0.30, 0.67); health department (APR=0.7, 95% CI=0.61, 0.87; APR=0.6, 95% CI=0.49, 0.76); or hospital/other (APR=0.6, 95% CI=0.50, 0.79; APR=0.6, 95% CI=0.43, 0.75) (versus Planned Parenthood).

**Conclusions:** Provision of PCC appears to differ by clinic characteristics and by interpretation of the phrase "preconception care," suggesting opportunities for education and improvement.
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## Introduction

In 2014, CDC and the Office of Population Affairs published clinical recommendations, "Providing Quality Family Planning Services" (QFP), which identified preconception care (PCC) as a core family planning service,[1] and bolstered earlier CDC recommendations that recognized PCC as a critical component of health care for women of reproductive age.[2] The QFP recommendation for PCC identifies services that are appropriate to provide in the context of a family planning visit and therefore constitute a subset of all PCC services that have been recommended for women and men.[1–4] Appendix Table 1 (available online) summarizes the PCC screenings that QFP recommends providing during family planning visits.[1]

Integrating PCC into family planning visits is a novel approach for some providers, and extensive efforts are being made to promote adoption of the QFP recommendations among family planning and primary care providers. A key audience for QFP is providers working

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in clinics funded by Title X, a federal program that provides subsidized family planning services for nearly 5 million low-income women and men annually.[5]

The objective of this study was to describe the prevalence of PCC delivery and written protocols for PCC in the publicly funded, U.S. family planning clinic network, which includes community health centers (CHCs), health departments, Planned Parenthood health centers, outpatient hospitals, and other clinics. This study covers the time period before the release of the 2014 QFP recommendations, supports dissemination and implementation of the QFP recommendations, and provides a baseline for benchmarking uptake of the recommendations over time.

## Methods

### Data

In 2013–2014, a nationally representative sample of publicly funded U.S. clinics that provide family planning (N=4,000) were identified from a Guttmacher Institute database and surveyed. A request to complete the survey was directed to the administrator of each clinic, but the primary role of respondents varied and included administrators, medical directors, and nurse/nurse practitioner managers. Postage-paid return envelopes and surveys were mailed; respondents were also given the option to complete the survey online. Reminder postcards were sent to non-respondents, followed by second mailings and follow-up telephone calls. Per recommendations from the Council of American Survey Research Organizations (www.casro.org/), calculated response rates assume that the proportion of eligible respondents in the unknown subgroup is equivalent to the proportion of eligible respondents in the subgroup with known eligibility or ineligibility. The final Council of American Survey Research Organizations response rate was 49.3% ($n$=1,615). CDC's IRB approval was not needed for this project because CDC was not engaged in human subjects research; the project was approved as public health practice.

### Measures

Gender-specific frequency measures of providing any PCC (undefined in the survey) to women ($n$=1,577) or men ($n$=1,556) were created from two gender-specific questions that asked, *In the past 3 months, about how often did your health center provide preconception health care for women/men?* Four response options were presented as a Likert-type scale that were combined for analyses: *never or rarely* versus *occasionally or frequently*.

A binary outcome (yes/no) for having a written clinical protocol to assess clients' reproductive life plans (RLPs) during contraceptive counseling was created and defined as "asking about clients' intentions regarding the number and timing of pregnancies in the context of their personal values and life goals."

Information from a multipart question was used to examine protocols for other specific PCC screenings that were queried in the survey. Administrators were asked whether their clinic's recommendations for specific, onsite, routine screenings for female and male clients during initial or follow-up family planning visits were specified in a written protocol (yes/no). Of note, the multipart question did not mention PCC, even though many of the specific queried screenings are QFP PCC services. Screening was defined as routinely asking questions about a client's history or performing a physical exam or laboratory test in average-risk, asymptomatic people to help assess risk factors for (or the presence of) a specific disease or condition. For female clients, the survey asked whether or not the clinic had written protocols recommending the following PCC screenings: intimate partner and sexual violence, alcohol and drug use, BMI, tobacco use, blood pressure, diabetes, depression, immunizations, chlamydia, gonorrhea, syphilis, and HIV.[1,2] Some recommended PCC assessments (Appendix Table 1, available online) were not available in the survey data (i.e., screenings for medical history, sexual health assessment, folic acid intake, human papilloma virus immunization, hepatitis B immunization, and hepatitis C virus). For male clients, the examined screenings were the same as for women except intimate partner and sexual violence.[1–3] Gender-specific binary outcomes for having written protocols for all aforementioned PCC screenings (yes/no) were also created.

