The Delaware Contraceptive Access Now Evaluation
Title X Patient Survey

Technical Documentation

Waves 1 & 2

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Michel Boudreaux[1], Matthew Manierre[2], Steven Martin[3], Daniel Marthey[1], Michael Rendall[4]

1. Department of Health Policy and Management, University of Maryland, College Park
2. Clarkson University
3. Center for Drug and Health Studies, University of Delaware
4. Maryland Population Research Center and Department of Sociology, University of Maryland, College Park

Introduction

Purpose

The goal of the Title X Patient Survey was to gather information from a representative sample of Delaware Title X patients about their attitudes, behaviors, beliefs and experiences of contraception and contraceptive care. The survey used a pre-post visit design in which subjects were interviewed immediately prior to and then immediately after their health care encounter so that investigators could measure changes to contraceptive related knowledge, attitudes, and behaviors that resulted from the encounter. The survey was fielded in the context of the Delaware Contraceptive Access Now initiative, a private-public program aimed at improving access to contraceptive care in the state of Delaware. A detailed description of the program is provided elsewhere.[1]

Three repeated cross-sections of the survey are planned. Two waves were completed at the time of this writing. Fielding occurred in the early intervention phase, the late intervention phase, and will occur in the post intervention phase. Wave 1 was fielded from June 2017 – December 2017. Wave 2 was fielded from November 2018 to August 2019. The fielding of Wave 3 has been postponed due to the ongoing COVID-19 pandemic (see below).

Given that the study could not practically provide a comparison group and a true pre-intervention time point, the data are not well-suited for analysis of the intervention's causal impact. Rather, the survey was designed to gather information about the experiences of patients and the context in which the intervention took place.

The Title X population was of particular importance to the Delaware Contraceptive Access Now Evaluation team because Title X providers were particularly active in the DelCAN intervention. Furthermore, a major component of the intervention was to ensure that all women in the state, regardless of ability to pay, could access a free or low-cost contraceptive of their choice. The Title X system plays an important role in delivering such publically subsidized services. Prior to the intervention, all insured patients (both publically and privately insured) could obtain services without out-of-pocket fees due to the Affordable Care Act's preventative care mandates. Uninsured patients under 100% of the poverty line could obtain free care from the Title X system. Thus, the main population that stood to gain access from reductions in contraceptive costs were uninsured patients living above poverty – a population primarily served by Title X providers.

[1] Choi, Y.S., Rendall, M.S., Boudreaux, M, and Roby, D.H. (2020). Summary of the Delaware Contraceptive Access Now (DelCAN) Initiative. June 4, 2020. https://popcenter.umd.edu/delcaneval/summary-init

The Title X System

Title X is the only federal program that is specifically focused on reproductive health care services.[2] It is a competitive grant program that provides grants to non-profits, state and local governments for the delivery of family planning related health care services.[3] Family planning services include care that is intended to serve patients seeking a pregnancy or seeking to avoid a pregnancy. Such care includes contraceptive counseling and contraceptive provision, STI and HIV services, pregnancy testing and related services, but does not include abortion services.

Title X grantees must provide confidential family planning services to all patients regardless of their ability to pay, with priority given to low-income patients. Uninsured patients are charged using a sliding scale fee schedule that varies by federal poverty level guidelines.[4] Table 1 describes the fee schedule in 2018.[5] The fee schedule uses a co-insurance model in which the patient is charged a fraction of the cost of the service, depending on their poverty level.

Table 1. Title X Sliding Scale Fees in 2018

Poverty Level	Annual Income Max (Family of 4)	Co-Insurance (Patient Liability)
0%-100%	$25,100	0%
101%-133%	$33,383	10%
134%-150%	$37,650	30%
151%-185%	$46,435	50%
186%-200%	$50,200	70%
201%-250%	$62,750	90%
251%-	--	100%

SOURCE: See footnote 5.

2019 Rule Changes

The Trump administration instituted a set of important changes to federal regulations during the fielding period of Wave 2 of the Title X Patient Survey.[6] Rules that required the provision of a comprehensive set of modern family planning services were relaxed such that clinics could provide only natural family planning options. More funds were steered towards faith based providers. Finally, Title X providers had to institute physical and financial separation from abortion providers and a "gag-rule" was instituted that prevented the use of Title X funds for abortion counseling and referral.

[2] https://opa.hhs.gov/evaluation-research/title-x-services-research/family-planning-annual-report
[3] https://opa.hhs.gov/sites/default/files/2020-10/opa-title-x-family-planning-program-50th-2020.pdf
[4] https://opa.hhs.gov/sites/default/files/2020-10/opa-title-x-family-planning-program-50th-2020.pdf
[5] Data were obtained from Christina Farmer at Delaware Division of Public Health
[6] https://www.kff.org/womens-health-policy/issue-brief/proposed-changes-to-title-x-implications-for-women-and-family-planning-providers/

In response to the gag-rule, 23% of clinics across the country left the system, including all Planned Parenthood clinics and all clinics in a handful of states.[7] Guttmacher estimated that gag-rule would reduce system capacity by nearly 50%.[8] However, in many places, including Delaware, alternative funding sources were obtained. Administrative data suggests a 21% reduction in caseloads in 2019.[9]

The Delaware System

Delaware's Division of Public Health is the sole Title X grantee in the state. It operates its own set of clinics ("State Service Centers") and distributes funds to a number of sub-recipients. These sub-recipients include all the FQHC's in the state, Planned Parenthood of Delaware (prior to 2019), school based health centers, and a number of independent clinics. In 2015, there were 29 sub-recipients that operated over 60 clinics. The number of sub-recipients and clinics varies from year to year as clinics enter and exit the system.

