

Pre-Analysis Plan for Year 1 of the Michigan Contraceptive Access, Research, and Evaluation Study

**The Short-Run Impact of Subsidizing Contraceptives: Experimental Evidence from the First Year of
the Michigan Contraceptive Access, Research, and Evaluation Study**

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Draft: September 30, 2017

1. Introduction

This document describes the analysis plan for the papers that will result from the first year of the Michigan Contraceptive Access, Research, and Evaluation Study (M-CARES). Its purpose is to specify our planned analyses in advance in order to minimize concerns about specification searching and data mining.

M-CARES aims to quantify the effects of increasing the affordability of contraceptives on U.S. families. We will recruit 5,000 women ages 18 to 35 years old to participate at Planned Parenthood of Michigan (PPMI) clinics. Because PPMI patients with family incomes below the poverty line receive free services, only women with incomes above the federal poverty line and without insurance coverage for contraceptives will be included. Half of the study participants will be randomized to receive a voucher to purchase contraceptives of their choice at PPMI within 100 days.

M-CARES uses the randomization of vouchers as a research design and follows participants and their families in surveys and administrative data (e.g., tax data, credit reports, birth records, PPMI clinic records, and Census data). The goal of M-CARES is to examine both the short-run and long-run causal effects of increasing financial access to contraceptives. Because there is limited experimental evidence on this topic, we anticipate learning from our analysis and may perform additional analyses that are not specified here. For this reason, this analysis plan focuses only on our analysis of first year outcomes. We will post additional analysis plans for subsequent years after learning from the first year results.

One contribution of our study is to provide novel *experimental* evidence on the effects of financial access to contraception on contraceptive efficacy, pregnancy, and childbearing for U.S. women. We also generate experimental evidence on a wide range of less commonly studied outcomes. These include physical health and health care use; educational attainment and labor-market outcomes; financial security; relationship quality; mental health and well-being; and receipt of public benefits.

Administrative and survey data provide complementary perspectives on outcomes and also confer statistical advantages. A great advantage of administrative data is that they contain information from the universe (or a random sample of the universe) of the study population. This feature limits the role of non-response bias (Ashenfelter & Plant, 1990). In addition, administrative data are known to measure outcomes like wages or public benefit dollars better than self-reports on surveys, which ameliorates the potentially large role of this source of measurement error (Bound, Brown, & Mathiowetz, 2001). The limitation of administrative data is that it lacks information about many dimensions of women's lives (for instance, pregnancy intention, physical and mental health, attitudes and beliefs, relationship quality, and overall life satisfaction). We, therefore, supplement administrative data with survey data to capture these dimensions and describe in this plan methods to investigate and adjust for non-response.

This analysis plan for year 1 considers two primary outcome domains. First, we examine whether subsidies for contraceptives increase contraceptive efficacy and, especially, the use of highly effective, long-acting reversible contraceptives (LARCs). Second, we examine whether subsidies for contraceptives reduce unintended pregnancy and childbearing.

We will also conduct supplementary analyses relating to outcomes in the domains of economic self-sufficiency, financial stability, and neighborhood quality. (Analyses of other outcomes and more detailed analyses of long-term outcomes considered in year 1 will be conducted after follow-up surveys 2 and 4 years after enrollment.) We also examine the mechanisms for any effects on primary and supplemental outcome domains. These include analyses of (1) reasons for voucher-nonuse and resulting pregnancy and childbearing outcomes; (2) how vouchers affect out-of-pocket expenditures for reproductive health care and satisfaction with reproductive health care services; (3) more detailed analyses of effects at the extensive and intensive margins, and (4) heterogeneity in causal effects by age, race, income groups, as well as other pre-randomization characteristics.

The year 1 analysis plan is organized as follows. Section II describes the design of M-CARES, data sources, and the definition of outcomes. Section III describes our econometric framework and estimating equations.

Section IV describes our planned analyses of the PPMI patient population (as compared to the U.S. national population and Michigan population. Section III then describes the population of PPMI patients who are eligible for M-CARES and those who, conditional upon being eligible, elect to participate in M-CARES. Section V describes our expected first stage outcomes based on other studies and reports the resulting power calculations. Section VI outlines our planned analyses of primary outcomes, and Section VII details our supplemental analyses. Section VIII concludes with a discussion of difficulties in interpretations and caveats.

2. The Design of M-CARES Data Sources

M-CARES was motivated by several commonly cited findings. Nearly half of all pregnancies in the U.S. are unintended, and unintended pregnancies are five times more likely to occur for poor women relative to more affluent women (Finer & Zolna, 2016; Sedgh, Singh, & Hussain, 2014). They are also significantly more common among young and minority women.