Characteristics of interest included receipt of Title X funding (yes/no); clinic type (CHC, health department, Planned Parenthood, hospital/other); clinical focus (reproductive health, primary care, other); service area (mostly urban/suburban, mostly rural, combination); and annual family planning caseload ($<$1,000, 1,000–9,999, $\geq$10,000). Owing to the large number of "other" responses for clinical focus (22%), write-in responses were reviewed and recoded to reflect "reproductive health" or "primary care" as appropriate. Examples of write-in responses for "other" that were not recoded included "immunizations," "public health," and "communicable disease."

### Statistical Analysis

In 2015, the overall prevalence and SEs of three outcomes were estimated separately by client gender: (1) occasional or frequent provision of any PCC within the last 3 months; (2) having written protocols for specific recommended PCC screenings; and (3) having written protocols for all recommended PCC screenings that were available in the data. Pearson chi-square tests were used to assess differential distributions in the prevalence of outcomes by characteristics ($p<0.05$). Differential distributions of having written protocols for specific PCC screenings were assessed by only Title X funding status and clinic type ($p<0.05$). These same analyses were conducted for RLP assessment (not by client gender). Multivariable generalized linear models with Poisson distribution were used to estimate the adjusted prevalence ratios (APRs) and 95% CIs (controlling for all characteristics described above) for the following outcomes separately by client gender: occasional or frequent provision of any PCC in the last 3 months, having written protocols for specific PCC screenings, and having written protocols for all PCC screenings. All analyses were conducted using weighted data and Stata, version 13, to adjust for the complex survey design and non-response.

## Results

The sample included 1,615 clinics, represented by CHCs (37%); health departments (31%); Planned Parenthood