In response to the gag-rule the state reallocated funds to provide support to Planned Parenthood. While no longer officially part of the Title X system (through at least 2020), the clinics remained grantees of the state and maintained their services. For the purpose of the survey, Planned Parenthood is always considered a Title X clinic.

Response to COVID-19

In March of 2020, between the second and third survey waves, COVID-19 necessitated lock-downs across Delaware and much of the country. Delaware's Title X clinics responded by offering drive-through and telehealth services. Conversations with program administrators suggest that many clinics experienced substantial reductions in patient volume. Information about the impact of COVID-19 on the national Title X system can be found elsewhere.[10] The survey team has delayed the third wave of administration in the hopes that vaccine distribution will allow in person interviewing to take place for the final wave.

[7] https://www.kff.org/womens-health-policy/issue-brief/data-note-impact-of-new-title-x-regulations-on-network-participation/
[8] https://www.guttmacher.org/article/2020/02/trump-administrations-domestic-gag-rule-has-slashed-title-x-networks-capacity-half
[9] https://www.kff.org/womens-health-policy/issue-brief/current-status-of-the-title-x-network-and-the-path-forward/
[10] https://societyfp.org/research-support/abortion-clinical-research-network/network-study-family-planning-visits-during-the-covid-19-pandemic/

Questionnaire Development

Survey instruments were developed through a collaboration between investigators at the University of Maryland, College Park and the University of Delaware, with input from Delaware's Division of Public Health.

Three major principles guided question development. First, a set of key items would be asked in both the pre and post visit interview so that investigators could gauge changes to those items in response to the clinical encounter. Second, we wished to use survey items that had been used in previous instruments, Third, we wished to harmonize question wording, where possible, with other data collection platforms used in the evaluation. These included the Statewide Survey of Reproductive Age Women in Delaware and Maryland[11], the Behavioral Risk Factor Surveillance System (BRFSS), and the Youth Risk Behavioral Surveillance System (YRBSS).

Development of question wording was also shaped by the mode of administration, which were tablet computers hosting a Qualtrics instrument. Use of tablets allowed for more complicated skip patterns than would be allowed in a paper and pencil format and reduced the time and costs of transcribing.

Four general themes were of interest to the investigators: contraceptive use (past, present and future intentions), contraceptive attitudes, beliefs and knowledge, reproductive experiences (including those related to the clinical encounter), and intervention specific exposures (e.g., to the media campaign). In addition to these content themes, the investigators were interested in measuring a set of socio-demographic characteristics (race, age, health insurance, income, etc.).

Items relating to these topic areas were obtained from existing surveys wherever possible. Sources included the 2009 National Survey of Reproductive and Contraceptive Knowledge, The Statewide Survey of Reproductive Age Women in Delaware and Maryland, the National Survey of Family Growth, BRFSS, and the American Community Survey. In addition, a number of items, particularly those related to attitudes and beliefs, were pulled from individual studies, including:

- Payne et al. (2016). A qualitative study of young women's beliefs about intrauterine devices: fear of infertility. *Journal of Midwifery and Women's Health*.
- Gomez et al. (2015). The relationship between contraceptive features preferred by young women and interest in IUDS: an exploratory analysis. *Perspectives on Sexual and Reproductive Health*.
- Bracken & Graham (2014). Young women's attitudes towards, and experiences of, long-acting reversible contraceptives. *European Journal of Reproductive Health Care*.

[11] https://popcenter.umd.edu/delcaneval/survey

- Guendelman et al. (2000). Perceptions of hormonal contraceptive safety and side effects among low-income Latina and non-Latina women. *Maternal and Child Health Journal*.
- Wilson et al. (2013). Practices and perceptions among pediatricians regarding adolescent contraception with emphasis on intrauterine contraception. *J Pediatric Adolescent Gynecology*.
- Harper et al. (2008). Challenges in translating evidence to practice: The provision of Intrauterine Contraception. *Obstetrics & Gynecology*.
- Bracken & Graham (2014).). Young women's attitudes towards, and experiences of, long-acting reversible contraceptives. *European Journal of Reproductive Health Care*.

After an initial draft of the questionnaire was developed, a group of research assistants at the University of Maryland and the University of Delaware that were not involved in question development took the survey and provided feedback on places of confusion. This version also underwent a readability test using Flesch-Kincaid to ensure an 8th grade reading level. Edits were incorporated and then the instrument was programmed into Qualtrics. The Qualtrics version underwent another round of testing to determine expected survey length and to diagnose any skip pattern errors.