Evidence regarding the potential costs of unintended pregnancies for individuals, society, and the economy is less commonly cited. In 2011, 42 percent of unintended pregnancies (excluding miscarriages) ended in abortion (Finer & Zolna, 2016). Roughly two thirds of unplanned births were funded by public insurance programs, primarily Medicaid (Sonfield & Kost, 2015). Quasi-experimental evidence suggests that unintended pregnancies have a variety of long-term implications for the lives of women and their families. Evidence that exploits changes in legislation permitting young women access to the Pill and the roll-out of the first federally funded family planning clinics in the U.S. suggests that unintended pregnancies in the 1960s and 1970s reduced women's educational attainment, employment, career advancement, and family incomes (Bailey, 2006; Bailey, Hershbein, & Miller, 2012; Goldin & Katz, 2002; Hock, 2008). They may also result in decreased marital stability and increased public assistance expenditures (Bailey, 2013; Bailey, Malkova, & McLaren, 2016). Ultimately, unplanned pregnancy may limit the life opportunities for children, contributing to the cycle of poverty (Ananat & Hungerman, 2012; Bailey et al., 2016).

Behavioral barriers such as inconsistent or inappropriate method use often result in contraceptive failures. Forty-one percent of unintended pregnancies occur among women who are using contraception in the month they become pregnant (Sonfield, Hasstedt, & Gold, 2014), suggesting that greater use of methods which do not require adherence (such as LARCs) may reduce high rates of unintended pregnancy. Although lack of provider training and contraceptive counseling are important barriers to increasing adoption of LARCs (Harper et al., 2015), financial barriers remain significant as LARCs have larger up-front costs compared to other reversible methods (Trussell, 2011).

Financial barriers to contraceptive access are likely to become more salient in the near future. President Donald J. Trump and the Republican-controlled Congress have promised to pass sizable funding cuts for reproductive health services. These plans include cuts of public funds to organizations like Planned Parenthood (Republican Party, 2016), which includes cutting both Title X funding as well as Planned Parenthood's ability to receive Medicaid funds. Second, proposed cuts to Medicaid (via block granting to states) are likely to cause significant cuts to reproductive health services for low income women. Both of these changes threaten to eliminate funding for the 8 million women currently served using public funds (Sonfield & Benson Gold, 2012). In addition, changes to the Affordable Care Act (ACA) may increase financial burdens among women with private insurance for receiving family planning services and reduce insurance coverage, thereby increasing the need for publicly-funded services as their funding is diminished.¹

¹ The ACA increased access to reliable contraceptives and family planning services for women with insurance, by increasing insurance coverage, requiring health insurance policies to cover family planning services, and reducing copays for these services (Jennifer J. Frost, Frohwirth, & Zolna, 2016).

Observational evidence suggests that the elimination of public funding for family planning services would increase rates of unintended pregnancy in the U.S. by 68 percent (Jennifer J. Frost et al., 2016) and that the public costs of these births would increase by 75 percent (Jennifer J. Frost, Sonnfield, Zolna, & Finer, 2014). Strong inferences about the policy effects of such cuts, however, are tempered by well-known limitations of observational evidence. M-CARES will provide novel experimental evidence to inform this policy discussion.

2.1 M-CARE Study Design and Inclusion Criteria

The population of interest is women at risk of unintended pregnancy in the U.S. For logistical reasons, M-CARES focuses on women in Michigan. Table 1 shows that Michigan women are very similar in their socio-demographic characteristics to women in the U.S. The one exception to this is that Michigan has significantly fewer Latina residents. Michigan also falls around the national median of many key behaviors related to contraceptive use, such as cohabitation, marriage, age at first birth, nonmarital childbearing, and teenage childbearing (Lesthaeghe & Neidert, 2006).

Table 1. Comparison of Women in Michigan to Women in the U.S. (excluding Michigan)

	U.S. women 18-35 years old		Michigan women 18-35 years old	
	Mean	S.D.	Mean	S.D.
White (non-Hispanic)	0.511	(0.500)	0.662	(0.473)
Black (non-Hispanic)	0.166	(0.372)	0.197	(0.398)
Hispanic	0.234	(0.423)	0.069	(0.253)
Married	0.268	(0.443)	0.246	(0.431)
High school graduate	0.877	(0.328)	0.905	(0.294)
Some college	0.618	(0.486)	0.655	(0.475)
College degree	0.310	(0.462)	0.295	(0.456)
Wage income (\$2016)	15,120	(17,220)	13,932	(15,399)
Number of kids	0.800	(1.185)	0.811	(1.202)
Number of kids less than 5 years old	0.339	(0.633)	0.349	(0.652)

Notes: Data is taken from the 2015 American Community Survey, for women ages 18-35 years old with family income less or equal to \$80,000 (\$2016).

2.1.1 Inclusion Criteria

M-CARES will recruit 5,000 women at Michigan PPMI clinics over at least 12 months who face potentially large out-of-pocket costs for highly effective contraceptives, especially LARC methods. In order to be eligible to participate in the study, the woman needs to be

- (1). 18-35 years old,
- (2). physically capable (biologically female and fecund) and at risk of having a pregnancy (has sex with men),
- (3). not pregnant at the time of enrollment and not wishing to become pregnant in the next 12 months, and
- (4). face some out-of-pocket costs for contraceptives at PPMI.