**Table 1.** Sample Characteristics and Delivery of Any Preconception Care to Female and Male Clients[a]

| Clinic characteristics | Sample (*n*=1,615) % | Female clients (*n*=1,577) % (SE) | APR[b] (95% CI) | Male clients (*n*=1,556) % (SE) | APR[b] (95% CI) |
|---|---|---|---|---|---|
| Overall | | 80.8 (0.01) | — | 37.8 (0.01) | — |
| Receipt of Title X funding | | | | | |
| Yes | **49.3** | **84.6 (0.01)** | ref | 36.3 (0.01) | ref |
| No | **50.7** | **77.2 (0.02)** | **0.9 (0.87, 0.98)** | 39.2 (0.02) | 0.9 (0.76, 1.02) |
| $\chi^2$ *p*-value | | **<0.001** | | 0.213 | |
| Type of health center | | | | | |
| CHC | **36.6** | **77.1 (0.02)** | **1.2 (1.04, 1.30)** | **43.1 (0.02)** | **1.5 (1.12, 1.93)** |
| Health department | **31.4** | **84.7 (0.01)** | **1.2 (1.08, 1.30)** | **31.3 (0.02)** | 1.0 (0.82, 1.29) |
| Planned parenthood | **9.1** | **77.1 (0.03)** | ref | **36.5 (0.03)** | ref |
| Hospital/other[c] | **23.0** | **82.8 (0.02)** | **1.2 (1.07, 1.30)** | **39.0 (0.03)** | 1.3 (0.99, 1.59) |
| $\chi^2$ *p*-value | | **0.003** | | **<0.001** | |
| Clinical focus | | | | | |
| Reproductive health | **40.0** | **83.9 (0.01)** | ref | **35.7 (0.02)** | ref |
| Primary care | **48.4** | **77.0 (0.02)** | 1.0 (0.89, 1.02) | **40.7 (0.02)** | 1.1 (0.88, 1.28) |
| Other | **11.6** | **86.3 (0.02)** | **1.1 (1.00, 1.13)** | **33.2 (0.03)** | 1.1 (0.85, 1.30) |
| $\chi^2$ *p*-value | | **<0.001** | | **0.039** | |
| Service area | | | | | |
| Mostly urban/suburban | **30.7** | **84.0 (0.02)** | 1.0 (0.99, 1.11) | **44.4 (0.02)** | 1.2 (1.03, 1.41) |
| Mostly rural | **48.3** | **77.4 (0.01)** | ref | **31.9 (0.02)** | ref |
| Combination (urban/ suburban and rural) | **21.0** | **84.7 (0.02)** | 1.1 (1.00, 1.13) | **40.7 (0.03)** | 1.1 (0.96, 1.35) |
| $\chi^2$ *p*-value | | **0.002** | | **<0.001** | |
| Annual family planning caseload | | | | | |
| <1,000 | **50.6** | **72.8 (0.02)** | **0.9 (0.79, 0.93)** | **30.5 (0.02)** | **0.7 (0.56, 0.84)** |
| 1,000–4,999 | **36.3** | **89.4 (0.01)** | 1.0 (0.98, 1.11) | **43.6 (0.02)** | 1.0 (0.80, 1.14) |
| ≥5,000 | **13.2** | **83.5 (0.02)** | ref | **46.0 (0.03)** | ref |
| $\chi^2$ *p*-value | | **<0.001** | | **<0.001** | |

[a]National survey data of publicly funded health centers that offer family planning services. Preconception care was defined as self-reported occasional or frequent provision of preconception health care in the previous 3 months.
[b]Multivariable general linear models with Poisson distribution used to estimate the APRs controlling for all variables in table. Boldface indicates statistical significance ($p<0.05$).
[c]Includes private non-profit organizations, and other.
APR, adjusted prevalence ratio; CHC, community health center.

centers (9%); and hospitals/other (23%) (Table 1). Approximately half were Title X–funded (49%); had a primary care focus (48%); reported mostly rural service area (48%); and had annual family planning caseloads <1,000 (51%). Most (81%) clinics reported that they occasionally (28%) or frequently (53%) provided any PCC to women in the previous 3 months, but fewer (38%) reported occasional (21%) or frequent (17%) PCC provision to men during the same time period. All examined characteristics were significantly associated with occasional or frequent PCC provision in unadjusted analyses for female clients, and all, except Title X funding status, were significantly associated with PCC provision for male clients. Clinics with annual family planning caseloads <1,000 had the lowest prevalence of any PCC delivery for women (73%) and men (31%).

Statistically significant associations between not receiving Title X funding and occasional or frequent PCC for women remained in the adjusted model (APR=0.9, 95% CI=0.87, 0.98). Similarly, the association between all clinic types and occasional or frequent PCC for female clients remained statistically significant in the adjusted models (Table 1). Relative to Planned Parenthood health centers, CHCs (APR=1.2, 95% CI=1.04, 1.30); health departments (APR=1.2, 95% CI=1.08, 1.30); and hospitals/other organizations (APR=1.2, 95% CI=1.07, 1.30) were more likely to report any PCC delivery to female clients in the past 3 months. CHCs were also more likely to report any PCC delivery to male clients in the past 3 months (APR=1.5, 95% CI=1.12, 1.93) compared with Planned Parenthood health centers. Relative to clinics with annual family planning caseloads ≥5,000, those with annual family planning caseloads <1,000 were less likely to report any PCC delivery to female (APR=0.9, 95% CI=0.79, 0.93) or male (APR=0.7, 95% CI=0.56, 0.84) clients in the past 3 months.