The instrument was originally written in English. It was subsequently translated into Spanish by a pair of translators at the University of Maryland and the University of Delaware who came to consensus on items of disagreement.

The questionnaire items and fielding procedures and protocols were reviewed and approved by the State of Delaware Human Subjects Research Committee and the University of Delaware IRB.

Sampling and Administration

Target Population

The target population was female patients age 15-44 obtaining care for themselves at a Title X clinic. The target population included family planning users (patients seeking to obtain or avoid a pregnancy) and non-family planning users seeking care for other reasons. A multi-stage probability based sampling procedure was developed to obtain a representative sample of the target population.

Wave 1 Clinic Sample

The first stage was the selection of clinics. The clinic frame was composed of all Title X clinics operating in the State of Delaware in 2015. One Title X clinic opened in 2016 (A Planned Parenthood site) and was not included in the frame. The clinic list was obtained from online sources and was then submitted to the director of the state's Title X program to be cross-checked. Through collaboration with the state Title X director, a number of clinics were excluded from the frame for substantive reasons. All clinics operated by Henrietta Johnson Medical Center were excluded because the agency had recently halted Title X family planning activities and then restarted them resulting in insufficient patient flow and patient tracking infrastructure needed to draw the sample. All School Based Health Centers were excluded because of the difficulty (and time delay) in obtaining needed background checks for interview staff. A secondary but important issue with the School Based Health Centers was that local issues (parents and school boards) led to differing availability of family planning at the SBHCs, and those SBHCs offering family planning did not want increased publicity of doing so. Finally, three State Service Center clinics were excluded because they had ceased seeing family planning patients.

The clinic frame was sorted by a measure of size that was equal to the number of unique female Title X patients, identified by the 2015 Family Planning Annual Report (FPAR). The FPAR is an administrative data source that tracks patient volumes and patient characteristics. Title X clinics are required to submit data annually as a requirement of their grant. National and state data from FPAR is publicly available. Clinic specific data was obtained through special request to Delaware Division of Public Health and through direct communication with the clinics.

The frame was stratified into a self-representing (SR) stratum in which all sites were selected with certainty (clinics with a measure of size over 450) and a non-self-representing stratum (NSR) from which a random sample of clinics was drawn. The 13 clinics from the NSR stratum were sampled using a systematic sample (after sorting the NSR strata by agency and size). The sampling interval (K) was set to 4, implying a sampling fraction of 0.3. The final clinic sample size was composed of 8 certainty clinics and 3 NSR clinics for a total of 11 clinics in sample. A list of the sampled clinics is provided in Table 3.

Sampling of Interview Time

Weekend days were excluded from the list of possible interview days based on conversations with clinic staff who communicated that patient flow on weekend days was mainly composed of pediatric cases and had little family planning volume. Planned Parenthood also requested that interviewers not be present on days in which abortion procedures were performed because regular family planning visits were very limited on those days.

All other days and hours of operation, except those listed above, were eligible times for interview. When interview staff visited a clinic, they recruited patients during all operating hours on the day of the visit.

To ensure that every clinic had a probability of being visited by an interviewer on any given day during the fielding period (June 2017 to December 2017), while also maintaining the operational flexibility to efficiently distribute resources between clinics, the order in which agencies were visited was randomized. For the purpose of the agency order randomization, the NSR strata were grouped into a single agency. Each agency operates between 1 and 3 clinic sites that were included in the sample. The order was determined by generating a pseudo-random number for each agency and sorting the agencies from highest to lowest.

Within each agency the timing of clinic visits was based on expected patient flow and interviewer resources. If there was not enough patient flow in given agency to occupy all available interviewer resources then interviews were conducted in the next agency on the list at the same time. However, to maintain the integrity of the randomized order, interview staff were never to be in more than 2 agencies at once. The realized fielding dates of each clinic, and their randomized order, are provided in Table 3.

Table 3. Wave 1 Fielding Order					
Agency	**Clinic**	**Strata**	**Assigned Order**	**Realized Fielding Dates**	
PPDE	Newark	SR	1	6/12/2017	7/5/2017
PPDE	Wilmington	SR	1	7/10/2017	7/27/2017
PPDE	Dover	SR	1	7/17/2017	7/27/2017
LaRed	Georgetown	SR	2	8/7/2017	9/22/2017
State Service	Georgetown	SR	3	8/2/2017	10/5/2017
CFF	Wilmington	NSR	4	6/12/2017	8/24/2017
State Service	Milford	NSR	4	8/16/2017	10/5/2017
PPDE	Dover	Replace DSU	4	11/2/2017	12/5/2017
Westside	Newark	SR	5	8/17/2017	9/7/2017
Westside	West 4th	SR	5	9/6/2017	11/3/2017
Westside	Bear	SR	5	9/11/2017	9/13/2017
NOTES: CCF is Children and Family First. PPDE is Planned Parenthood of Delaware. The 3 original NSR sampled clinics were DSU, Milford, and CFF. DSU stopped seeing patients and their sample was allocated to PPDE Dover.					