M-CARES’ assessment of #1-#3 are based on women’s answers to the surveyor and a brief set of screening questions. M-CARES’ assessment of #4 is based on PPMI’s own assessment of a patient’s fee scale. When a patient schedules an appointment at PPMI, PPMI uses a brief assessment of the patient’s ability-to-pay for services. This includes questions about the patient’s sources of income, the number of family members, and her insurance coverage. Based on this information, PPMI assigns each patient a “fee scale” that is used to determine the patient’s out-of-pocket costs for services. Patients who are below the federal poverty line (FPL) (fee scale 1 or A) will not be charged costs for contraceptive services by PPMI, regardless of their insurance coverage. Other patients are assigned fee scale of 2/B (101-150% FPL), 3/C (151-200% FPL), 4/D (201-250%), or 5/E (250%+ of FPL). Unless they have insurance to cover their visit, patients will be charged 25%, 50%, 75% or 100% for the services they receive at their PPMI visit.

2.1.2 Screening and Recruitment

We have contracted with NORC at the University of Chicago to hire and train professional surveyors to recruit women in PPMI clinic waiting rooms.

Recruitment proceeds as follows. A NORC surveyor will sit at a desk with information about the M-CARE study. During registration with PPMI, each woman will receive a small card from the PPMI receptionist indicating her fee scale and insurance coverage for her visit (Figure 1).

Figure 1. M-CARES Card Received at Check-in



After check-in, the NORC surveyor will approach each woman and introduce herself. Surveyor will ask women to complete a 5-minute screening survey, offering a \$10 reimbursement for her time. To protect participant’s confidential information and privacy, the screening survey will be self-administered on a tablet. Answers to the questions will determine if a woman meets the inclusion criteria. (See Appendix D for oral script and screening survey).

If a woman meets the basic inclusion criteria, the tablet will invite the woman to participate. Participation requires that the patient (1) agrees to be contacted to complete subsequent surveys; (2) consents for M-CARES to use her administrative data and the administrative data of her family.²

If the patient chooses to participate, the tablet will walk her through the informed consent process with assistance from a professional survey worker as needed. Enrollment will be conducted on the electronic tablet, which will encode consent responses and personal information such as name, SSN, date of birth, as well as contact information. (See Appendix D for informed consent form).

2.1.3 Voucher Randomization

The tablet will then randomize women to receive PPMI vouchers (which we call “PPMI gift cards”) for participating women and, for women randomized to receive a voucher, display the dollar amount of the gift card and a voucher identification number (VIN) on the tablet. The surveyor will write down the VIN and the voucher amount (VD) on the business card and return the card to the woman.

Each patient who meets the inclusion criteria and elects to participate in the study has an equal chance of receiving a voucher. Vouchers will be individually assigned and linked to name, birth date, and date of enrollment to prevent trading or giving away the vouchers. Vouchers can be used for *any* contraceptives and related services at PPMI for up to 100 days and participants may return to the PPMI clinic multiple times to redeem them if desired.³ The voucher amounts reflect the total out-of-pocket costs for an uninsured woman to have a Liletta IUD inserted after applying the PPMI the sliding scale (see Table 2). Liletta is the lowest cost IUD which costs \$492, including insertion and the medically required pregnancy test, for patients with a fee scale of 5/E. Out-of-pocket costs for women without insurance and fee scale 2/B to 4/E are lower as indicated.

Although the voucher amounts are determined as the PPMI price for the Liletta, M-CARES participants can use the voucher to purchase *any* type of contraceptives within 100 days. The voucher could, for instance, be used to select a more expensive IUD (e.g., the Mirena), but participants would pay out of pocket for the cost exceeding the voucher. The voucher could also be used for birth control pills, injections, hormonal patches, or any other kind of birth control (excluding abortion).

In addition, the tablet will present standard information provided by PPMI to inform the woman about the benefits and risks of different contraceptive methods and encourage her to talk to her health care provider about her needs. After this, the M-CARES participant will proceed with her appointment as planned. All contraceptive decisions and discussions with health care providers will take place in the clinic after recruitment.

Following the participant’s clinical visit, we will invite her to take a 25-minute baseline survey in the PPMI waiting room. We will offer the respondent \$60 cash to take the baseline survey in the clinic or \$40 to take it online after she leaves the clinic.

² On the consent form, “family” is explained to mean children and other individuals who are found on administrative records.

³ “Related services” are services medically required for the use of a specific contraceptive device. For an IUD, related services include a pregnancy test and insertion in addition to the device.

Table 2. Exact Voucher Amounts by Income Group and Voucher Category

Women's Income Group	PPMI Sliding Scale: % of Fee Charged	Randomly Assigned Voucher Amounts toward Remaining Out of Pocket Cost	
<= 100% FPL	0%	<i>No voucher assigned</i>	
101-150% FPL	25%	\$0	\$123
151-200% FPL	50%	\$0	\$246
201-250% FPL	75%	\$0	\$369
>= 251% FPL	100%	\$0	\$492

Note: FPL=Federal Poverty Line.

2.2 Data Sources

A central contribution of our analysis is that a combination of survey data and administrative data provide complementary perspectives. Appendix A describes the data sources used in this study, both for the analyses in year 1 as well as records that we will incorporate in future years. We include a summary of the data available from each data source in Appendix A Table A1, as well as provide a detailed description of the data sources and linking procedures. This section provides a brief overview of these data sources.