The percentage of clinics with written protocols for assessing RLPs (for all clients) was 57%, and was higher among Title X–funded clinics (76%) versus non–Title X–funded clinics (35%, $p<0.0001$). Written protocols for RLP assessment also varied by clinic type (ranging from 30% for CHCs to 92% for Planned Parenthood, $p<0.0001$).

For other specific PCC screenings with female clients during initial or follow-up family planning visits, the percentage of clinics with written protocols was lowest for syphilis (74%) and diabetes (76%) and highest for blood pressure (87%) and tobacco use (88%) (Appendix Table 2, available online). The percentage of clinics that reported having written protocols for female clients for specific PCC screenings was significantly higher among clinics with Title X funding (84%–94%) compared with those without Title X funding (59%–84%), with the exception of diabetes (78% vs 73%, respectively, $p=0.058$). However, after adjusting for other characteristics, statistically significant associations between not having Title X funding and having written protocols remained for only a subset of specific PCC screenings: RLP assessment (APR=0.6, 95% CI=0.57, 0.74); intimate partner and sexual violence (APR=0.9, 95% CI=0.83, 0.94); alcohol and drug use (APR=0.9, 95% CI=0.88, 0.99); chlamydia (APR=0.9, 95% CI=0.81, 0.91); gonorrhea (APR=0.9, 95% CI=0.81, 0.91); syphilis (APR=0.8, 95% CI=0.76, 0.89); and HIV (APR=0.9, 95% CI=0.81, 0.91) (Figure 1). Differences in the proportion of clinics with written protocols for female clients for each specific PCC screening also varied significantly by clinic type, except for diabetes ($p=0.67$) (Appendix Table 2, available online). Planned Parenthood health centers had the highest percentages for having written protocols for each specific PCC screening for women (range, 80%–100%), except for immunizations (which was slightly higher among health departments), and CHCs had the lowest percentages (range, 54%–81%), except for BMI (which was lowest among hospitals/other clinic types).