Sampling of Patients

The number of total patients to be sampled in each wave was set at 500, and each site's yield was proportionate to the measure of size.

Clinic staff requested that, when interviewers were present, all eligible patients be recruited. This request was made due to concerns that under a patient sampling protocol, some patients would be offered a participation incentive, but not others. Thus, no within-clinic time sampling of patients was done. However, in a very few instances patient flow could exceed available resources (either tablets or interview staff). In those instances once an interviewer/tablet became free, the patient waiting in the waiting area the shortest amount of time was recruited first. If that patient declined the interview then the interviewer waited for the next patient to arrive.

Delaware State University (DSU)

DSU was initially sampled as part of the NSR strata. However, just before the interview staff began fielding there, we learned that DSU had stopped seeing Title X patients. All patients were referred to Planned Parenthood in Dover. On Wednesdays, a Planned Parenthood provider traveled to DSU to see patients that could not travel, however, these patients were not being funded by Title X. To overcome the loss of 42 cases called for by the sample plan, the sample allocated to DSU was re-allocated to Planned Parenthood of Dover (a SR clinic). Thus, the

Planned Parenthood in Dover site ended up being oversampled and the effective sampling fraction of the NSR stratum became .23.

Administration of Wave 1 Interviews

Survey administration was guided by a fielding guide (See Appendix 1). All fielding representatives were trained on the manual and the instrument prior to the start of survey administration.

A diverse fielding staff of women was chosen to align interview staff with the demographics of the target population. Spanish speaking fielding staff were deployed purposively at clinics seeing large numbers of Spanish speaking patients. However, Spanish speakers were usually available at all clinics. All fielding staff had previous experience conducting health related surveys in other contexts. All had completed CITI training for human subject interviews.

Potentially eligible subjects were recruited in the clinic waiting room. Subjects provided informed consent/assent prior to taking the survey. A $40 WaWa or Walmart gift card was provided as an incentive. Prior to taking the self-administered tablet survey, a series of meta data fields were filled out by the fielding staff which tracked eligibility, the location of the interview, and response disposition. A Qualtrics record was created for all subject, including ineligible subjects and refusals.

Prior to being called back for their clinical appointment, subjects took the "pre-visit" portion of the self-administered survey. If the subject did not finish the pre-visit questionnaire, they stopped wherever they were when they were called back. When the subject exited the clinical encounter the completed the "post-visit" portion. If the subject had not finished the pre-visit portion of the interview, they resumed with the demographics section of the pre-visit interview, which came after all of the pre-visit items that had an analogue in the post-visit portion. Subjects were not eligible for the incentive unless they completed both portions of the survey.

Subjects that expressed desire to complete the post-visit interview, but could not complete it at the clinic were offered the option of finishing the post-visit interview via an inbound telephone interview. However, subjects had a strong incentive to finish the post-visit portion in person to obtain the incentive. No subjects completed the post-visit interview via in-bound telephone.

Errors in Wave 1 Administration

Two errors were experienced in Wave 1 administration. First, the tracking of ineligible and refusals via Qualtrics was not successfully implemented until half-way through fielding, and hard-copy interviewer reports were incomplete. The response rate section below describes how we overcame that challenge. Second, two skip pattern errors in the instrument inadvertently skipped respondents out of questions that were intended to be asked. Details of the skip pattern errors are provided in Appendix 2 and were corrected before Wave 2 administration.

Wave 2 Sampling and Administration

The same clinics drawn for Wave 1 were used for Wave 2, with two exceptions (see below). The use of the same clinics was motivated by our desire to capitalize on clinic relationships developed in Wave 1 and so that we could analyze clinic specific change over time.

The Milford State Service Center stopped seeing patients just prior to Wave 2. They were removed from the frame and not replaced. All clients were referred to Seaford State Service Center. After allocating a reasonable share of clients expected to attend Seaford as a result of the Milford referrals, the Seaford clinic had an expected measure of size of 489. Because it exceeded the 450 threshold distinguishing the SR strata and NSR strata, Seaford was considered to be an SR strata in Wave 2 and selected with certainty.

DSU began seeing Title X patients again in the fall of 2018. It therefore was eligible to be in sample for Wave 2. However, due to a miscommunication between the sample designers and the fielding administration team, DSU was not visited during operations. The only other NSR sampled clinic (after the exclusion of Milford) was Children and Family First, which had a very small client count. Less than 5 subjects were interviewed from that clinic. In the development of weights, the NSR strata was completely ignored such that the target population of the Wave 2 survey was limited to large clinics.

The measures of size were adjusted for the Wave 1 totals by updated agency level counts from Delaware DPH. The changes in counts were assumed to occur evenly across the clinics within each agency such that clinic shares within agency were assumed constant over time. As noted above, during this update, the Seaford Center had a measure of size > 450 (after adjusting the count to reflect expected increases in patient flow from Milford referrals).