2.2.1 Screening Survey

The 5-minute screening survey takes place before recruitment into the study. Answers to its questions determine if a woman meets the inclusion criteria and also gather pre-randomization information. This information allows us to examine differences between the eligible and ineligible population as well as the correlates of study participation. In addition to the eligibility questions, it gathers socio-demographic characteristics (age, race, marital and cohabitation status, number of children, and education), information about the reason and payment for the PPMI visit, childbearing history, the use of contraceptives, and contraceptive method satisfaction.

2.2.2 Baseline Survey

The 25-minute baseline survey asks more detailed questions about how the participant used the voucher or, if she did not, why not; any changes in contraceptive use (or intent to change contraceptive use) since the screening survey; work and income; school enrollment; religion; birth and pregnancy history; birth control and healthcare access; plans for the future; childhood environment; attitudes and beliefs about contraception, relationship quality; and physical and mental health.

2.2.3 Subsequent Surveys

We will also follow M-CARES participants in subsequent surveys currently scheduled for 2 months and 4 years after recruitment. These surveys will be designed to measure the long-term effects of this intervention in many dimensions and include many of the same questions as the baseline survey: attitudes about and use of reproductive health care; pregnancies (including plans and intentions) and their outcomes; physical health and health care use; educational attainment and labor-market outcomes; relationship quality; mental health and well-being; and participation in programs. We do not yet have follow-up surveys drafted, because we are waiting on the year 1 results to inform their construction. We will submit a second pre-analysis plan after we analyze the results from year 1.

2.2.4 Administrative Records

With informed consent, we will link M-CARES participants and their family members to their administrative records as described in Appendix A. In addition to socio-demographic information, these records include, (1) PPMI patient records; (2) credit reports; (3) Tax Data (including IRS 1040s data); (4)

birth certificates; (5) Census, American Community Surveys and Current Population Survey (CPS) Annual Social and Economic Supplement (ASEC) from the Michigan Research Data Center (RDC);⁴ (6) Education data (K-college and National Student Clearinghouse, NSC); and (7) public program participation, including Supplemental Nutritional Assistance Program (SNAP), Temporary Assistance for Needy Families (TANF), and Medicaid MSIS and Medicaid T-MSIS, (8) criminal justice records. Note that most of these sources provide pre-randomization information data that we can use in our analysis. We expect to link almost all of M-CARES participants to (1)-(4) and the short-form Census (5). Of course, records which are specific to Michigan (or the use of a particular program or service, e.g., (7)) will miss individuals who lived out of state before enrollment or move out of state after enrollment.

PPMI records

PPMI patient data contain medical records with information on services obtained at PPMI, including the type of services, the date of services, the results of any tests or medical diagnoses, and payment information (amount and source). We will use these data to examine the use of contraceptives, pregnancy incidence, and use of reproductive health services, such as abortions.

Credit reports

Participants' credit records contain rich information on their credit history, such as credit accounts' payment status, outstanding balance, credit limit, and payment history (see Avery, Calem, and Canner (2003) for a detailed discussion of credit data). Based on results of previous work, we expect to link almost all M-CARES participants to credit records.⁵ We will use this data to study the impact of voucher assignment on financial well-being.

Tax data

Tax data allow us to characterize tax filing participants, before and after the intervention, in terms of (1) living circumstances (living with parents, single headship, living with married or unmarried partner, etc.), (2) the number of children in household (and when they were born and age at first birth), (3) renter/owner status, and (4) neighborhood quality (an important metric for standard of living). In addition, tax data allow us to assess (5) educational investments (via credits for these expenditures), (6) exact income from wage earnings in the previous year, (7) receipt/eligibility of the Earned Income Tax Credit, and (8) eligibility for other public assistance programs.

Birth certificates

Birth certificates are available for respondents and their children from the Michigan Department of Health and Human Services (MDHHS). We expect to find approximately 77 percent of participants and 91 percent of participants' children in these data.⁶ Each birth record contains the date of birth, mother's marital status, father's name, source of payment, gestation, number of prenatal visits, and the date of the first prenatal visit. This data allows us to validate mother reports of the number of children and study several types of outcomes: (1) childbearing (number of births, timing/spacing of births); (2) childbearing and partnership stability (non-marital childbearing, no father on the birth certificate); (3) health of a pregnancy (number of prenatal visits, the timing of the first prenatal visit, gestation length), and (4) receipt of public services (whether the birth was paid for by Medicaid).

Census, ACS and CPS

Censuses contain the data compiled from the questions asked of people in every housing unit in the U.S. in each census year. This detailed enumeration of everyone in the U.S. population by sex, age, race or Hispanic or Latino origin also provides variables indicating relationship to household head and marital status allow

⁴ Note: surveys such as the ACS and CPS will only contain information on a random sample of M-CARES participants.

⁵ The Oregon Medicaid Experiment study was able to link 97 percent of participants to the credit bureau data (Finkelstein et al., 2012).

⁶ In ACS2015, among children who reside in Michigan, are under 18 years old, whose mothers are 18-35 years old, and with family income less or equal to \$80,000, 91 percent were born in Michigan. Among women 18-35 years old residing in Michigan with family income less or equal to \$80,000, 77 percent were born in Michigan.

us to characterize all children living in the household and sub-family. From these data, we will construct measures of (1) living circumstances (living with parents, single headship, living with married or unmarried partner, etc.), (2) the number of children in household (and when they were born and age at first birth), (3) renter/owner status, (4) incarceration status, (5) neighborhood quality, and (6) address.