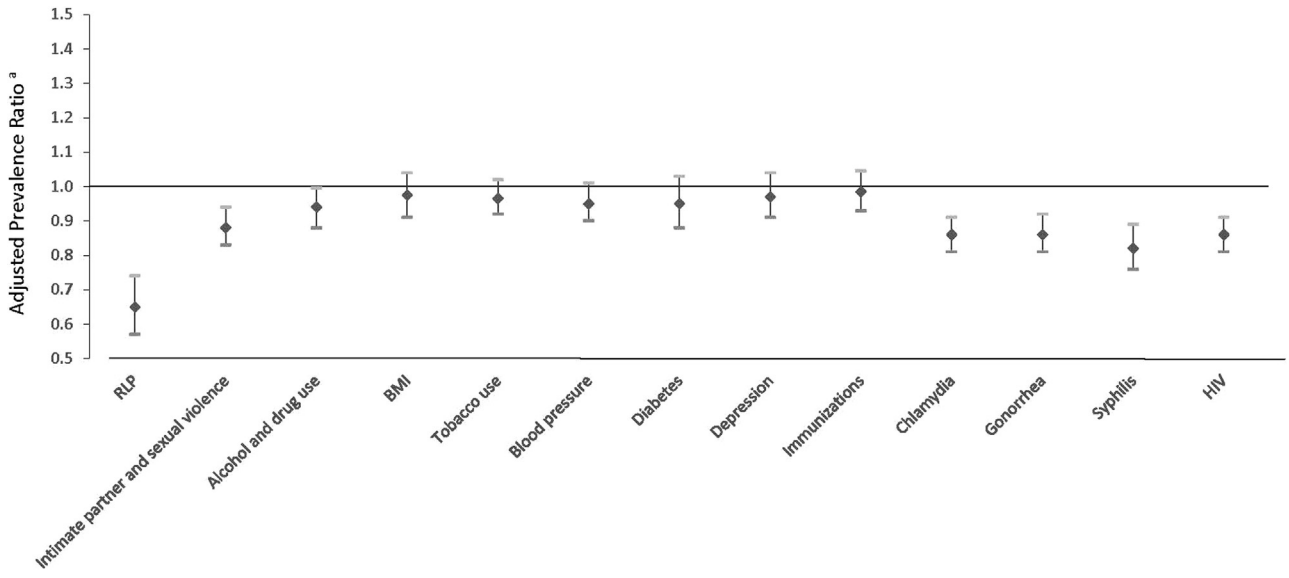


**Figure 1.** Association between no Title X funding and written protocols for preconception care screenings for women.
RLP, reproductive life plan
[a]Multivariable general linear models with Poisson distribution used to estimate the adjusted prevalence ratios controlling for type of health center, health center focus, service area, and family planning caseload. The reference group was health centers that received Title X funding.

The percentage of clinics with written protocols for specific PCC screenings for male clients during initial or follow-up family planning visits was lowest for diabetes (66%) and syphilis (70%) and highest for blood pressure (80%) and tobacco use (83%) (Appendix Table 2, available online). The percentage of clinics that reported having written protocols for male clients for each specific PCC screening was significantly higher among organizations with Title X funding compared with those without Title X funding, with a few exceptions: BMI ($p$=0.508); diabetes ($p$=0.292); depression ($p$=0.879); and immunizations ($p$=0.140). After adjusting for other characteristics, non–Title X–funded clinics were significantly less likely to have written protocols for all specific PCC screenings for male clients except immunizations ($p$=0.419) (Figure 2). Differences in the proportions of clinics with written protocols for each specific PCC screening for male clients also varied significantly by clinic type, except for immunizations ($p$=0.095). Planned Parenthood health centers had the highest percentages for having written protocols for each PCC screening except for diabetes (range, 70%–98%), which was slightly higher among CHCs. Health departments had the second highest percentages of having written protocols for other PCC screenings for men, except for BMI, blood pressure, and depression (which were higher among all other health center types). CHCs had the lowest percentages of having written protocols for screening men for alcohol/drug use (72%); chlamydia (59%); gonorrhea (58%); syphilis (52%); and HIV (60%).

The percentage of clinics with written protocols for all of the gender-specific PCC screenings was 29% for women and 22% for men (Table 2). The likelihood of having written protocols for all recommended PCC screenings for women was lower among clinics without Title X funding (versus with Title X funding) (APR=0.6, 95% CI=0.50, 0.76). Compared with Planned Parenthood health centers, CHCs (APR=0.5, 95% CI=0.37, 0.72); health departments (APR=0.7, 95% CI=0.61, 0.87); and hospitals/other clinic types (APR=0.6, 95% CI=0.50, 0.79) were less likely to have written protocols for all PCC screenings for female clients. Clinics with a focus on primary care (versus reproductive health) were less likely to have written protocols for all PCC screenings for women (APR=0.8, 95% CI=0.60, 0.98). Prevalence of having written protocols for all recommended PCC screenings for men was lower among clinics without Title X funding (versus with Title X funding) (APR=0.6, 95% CI=0.47, 0.77). Compared with Planned Parenthood health centers, CHCs (APR=0.5, 95% CI=0.30, 0.67); health departments (APR=0.6, 95% CI=0.49, 0.76); and hospitals/other clinic types (APR=0.6, 95% CI=0.43, 0.75) were less likely to have written protocols for all PCC screenings for male clients.