The clinic ordering was re-calculated using the same random ordering procedure as was used in Wave 1. The Wave 2 assigned order and realized schedule is provided in Table 4.

Table 4. Wave 2 Fielding Dates					
Agency	**Clinic**	**Strata**	**Assigned Order**	**Realized Fielding Dates**	
CFF	Wilmington	NSR	1	11/5/2019	11/7/2019
DSU			1	NA	NA
LaRed	Georgetown	SR	2	11/28/2018	3/21/2019
State Service	Georgetown	SR	3	1/2/2019	3/29/2019
State Service	Seaford/Milford	SR	3	4/23/2019	6/13/2019
Westside	West 4th	SR	4	2/21/2019	3/21/2019
Westside	Newark	SR	4	1/2/2019	3/21/2019
Westside	Bear	SR	4	3/13/2019	4/5/2019
PPDE	Newark	SR	5	7/1/2019	8/8/2019
PPDE	Wilmington	SR	5	7/15/2019	9/26/2019
PPDE	Dover	SR	5	8/21/2019	10/7/2019
NOTES: CCF is Children and Family First. DSU is Delaware State University. PPDE is Planned Parenthood of Delaware. The 3 original NSR sampled clinics were DSU, Milford, and CFF. DSU was not fielded. Milford stopped seeing patients. CFF was fielded but had only a handful of subjects and was disregarded in weighting.					

Errors in Wave 2 Administration

There were no known errors in the administration of Wave 2.

Response Disposition and Response Rates

Response Disposition

Response rates are a function of the response disposition of each sampled case, where a sampled case was defined as a subject invited to participate in the survey.

The response disposition of every case in Wave 1 was not consistently recorded. Systematic tracking of dispositions via Qualtrics was not instituted until midway through Wave 1. As a result, dispositions at the Westside clinic in Bear, both State Service Center Clinics, and all 3 Planned Parenthood clinics are not observed in the Qualtrics record. Disposition data was collected via paper records. However, the completeness of these paper records is uncertain. Therefore, the true response rate is unknown for a subset of Wave 1 clinics.

Disposition data were collected via Qualtrics for all other Wave 1 clinics—LaRed, Westside (Newark and Wilmington locations), and Milford State Service Center using Qualtrics. The disposition of each case in Wave 2 was accurately recorded in Qualtrics.

To account for uncertainty about true refusals, we estimated two Wave 1 refusal rates to provide a range of likely values. Using the observed refusals (those captured via Qualtrics and paper record) we estimated a minimum refusal rate as the total observed refusals divided by the sum of completes, incompletes, ineligibles, and observed refusals. This represented a lower bound and assumed that there were no unobserved refusals. Second, we calculated an alternative estimate by imputing Wave 1 refusals by scaling the observed number of Wave 1 completions by the ratio of refusals to completions from Wave 2. This calculation was done within each site. For the subset of clinics (described above) where we observed all refusals, we can compare the imputed rate to the actual rate to gauge its potential accuracy.

Estimates for site-by-wave refusal rates are displayed in Tables 5 and 6. In Wave 1, where refusals were not completely captured, we estimated that based on the observed refusals the overall refusal rate was 10.6% (Table 5). Site-level refusal rates using the minimum observed refusals ranged from 3.1% at Planned Parenthood Newark to 57.1% at Newark Children and Families First (CFF). We found large inconsistencies between the imputed refusal rate (based on the ratio of refusals to completions from Wave 2) and the true refusal rate at sites where refusals were completely captured by Qualtrics. For example, the imputed refusal rate for LaRed was 5.1% while the actual refusal rate was 23.5%. These inconsistencies suggest that the site level refusal rate was not consistent across waves such that the Wave 2 experience is not a good proxy for Wave 1.

Wave 2 refusal rates are displayed in Table 6. We estimated an overall refusal rate of 14.6% across all sites in Wave 2 with a range from 4.2% at Seaford State Service Center to 22.4% at Georgetown State Service Center.

Comparing Table 5 and Table 6 suggests large variation in site-level refusal rates between waves. For example, we estimated a 23.5% Wave 1 refusal rate at LaRed, where Wave 1 refusals were completely captured, and a refusal rate of 5.7% in Wave 2. Given the inconsistent site-specific refusal rates between waves and the large differences between the imputed and true Wave 1 refusal rates, we have determined that the minimum refusal rate (based on observed refusals) is the best available estimate of the true refusal rates in Wave 1.