The American Community Survey (ACS) and Current Population Survey (CPS) data contain information for a random sample of M-CARES participants. If the sample overlap is large enough, we will use these records as a supplement to the Census. These surveys allows us to characterize participants in a similar way as the Census, but on a more frequent basis between Census years.

Education data

We will use two types of administrative sources for education data, the National Student Clearinghouse (NSC) and Michigan education data (K-college). The NSC provides information on enrollment, the beginning and ending date that a student is enrolled during each term, whether a student is enrolled full or part-time, whether a student has earned a degree, and the date the degree is earned. For the subset of students participating in the “DegreeVerify” service, we will be able to also obtain college major and degree type (e.g., BA). We expect to link the vast majority of our study participants to NSC data if they have pursued post-secondary education. We will work directly with school districts in Michigan to link our participants to their education records, therefore the final sample of linked respondents depends on district-specific rules for releasing data. In addition, we will not be able to link participants who obtained education outside of the state. Michigan K-college school records include classes taken, achievement test scores, grades, absenteeism, and school delinquency reports. Together, NSC and Michigan K-college records enable us to study education enrollment and attainment of the study participants.

Public program participation

We will use several types of data available to analyze public program participation: Medicaid, Supplemental Nutrition Assistance Program (SNAP), and Temporary Assistance for Needy Families (TANF). These data allow us to observe program enrollment and expenditures for study participants.

Criminal justice records

We expect that criminal records data will be available through the RDC starting in the summer of 2018. These data track an individual on a quarterly basis, collecting information their arrests, prison entries, and incarceration status (these data are not state-specific and include records from all contributing data providers).

2.2.5 Data Sharing

M-CARES surveys collect information on sensitive topics. Given the breadth of individual information reported in these surveys, study participants and Human Subjects Boards may be concerned about the indirect identification of study participants (even when the data are de-identified). To maximize response rates and limit the disclosure risks to study participants, we, therefore, will limit the sharing of de-identified participant information with the M-CARES team and people who work for organizations that make sure M-CARES research is done safely and properly, such as the University of Michigan and government research offices.

Similarly, administrative data are protected by the private (including PPMI and credit reporting agencies) and government agencies that collect them. These agencies are also concerned about the indirect identification of individuals, and we will not be authorized to disclose individual outcomes from these records. Only aggregated output meeting the strict disclosure guidelines of the relevant agency will be released for publication. These disclosure standards are also appropriate for PPMI (HIPPA) data and we will hold published results from the PPMI data to federally mandated security and disclosure standards.

Our consent form outlines these security and confidentiality measures for study participants. We ask study participants to share their individual data only with the M-CARES team and people who work for organizations that make sure M-CARES research is done safely and properly, such as the University of

Michigan and government research offices. The consent form also tells participants that we will publish the results of the study, but we tell them that we will not publish any information that would identify individual participants or family members.

3. Statistical Analyses and Methods

Our study is interested in how increasing the affordability to contraceptives affects outcomes. Let Y_{ij} be one outcome in domain, j , for individual, i . Examples of three domains of interest include contraceptive efficacy; unintended pregnancy and childbirth; economic self-sufficiency; financial security; and neighborhood quality. We normalize outcomes within a domain so that the sign of each outcome represents *more* of the outcome in the relevant domain.

3.1 Econometric Framework

We estimate both the reduced-form effects and the two-stage least squares estimates of receiving a voucher for contraceptives. The reduced-form equation is

$$(1) \quad Y_{ij} = \tau Voucher_i + \mathbf{X}'_i \boldsymbol{\beta}_1 + \gamma_c + \varepsilon_{1i},$$

where $Voucher_i$ is a binary variable equal to 1 if an individual i is selected to receive a voucher and 0 otherwise; \mathbf{X}_i is a set of exogenous covariates (defined in section 3.2); γ_c is a set of clinic fixed effects which will absorb between-clinic variation in physician recommendations, availability of appointments, and unobserved characteristics of patients; and ε_{1i} is the error term. The main coefficient of interest, τ , often called the “intention-to-treat” (ITT) estimate, captures the average difference in means in an outcome between the treatment group (individuals randomly selected to receive a voucher) and the control group (individuals not selected to receive a voucher). The ITT estimate answers the policy question: what is the net, causal effect of reducing out-of-pocket costs for contraceptives (capped at the cost of a generic IUD) to zero for women seeking reproductive health care on outcomes?

Another relevant policy question is: what is the causal effect of increasing the efficacy of contraceptives that women use? The answer to this question differs from the ITT estimate for several reasons. First, not all women offered a voucher will alter the efficacy of their contraceptive methods. Second, even if a woman switches to a more effective method initially, she may not remain on a more effective method for the duration of our study.⁷ In addition, some women who switch to more effective methods would have done so even without the voucher. Finally, women in our control group may switch to more effective contraceptives without receiving a voucher.