## Discussion

These findings suggest that many publicly funded clinics report that they are providing PCC to women and men who are receiving family planning services. Most U.S. publicly funded clinics (81%) reported that they occasionally or frequently provided any PCC to women, and 38% reported that they occasionally or frequently

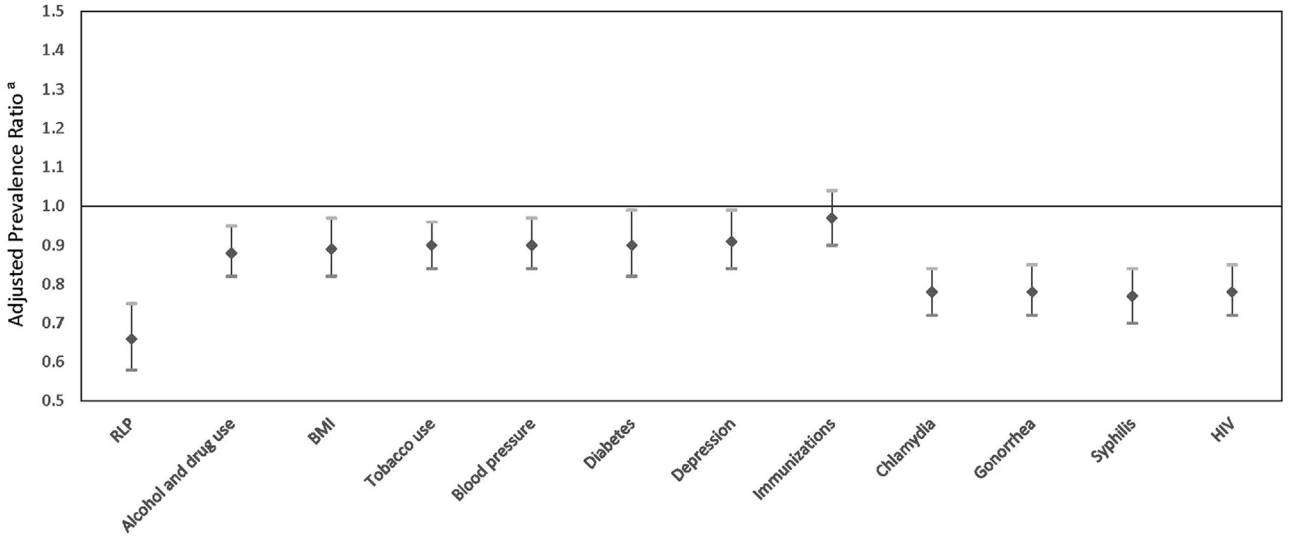


**Figure 2.** Association between no Title X funding and written protocols for preconception care screenings for men.
RLP, reproductive life plan.
[a]Multivariable general linear models with Poisson distribution used to estimate the adjusted prevalence ratios controlling for type of health center, health center focus, service area, and family planning caseload. The reference group was health centers that received Title X funding.

**Table 2.** Associations Between Clinic Characteristics and Having Written Protocols for All Recommended Preconception Care Screenings[a]