Table 5. Wave 1 Response Disposition

Site	Complete	Incomplete	Ineligible	Qualtrics Refusals	Paper Refusals	Imputed Refusals	Observed Refusals	Min. Ref. Rate (%)	Estimated Ref. Rate (%)	True Ref. Rate (%)
La Red										
Georgetown	43	4	5	16	0	2.82	16	23.53	5.14	23.53
Westside										
Newark	46	1	2	5	0	12.63	5	9.26	20.49	9.26
Wilmington	47	1	1	7	0	13.43	7	12.5	21.51	12.5
Bear	23	0	0	3	2	7.67	5	17.86	25	
SSC										
Georgetown	11	1	1	0	1	3.33	1	7.14	20.37	
PPDE										
Newark	120	5	1	0	4	11.09	4	3.08	8.09	
Wilmington	65	0	0	0	3	9.53	3	4.41	12.79	
Dover	94	2	0	7	5	23.5	12	11.11	19.67	
CFF										
Newark	3	0	0	0	4	.	4	57.14	.	
SSC										
Milford	9	3	0	1	0	0.39	1	7.69	3.16	7.69
TOTAL	461	17	10	39	19	84.39	58	10.62	14.74	15.18

Source: Title X Patient Survey, waves 1 and 2. **Notes:** Completes is the count of eligible respondents who responded to question 8. Incompletes are those who were eligible but did not respond to question 8. Women are considered eligible if they are females between 15-44 years of age, indicated they were at the clinic to get care for themselves, and provided consent to participate in the survey. Imputed refusals are the number of wave 1 completes multiplied by the ratio of wave 2 refusals/completes. Observed refusals are the sum of Qualtrics and paper refusals. The minimum refusal rate is defined as the number of observed refusals divided by the sum of completes, incompletes, ineligibles, and observed refusals. The estimated refusal rate is the number of imputed refusals divided by the sum of completes, incompletes, ineligibles, and imputed refusals. The true refusal rate is only observed in wave 1 for those sites with no paper recorded refusals. Complete refusal counts for these sites were obtained in Qualtrics. Children and Families First (CFF) was not surveyed during Wave 2 so no imputation could be completed for that site. SSC=State Service Center. PPDE=Planned Parenthood of Delaware.

Table 6. Wave 2 Response Disposition

Site	Completes	Incompletes	Ineligibles	Refusals	Wave 2 Ref. Rate (%)
La Red					
Georgetown	61	4	1	4	5.71
Westside					
Newark	51	2	6	14	19.18
Wilmington	42	0	3	12	21.05
Bear	42	4	3	14	22.22
SSC					
Georgetown	43	1	1	13	22.41
PPDE					
Newark	119	1	3	11	8.21
Wilmington	75	3	1	11	12.22
Dover	60	0	0	15	20
CFF					
Newark	0	0	0	0	.
SSC					
Milford/Seaford	23	0	0	1	4.17
TOTAL	516	15	18	95	14.75

Source: Title X Patient Survey, wave 2. **Notes:** Completes is the count of eligible respondents who responded to question 8. Incompletes are those who were eligible but did not respond to question 8. Women are considered eligible if they are females between 15-44 years of age, indicated they were at the clinic to get care for themselves, and provided consent to participate in the survey. The refusal rate is the number of refusals divided by the sum of completes, incompletes, ineligibles, and refusals. Children and Families First (CFF) was not surveyed during Wave 2. SSC=State Service Center. PPDE=Planned Parenthood of Delaware. CFF= Children and Families First.

Response Rates

Response rates were calculated for each wave and within wave for each specific site using the Response Rate 3 (RR3) definition from the American Association for Public Opinion Research (AAPOR).[12] The RR3 definition was used in order to be consistent with methods used in the Statewide Survey of Women in Delaware and Maryland.[13] The RR3 is the number of completions divided by the sum of completions, partial completions, and refusals. A case was deemed to be a partial completion if they did not answer an early question regarding the frequency of visits to the given clinic in the previous year (Question 8). An estimate of eligibility among the refusals is subtracted out from the count of refusals. That estimate was calculated as the proportion of eligible cases among non-refusals. That proportion was multiplied by the number of refusals to get an estimate of unobserved eligibility.

Wave 1 and Wave 2 RR3 response rates are described in Table 7. The overall Wave 1 response rate was 86.2%. Response rates ranged from 95.6 at the Wilmington Planned Parenthood site to 42.9 at Children and Families First.

As described above, we calculated Wave 1 response rates based on minimum observed refusals. However, sensitivity analyses (not shown) demonstrated that using either minimum refusals or imputed refusals had no meaningful effect on estimated response rates. For example, the overall Wave 1 response rate using minimum refusals was 86.2%, compared to 82.2% using imputed refusals.

In Wave 2, the overall RR3 response rate was 82.8%. While the average response rate was lower in Wave 2 than Wave 1, the absence of Children and Families First from the Wave 2 sample reduced the variance in response rates across clinics. Site-specific response rates ranged from 71.0% at Westside's Bear location to 95.8% at Seaford State Service Center.