We, therefore, estimate the effect of increasing access to contraceptives within the following two-equation model, where the first-stage equation is

$$(2) \quad Contraceptive\ Efficacy_i = \pi_1 Voucher_i + \mathbf{X}'_i \boldsymbol{\pi}_2 + \gamma_c + \varepsilon_{2i},$$

and the second-stage equation is

$$(3) \quad Y_i = \delta_1 Contraceptive\ Efficacy_i + \mathbf{X}'_i \boldsymbol{\delta}_2 + \gamma_c + \varepsilon_{3i}.$$

Estimating this model using two-stage least squares (2SLS), the estimate of δ_1 is given by the ratio of the reduced form and first stage coefficients (τ / π_1).

In the absence of an experiment, we expect that contraceptive use and outcomes are correlated with unobservable factors, which render OLS estimates of δ_1 biased and inconsistent (we investigate this directly in section 7.4). Direct comparisons between women who use more effective methods and those who do not may capture a variety of differences between the groups. For instance, more career-interested women with higher expected wage growth and may desire fewer children and also be more likely to use more effective

⁷ One study found that around 7 percent of nulliparous women who selected IUDs had them removed (Brockmeyer, Kishen, & Webb, 2008).

contraceptives. Therefore, comparing the wages of women using more effective contraceptives with those of women using other methods may conflate differences in women's career investments with the effect of more reliable contraceptives.). The advantage of randomizing $Voucher_i$ breaks this endogeneity and provides a valid instrument for *Contraceptive Efficacy_i*.

The causal interpretation of the 2SLS estimate turns on two main identifying assumptions: financial barriers (i.e., out-of-pocket costs) are both (1) relevant to women's decisions about which contraceptive method to use and that (2) voucher assignment is exogenous and excludable. This study is premised on assumption (1) that financial barriers matter, which is born out of a variety of studies regarding the determinants of health care utilization (see Finkelstein et al. (2012) for an overview). Moreover, the randomization in the study ensures that the exogenous assignment of vouchers in (2) is met.

Excludability is more difficult to test and requires that receiving a voucher for contraceptives have an effect on outcomes *only* by increasing the efficacy of contraceptives. This assumption seems plausible as the voucher can only be used for contraceptives at PPMI. Moreover, women in both the treatment and control groups receive cash benefits for completing the screening and baseline surveys, implying that the effects of these cash benefits should be the same in the two groups.

One alternative channel could be that vouchers increase spending on other categories for women already intending to purchase an expensive contraceptive method on the day they enroll in M-CARES. For these women, the voucher would act as a cash transfer, allowing the women to spend money saved for contraceptives on something besides contraceptives in the short term (e.g., her credit card payment or rent). To examine the empirical importance of this channel, we ask women on the screening survey about the reason for their PPMI visit and which method they plan to get that day. We will also examine whether a woman's total debt (as measured on her credit reports) is reduced in the month she enrolls in the intervention for women who had already planned to get an expensive contraceptive. These analyses may suggest adjustments to the analysis if there is a quantitatively important violation of the exclusion restriction.

It is possible that receiving a voucher can have other effects on outcomes (e.g., a voucher can imbue a recipient with a positive or optimistic feeling), but it seems unlikely that this indirect effect would influence outcomes in multiple domains over the many years in the study.

Under these assumptions, we interpret the 2SLS estimate as the local average treatment effect, or LATE (Imbens & Angrist, 1994). The 2SLS estimate, δ_1 , identifies the causal effect of contraceptive efficacy among the women who shift the efficacy of their contraceptives after receiving a voucher and who would not have shifted their contraceptive efficacy without the voucher.

3.2 Covariates

Specifying exact definitions of covariates is difficult, because we do not know the distributions of these variables before we collect the data and, therefore, cannot know *ex ante* how best to define them. When we see the distributions of these variables, we may alter categorical, dummy, or continuous variables due to a paucity of individuals in certain categories or skewness if doing so is defensible and enhances what we learn from this study. Without this knowledge, this section outlines our best guess at what these covariates should be. Their inclusion is intended to increase precision by accounting for differences in characteristics between the treatment and control groups within the same clinic location that occur by chance. We describe how we plan to construct all variables in Appendix B.

Covariates, X_i in equations (1) through (3), will consist of two sets: Z_i , which includes demographic characteristics available from the pre-randomization screening survey and administrative data; and C_i , which includes binary variables for pre-randomization use of different types of contraceptives. Because these are pre-randomization outcomes, the probability of treatment is expected to be uncorrelated with these covariates. We will, however, examine the sensitivity of our results to the inclusion of both subsets of variables. Z_i , covariates include

- Age group dummy variables (age groups: 18-19, 20-22, 23-25, 26-29, 30-35)
- Race group dummies (race groups: White, African-American, other or mixed race)
- Fee-scale dummies (four groups previously defined)
- Education group dummies (education groups: less than high school, high school degree, some college, college degree or more)
- Number of previous births dummies (groups: 0, 1, 2, 3+ previous births)
- Married or cohabit with partner
- Time elapsed between the intervention and outcome measurement (linear measure and squared term).⁸

C_i , covariates include

- Use of no contraceptive in screening survey
- Use of birth control pills in screening survey
- Use of LARC in screening survey
- Use of condoms or withdrawal in screening survey
- Use of any other method in the screening survey.