| | Female clients[b] | | Male clients[c] | |
|---|---|---|---|---|
| **Clinic characteristics** | **% (SE)** | **APR[d] (95% CI)** | **% (SE)** | **APR[d] (95% CI)** |
| Overall | 29.1 (0.01) | — | 22.3 (0.01) | — |
| Receipt of Title X funding | | | | |
| Yes | **41.2 (0.01)** | ref | **30.5 (0.01)** | ref |
| No | **17.1 (0.01)** | **0.6 (0.50, 0.76)** | **14.1 (0.01)** | **0.6 (0.47, 0.77)** |
| $\chi^2$ *p*-value | <**0.001** | | <**0.001** | |
| Type of health center | | | | |
| CHC | **15.1 (0.02)** | **0.5 (0.37, 0.72)** | **13.0 (0.02)** | **0.5 (0.30, 0.67)** |
| Health department | **40.5 (0.02)** | **0.7 (0.61, 0.87)** | **28.1 (0.01)** | **0.6 (0.49, 0.76)** |
| Planned parenthood | **55.1 (0.03)** | ref | **44.6 (0.03)** | ref |
| Hospital/other[e] | **24.8 (0.02)** | **0.6 (0.50, 0.79)** | **19.7 (0.02)** | **0.6 (0.43, 0.75)** |
| $\chi^2$ *p*-value | <**0.001** | | <**0.001** | |
| Clinical focus | | | | |
| Reproductive health | **41.3 (0.02)** | ref | **29.9 (0.01)** | ref |
| Primary care | **17.0 (0.01)** | **0.8 (0.60, 0.98)** | **14.7 (0.01)** | 1.0 (0.73, 1.27) |
| Other | **36.8 (0.03)** | 1.2 (0.96, 1.39) | **27.5 (0.03)** | 1.2 (0.98, 1.57) |
| $\chi^2$ *p*-value | <**0.001** | | <**0.001** | |
| Service area | | | | |
| Mostly urban/suburban | 28.1 (0.02) | 1.0 (0.81, 1.19) | 21.9 (0.02) | 0.9 (0.75, 1.19) |
| Mostly rural | 28.9 (0.01) | ref | 22.2 (0.01) | ref |
| Combination (urban/suburban and rural) | 31.4 (0.02) | 1.0 (0.87, 1.24) | 23.4 (0.02) | 1.0 (0.78, 1.23) |
| $\chi^2$ *p*-value | 0.511 | | 0.844 | |
| Annual family planning caseload | | | | |
| <1,000 | **25.4 (0.01)** | 0.9 (0.70, 1.12) | **19.6 (0.01)** | 0.8 (0.63, 1.13) |
| 1,000–4,999 | **34.8 (0.02)** | 1.1 (0.90, 1.36) | **25.8 (0.02)** | 1.0 (0.79, 1.31) |
| ≥5,000 | **30.0 (0.01)** | ref | **27.8 (0.03)** | ref |
| $\chi^2$ *p*-value | <**0.001** | | **0.002** | |

[a]National survey data of publicly funded health centers that provide family planning services ($n$=1,511) based on recommendations by Providing Quality Family Planning Services.[2]
[b]Defined as routinely asking questions about a client's history or performing a physical exam or laboratory test in average-risk asymptomatic female clients to help assess reproductive life plan, history of intimate partner and sexual violence, alcohol and drug abuse, BMI, tobacco use, blood pressure, diabetes, depression, immunizations, chlamydia, gonorrhea, syphilis, and HIV.
[c]Defined as routinely asking questions about a client's history or performing a physical exam or laboratory test in average-risk asymptomatic male clients to help assess reproductive life plan, history of alcohol or drug abuse, BMI, tobacco use, blood pressure, diabetes, depression, immunizations, chlamydia, gonorrhea, syphilis, and HIV.
[d]Multivariable general linear models with Poisson distribution used to estimate the APR controlling for all clinic characteristics shown in table; Boldface indicates statistical significance ($p<0.05$).
[e]Includes private non-profit organizations, and other.
APR, adjusted prevalence ratio; CHC, community health center.

provided PCC to men. When specific PCC screenings were considered, the percentage of clinics with written protocols for PCC screenings during family planning visits was high for both women (range, 74%–88%) and men (range, 66%–83%). Yet, the findings reveal that efforts are needed to promote RLP assessments for all

family planning clients, given only 57% of surveyed clinics reported that they have written protocols for RLP assessment.

The findings indicate some priorities for supporting implementation of the QFP recommendations on PCC. Overall, the delivery of PCC services to men lags behind PCC services to women, in almost every context. There is substantial room for improvement for promoting written protocols for all recommended PCC screenings during family planning visits, as only 29% of surveyed clinics reported having such for female clients and even fewer reported having protocols for all recommended PCC screenings for male clients (22%). All clinic types were less likely than Planned Parenthood health centers to have written protocols recommending all PCC screenings for female or male clients. CHCs may be most in need of improving PCC, as they reported the lowest prevalence of having written protocols for assessing RLPs (30%) and frequently had the lowest prevalence of having written protocols for specific female and male PCC screenings. Additionally, having written protocols for all recommended PCC screenings was less likely among clinics with an emphasis on primary health care (versus reproductive health focus) and clinics that were not Title X–funded (versus those that were Title X–funded). The latter finding is consistent with previous reports that found enhanced service delivery was associated with Title X funding.[6,7]