[12] American Association for Public Opinion Research (AAPOR). *Standard Definitions: Final Dispositions of Case Codes and Outcome Rates for Surveys. 9th Edition.* 2016.
[13] Choi, Y.S., Rendall, M.S., Boudreaux, M, and Roby, D.H. (2020). Summary of the Delaware Contraceptive Access Now (DelCAN) Initiative. June 4, 2020. https://popcenter.umd.edu/delcaneval/summary-init

Table 7. Response Rates by Wave and Site		
	AAPOR RR3	
	Wave 1	*Wave 2*
LaRed		
Georgetown	69.96	88.48
Westside		
Newark	88.81	77.77
Wilmington	85.68	78.95
Bear	82.14	71.01
SSC		
Georgetown	85.12	75.82
PPDE		
Newark	93.05	91.03
Wilmington	95.59	84.40
Dover	87.04	80.00
CFF		
Newark	42.86	--
SSC		
Milford/Seaford	69.23	95.83
Total	86.20	82.84

Source: Title X Patient Survey, waves 1 and 2. For RR3, the estimated eligibility rate of the unobserved=eligibility rate of those observed non-refusals. Children and Families First (CFF) was not surveyed during Wave 2. SSC=State Service Center. PPDE=Planned Parenthood of Delaware.

Weighting Procedures

Target Populations

The Wave 1 target population was patients seeking care for themselves at Title X clinics who identified as women age 15-44. Patients at school-based health centers and at the Henrietta Johnson clinic were excluded from the target population. The Wave 2 target population was the same as above, but excluded patients at smaller clinics (less than 450 patients in 2015). In other words, the Wave 2 target population is limited to larger clinics.

The target population at both waves included both Family Planning Users (patients at clinics with a Title X grant that received a service to obtain or avoid a pregnancy in the calendar year) and other patients that sought care at a clinic with Title X funding, but did not obtain a family planning service. Separate weights are being created for the family planning user population and the total target population. These weights can be used to produce representative estimates of their respective target populations.

Complete Case Definition

Weights were constructed for eligible participants (women 15-44 seeking care for themselves), that consented to interview and answered the question regarding the number of times they had visited the clinic in the previous year (Question 8).

Weights pertaining to the target population of family planning users were generated for a subset of the above sample. Namely, the family planning sample was defined based on survey items that suggested:

1. They were at the clinic to receive birth control, contraception, or family planning; and/or
2. They were at the clinic to receive help to avoid or delay pregnancy; or
3. They were at the clinic because they were trying to get pregnant

Given that the above survey measures were needed to identify the family planning user sample, the participant must have responded to the given item in order to be eligible for weighting. No imputation was attempted on these items.

Calculation of Family Planning User Weights

In both waves, sampling weights that varied at the site level were defined as the inverse of the probability of response. The probability of response combines selection probabilities, probability of being an eligible case, and response probabilities. Basing the weights on the probability of response combines several distinct steps common in weighting methodology.[14] For example, it is

[14] Wolter K, Chowdhury S, Kelly J. Chapter 7 - Design, Conduct, and Analysis of Random-Digit Dialing Surveys. In: Rao CR, ed. *Handbook of Statistics*. Vol 29. Handbook of Statistics. Elsevier; 2009:125-154. doi:10.1016/S0169-7161(08)00007-2

typical to first construct a base weight as the inverse of the probability of selection. Then to apply a ratio adjustment to allocate all the weight to cases with known eligibility and finally to allocate all the weight to responding cases, within weighting cells that are thought to have homogeneous response propensity. Our approach is mathematically equivalent, but combines each step into a single calculation. Weighting cells were defined by site.

We assumed that patients only visit a clinic once during the fielding period and thus cannot appear in the sample multiple times within wave. Because the denominator of the probability of response is the number of unique patients, the weights were not deflated as might be done in a random digit dial survey that must correct for multiple phone lines per household to generate household or person weights.

The specific weighting procedure for creating family planning user weights was as follows. At Wave 1, the clinic-level response fraction was determined by dividing the number of family planning users among sample respondents by the 2015 FPAR caseload (measure of size). At Wave 2, the measure of size represented 2016 volumes. A lag in volumes versus the fielding dates was due to reporting lags. The clinic weight is the inverse of the clinic response fraction. In Wave 1, the clinic sampling frame was stratified by self-representing and non-self-representing sites (NSR). Therefore, the Wave 1 clinic weight was multiplied by a strata weight (1 for certainty clinics and 13/3=4.33 for non-self-representing strata).

The final weight took the following form:

$$\textit{Family Planning Weight} = \left(1/\left(\frac{Responding\ Family\ Planning\ Users}{Measure\ of\ Size}\right)\right) \times (1/Strata\ SamplingFraction)$$

Respondents who were not identified as family planning users received a weight equal to 0.

Calculation of Total Universe Weights

Weights for the total universe (which includes family planning users and other patients) have not yet been calculated as of January 2021.

Appendix 1: Fielding Manual

Eligibility

- Women
- Age 15-44
- At the clinic to get care for themselves (for ANY reason except to have an abortion preformed). If they are not getting care for themselves that day, they are not eligible
- Respondent speaks either English or Spanish to a sufficient ability to provide informed consent.