3.3 Heterogeneity and Quantile Analyses

The ITT and LATE analyses implicitly assume that the treatment effect does not vary with individual's pre-randomization characteristics. We will explore treatment heterogeneity across pre-treatment characteristics by interacting $Voucher_i$ in either equation (1) or (2) with either binary or continuous covariates. This interaction specification is more powerful than stratifying by group, which seems appropriate given our smaller sample sizes. For some outcomes, we will also estimate quantile treatment effects, because we are interested in the impact of contraceptive efficacy on certain parts of the outcome distribution. These quantile treatment effects describe the treatment-induced differences in the treated and control distributions (rather than the treatment effects for any individual), which is relevant for understanding how increasing contraceptive efficacy may affect the distribution of individuals with large amounts of debt or lower incomes. We define these analyses in more detail in the descriptions of specific analyses below.

3.4 Multiple Outcomes

Many aspects of women's lives may be affected with financial access to more effective contraceptives. Following the analyses of Kling, Liebman, and Katz (2007), we plan to study many potential outcomes in eight domains: (1) contraceptive efficacy, (2) unintended pregnancy and childbearing, (3) economic self-sufficiency, (4) financial security, (5) neighborhood quality, (6) physical health and ability, (7) mental health and well-being, and (8) relationship quality. For the year 1 analyses, we will examine outcomes in the following five domains as standardized indices:⁹

- (1). **Contraceptive efficacy**: total contraceptive expenditures at PPMI, any contraceptive use, temporal coverage of contraceptive method (e.g., 1 day, 3 months, 6 months, 12 months), use of a high efficacy method, a continuous measure of method efficacy.

⁸ Timing is important because some women will enroll in the study toward the end of the 12-months of recruitment, whereas others will enroll at the beginning. Therefore, women's time in the study may vary by up to one year, which may explain some of the variation in measured outcomes. In balance tables, we will include instead the day that an individual signed up.

⁹ Following Kling et al. (2007), we standardize the ITT effects, τ , or LATE, δ_1 , for each outcome from equations (1) and (3) using the mean and standard deviation for the relevant outcome in the control group. In addition, we sign the outcomes within each domain so that increases indicate movement in a common direction. For instance, within the domain of neighborhood quality, an increase in the index would always imply an improvement in that domain.

- (2). Unintended pregnancy and childbearing: number of pregnancies, number of pregnancy tests, number of abortions, number of births, and frequency of use of emergency contraception.
- (3). Economic self-sufficiency: wage earnings; enrollment in college or education; employed (any labor income); not incarcerated; income-to-poverty ratio; not single-head of household; not living with parent; reverse coded (-1*) receipt of public dollars (from programs such as TANF, SNAP, Medicaid, EITC, and other programs).
- (4). Financial security: reverse coded (-1*) bills sent to collection; reverse coded (-1*) amount owed to collections; reverse coded (-1*) any delinquency where a payment is at least 30 days overdue; reverse coded (-1*) any delinquency where a payment is at least 120 days overdue; total debt.
- (5). Neighborhood quality: income-to-poverty ratio in census tract of residence; reverse coded (-1*) teen pregnancy in tract; reverse coded (-1*) share of single-headship in census tract; reverse coded (-1*) share of households receiving public assistance in tract; reverse coded (-1*) share of poor children in tract; share of home ownership in census tract of residence; median house price in census tract of residence; and reverse coded (-1)*number of address changes since enrollment.

Grouping outcomes allows us to examine tests whether there is an *overall* effect of contraceptive efficacy within a single domain, and it also limits the number of statistical tests. However, a shortcoming of this approach is that indices implicitly weight index components equally. Large changes in any one dimension might be averaged together with potentially much smaller or zero effects in other dimensions, implying that the index masks large effects. For this reason, we also report individual outcomes separately in the main analysis, so that individual outcomes of interest can be examined separately. For individual outcomes, we will report multiple-inference adjusted p-values within a given domain based on resampling method of Westfall and Young (1993) with 10,000 iterations.

3.5 Attrition and non-response, price indices, standard error adjustments, and weighting

We expect some attrition in self-reported data. Earlier RCTs involving contraceptive use found attrition of 9 to 13 percent over the course of 12 months (Burke et al., 2010; Harper et al., 2015; Raine et al., 2011). There should be no direct attrition in administrative data—only a failure to link an individual due to an invalid social security number or other incorrect information.

We will investigate whether individual characteristics and voucher receipt are correlated with representation in each sample. We will implement this by estimating a linear regression model using as the dependent variable a variable equal to 1 if the woman was responded to a survey or was linked to an administrative data source. To the extent that attrition or survey non-response is non-random, we will take steps to address issues of non-representativeness using standard propensity-reweighting procedures (DiNardo, Fortin, & Lemieux, 1996; Heckman, Ichimura, Smith, & Todd, 1998). In addition, once we obtain data on selection into study participation (see section 4.1 below), we will examine whether additional reweighting is required so that the characteristics of our participants appear more similar to the national population. These comparisons are presented in Appendix C Table C2.

We will express all monetary variables to common dollars using the Consumer Price Index for Urban Wage Earners and Clerical Workers (CPI-W).

We will estimate heteroskedasticity-robust Huber-White standard errors for all analyses (Huber, 1967; White, 1980). In models that consider the evolution of outcomes across time, we will additionally cluster standard errors at the level of an individual participant.