Of note, several findings in this analysis suggest that there may be misunderstanding about the term "preconception care." In particular, the percentage of clinics that reported occasional or frequent PCC to men (38%) was substantially lower than the percentages of clinics with written protocols recommending specific PCC screenings for men (66%–83%). Similarly, the percentage of Planned Parenthood health centers that reported providing any PCC services was substantially lower than their report of having a written protocol for specific recommended screenings. These inconsistencies suggest that some administrators may not understand the specific components of PCC and thereby under-report their actual practices when asked about PCC in general. Conversely, some administrators may conceptualize their work as PCC but that work may not be supported by written protocols.

Provider barriers to PCC delivery include time constraints and competing priorities, complexity of the topic, and a lack of resources.[8] Therefore, strategies for promoting delivery of appropriate PCC screenings include establishing written protocols, conducting staff training, and implementing system supports that simplify decision making (e.g., electronic clinic decision support systems to triage risk factors and remind providers of screening interval recommendations). The QFP recommendations are useful in clarifying the scope of PCC that should be provided as part of quality care for women and men of reproductive age.[1]

Much of the existing literature describing PCC relies on postpartum women's recollections of clinical encounters that occurred more than a year prior.[9–13] As the data used in this analysis represent a cross section of randomly selected publicly funded clinics that offer family planning, this report adds to the small literature that is based on providers' report of reproductive services,[6,7] and provides a unique snapshot of the extent to which administrators in the U.S. report delivering PCC to women and men seeking family planning services.

### Limitations

Misclassification is possible owing to under-reporting or related to PCC frequency, as PCC was undefined. Additionally, the respondents' familiarity with the medical operations of their clinics is unknown. Self-reported data always raise the possibility of desirability bias. For example, subjective assessments of PCC delivery frequency may be inflated. On the other hand, estimates of having written protocols for PCC screenings may not have been affected because written protocols are verifiable. The decision to combine response options *occasionally* and *frequently* to describe PCC delivery is debatable. Some might argue that there is little difference between *occasionally* and *rarely*, and suggest those should all be lumped together with *never*. However, using *frequently* alone to define PCC delivery did not materially impact results. Selection bias is also possible. The response rate was suboptimal (49%), although perhaps higher than most healthcare provider surveys.[14] To limit potential non-response bias, weights were used in all analyses to increase accuracy of estimates. Additionally, the data about specific PCC screening services do not describe actual delivery of services—rather, just the presence of a written protocol recommending routine provision of those services. Having written protocols does not guarantee implementation or service delivery. Finally, the data do not address the quality of the written protocols.

## Conclusions

This report illuminated the fact that many clinics are likely already providing PCC for women and men. Moreover, it highlighted clinics' characteristics where PCC delivery could be improved, and may serve as a baseline for evaluating alignment of medical practices for providing PCC services with implementation of

recommended quality family planning services.[1] Ongoing surveillance of medical provider PCC practices is needed to monitor progress on implementation of QFP. Additional research is needed to improve understanding of possible barriers to delivery of PCC that may explain the differential PCC practices that were reported by clinic characteristics. Finally, well-designed epidemiologic studies are needed to build the evidence of the impact of specific PCC services on improved health outcomes for women, men, and infants.

The findings and conclusions in this report are those of the authors and do not necessarily represent the official position of CDC.

All authors participated in drafting of this paper. Additionally, C. Robbins conducted the analyses; C. Robbins, L. Gavin, and S. Moskosky participated in data interpretation; and L. Gavin, L. Zapata, M. Carter, C. Lachance, and S. Moskosky participated in study design and data collection.

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## Appendix

### Supplementary data

Supplementary data associated with this article can be found at http://dx.doi.org/10.1016/j.amepre.2016.02.013.