Recruitment

- You should attempt to recruit every eligible woman that comes into the clinic.
- In some instances it might be obvious the person is not eligible (toddlers or very elderly women). However, it's better to ask for someone's age and gender and reason for being at the clinic versus guessing if they are eligible.
- On interview days, interviewers will be at the clinic from the moment it opens until the moment it closes. It is important that on interview days that the waiting room is never left totally unattended by the interview staff (to go to lunch, etc.).
- In some instances it might be that there are not enough interviewers to recruit and interview every woman at the clinic. When this happens, when an interviewer becomes free she should recruit the woman who has been waiting in the waiting room for the least amount of time. This person can be identified by consulting the front desk staff and looking at the sign-in sheet and calling the person's name. When the next interviewer becomes free she will do the same thing.
    - When this happens interviewers should call/text {…} and s/he might be able to send more interviewers to help.

Non-Responders

- Not all women will want to participate. However, it is ESSENTIAL that you fill out the survey questions about them on the tablet. Data on the non-responders is just as important as data from responders. The questions are minimal, but filling them out ensures we record their "non-response."

Instrument

- There are two parts of the survey. The respondent will fill out the first part before the visit starts and the second part will be filled out after the visit ends. There are some questions specifically for the interviewer to answer. These are at the start, at the end of the pre-visit, and after the post-visit interview.
- The survey will be filled out on a tablet computer
- Respondents may choose to have the instrument read to them if they like. However, we prefer respondents fill it out themselves.
- There are English and Spanish versions.

- Respondents may skip questions they don't want to answer

Interview Flow

- Both parts of the interview must be completed on the same tablet. Once an interview begins, then that tablet cannot be used for other interviews until the respondent completes both parts of the interview. At busy clinics it might help to have a system to remember what respondent was working on what tablet. This can be done by keeping track of the "subject id" that is appears on each screen of the instrument by writing it down on a post-it note and handing it to the respondent. The respondent can then hand the post it back to the interviewer who can cross-check it against subject ID on the screen.
- If respondent does not complete the first part of the interview before the visit starts, then they should start the second part of the interview with the demographics section, which begins with "What is your age (in years)?". However, if they have passed that part of the pre-visit interview, but have not finished the whole pre-visit interview, then they can start the second part of the interview where they left off.
    - Every day interviewers should keep track of how often this happens so that we can make adjustments if it is happening too frequently.
- In some clinics (Planned Parenthood) the respondent can take the tablet back to the exam room. However, the respondent should be instructed to only complete the first part of the interview and wait to complete the second part until after they exit their visit.
- In most clinics you should not allow the respondent to take the tablet to the exam room. At other clinics (like CFF) the respondent might go back to the exam room and then come back to the waiting room to wait more before going back to the exam room a second time. Interviewers will receive specific orientation to each clinic site.

Incentives

- Respondents will receive a $40 WaWa (convenience store) or Walmart gift card
- Respondents must complete both parts of the survey to receive the incentive
- Respondents must sign for the incentive, but do not have to provide SSN

Completion of the Post-Visit Interview

- In most cases the post-visit interview will be completed in the clinic waiting room. This is our preference
- However, if the respondent is not able to remain at the clinic to finish, then they can finish later by phone. The interviewer must give the respondent a business card that lists CDHS phone number and they MUST write the respondents Subject ID on the card. The interviewer should explain to the subject that they must have this number when they call or they will not be able to complete the interview and receive the incentive.
- If a respondent calls CDHS an interviewer can complete the post survey with them using the phone interview follow-up instrument. That instrument will prompt the interviewer to record the respondents subject ID. The phone follow-up instrument includes instructions about how the respondent can obtain their incentive.

Data Transfers

- After each day at a clinic the tablets should be brought back to CDHS to have that day's data transferred.

Appendix 2: Wave 1 Instrument Errors

In Wave 1 of the Title X clinic survey data, there was an error in the Qualtrics syntax where some respondents were incorrectly skipped past about one third of the pre-provider visit survey questions, including the questions about contraceptive method use and some of the demographic questions.

There were the three types of cases affected by the skip error:

1) People who left blank Q25_1_TEXT (“How many times have you been pregnant in your life?”)

2) People who filled Q25_1_TEXT with a word rather than a number

3) People who selected "A few times a month" for Q24 (“Thinking about the past 3 months, about how often did you have sex with a male?”) *and* entered 0 into Q25_1_TEXT.

As a consequence of these three issues, respondents were also incorrectly skipped past Question 80A in the post-provider visit survey. Q80A randomizes the contraceptive options to mitigate bias associated with the order the question appears. To minimize annoyance while taking the survey, Q80A's question ordering was pulled from Q34 when the options were first shown and shuffled. In theory, people who see Q80A should have seen Q34. Because of the Q25 glitch, they didn't. As a result, 80A has nothing to pull from so it displays nothing.

In total, 60 cases seem to have been affected. This is because of the issues with Q34 getting skipped due to the bugs with Q25 and Q24 (the interaction between "has sex a few times a month" and "been pregnant 0 times"; writing in a text answer into Q25, and anything else we have documented. Ninety-three people skipped Q34 who probably should have seen it. Due to people dropping out and being filtered out, Q80A was not shown properly to 60 people.