4. Selection into M-CARES and the First Stage

This section lays out our plan to examine the characteristics of the PPMI population, the PPMI sub-group that takes our screening survey, the PPMI sub-group that elects to participate in our study, and the characteristics of the first stage. This section outlines each of these analyses.

4.1 External validity and enrollment reports

PPMI has agreed to provide M-CARES with aggregated information on patients who come to the recruitment clinics during the recruitment period as well as detailed, individual information for women who elect to participate in the M-CARE study. To understand the external validity of our study, we examine how M-CARES participants compare to (1) the PPMI population, (2) the PPMI sub-group who agrees to take the screening survey, (3) two national samples of women: the NSFG 2013-15 respondents and female respondents from ACS 2015, and (4) the same ACS sample for the state of Michigan. The variables examined across all samples include those outlined in section 3.2. For the M-CARES, PPMI, and the NSFG samples, we also include variables capturing the use of contraceptives, including birth control pills, LARCS, condoms, withdrawal, no method, and other methods, but these are not available in the ACS. These comparisons are presented in Appendix C Table C1.

4.2 Verification of randomization (balance tests)

As described previously, assignment of a voucher is randomly assigned by a computer and given to individual respondents. This prevents surveyors from undoing the randomization and respondents from trading or giving away vouchers. It is possible, however, that the balance of characteristics fails by chance. As is standard in experimental research, we examine randomization by comparing treatment and control differences in pre-randomization characteristics. To do this, we regress a binary dependent variable equal to 1 if an individual was assigned a voucher on the covariates,

$$(4) \quad \text{Voucher}_i = \mathbf{X}'_i \boldsymbol{\rho} + \varepsilon_{4i},$$

where \mathbf{X}_i is described in section 3.2. Additionally, we use Huber-White standard errors to account for the fact that errors of a linear probability model are heteroskedastic (Huber, 1967; White, 1980). We will also test whether clinic fixed effects explain voucher assignment. If so, we will examine the partial, joint correlation of the \mathbf{X}_i net of these clinic-level differences.

A summary test of covariate balance is a heteroskedasticity-robust Wald test of joint significance of the covariates. Under the null hypothesis that vouchers were randomly assigned, the covariates should not jointly predict the assignment of a voucher and the p-value of the test statistic should be outside the range of conventional statistical significance. The main advantage of this test over more common balance tests for means is that it accounts for the correlations among covariates and the *joint relationship* of the group of covariates with the likelihood of receiving a voucher, aggregating all information in the relevant covariates into a single test statistic. As such, this is a more powerful test than more standard t-tests of differences in the means of individual characteristics. Because it may be easier to reject the null hypothesis of random assignment (and this should only occur by chance), it is important to consider the scientific significance of any resulting imbalance in characteristics (McCloskey, 2005).

A feature of our regression-based test is that it also describes the potential scientific importance of non-representativeness: the magnitudes of the regression coefficients conveniently quantify which characteristics are more or less likely to result in a linked observation after controlling for other record characteristics. Appendix C Table C3A presents an example table which we will populate for each of our linked (survey and administrative) data sources described in section 2.2. If we use samples that combine administrative data creating new samples, we will also examine whether covariates jointly predict receiving a voucher and being in this sample.

As a complement to these findings, we will also present standard mean comparisons for the same set of covariates. An example of this table appears in Appendix C Table C3B. It includes the means for the control group, and the mean differences in characteristics, or ρ from (4), the standard errors of the estimated coefficient, and the inverse propensity-score reweighted estimates if applicable. We will make control/treatment comparisons for each of our linked (survey and administrative) data sources described in section 2.2 and, if possible, augment these tables with lagged outcome variables of interest.

4.3 First Stage

Our first stage analysis will examine the relationship between receiving a voucher and contraceptive efficacy represented in equation (2). The simplest framework for thinking about how a voucher might matter comes from Michael and Willis (1976). In their model, the number of children is a random variable, and couples choose a contraceptive strategy to reduce the monthly probability of conception. In addition, contraceptive strategies have a price. Couples optimize by choosing an *ex ante* distribution of pregnancies with the mean, μ^* , to maximize utility net of the costs of the contraceptive strategy, $\max U(\mu) - C(\mu)$.

The framework of Michael and Willis provides testable predictions regarding how different contraceptive methods might alter the number of pregnancies. Michael and Willis consider a simple division of costs of attaining a pregnancy distribution, μ , using contraceptive strategy, j , into a fixed cost, α_j , and a marginal cost, β_j . These fixed and marginal costs might represent monetary costs, time costs, or psychic costs and may be due to the use of methods *or* adoption of different behaviors. The cost of using strategy j to attain an *ex ante* pregnancy distribution, μ , is given by $c_j = \alpha_j + \beta_j (\mu_N - \mu)$, where μ_N indexes the expected distribution of pregnancies in the absence of any contraceptive strategy (including abstinence). The term $\mu_N - \mu$ is, therefore, the expected number of pregnancies averted. The (constant) marginal cost of averting a pregnancy, β_j , might be a behavioral cost (abstinence or withdrawal), the inconvenience or discomfort of birth control use (barrier methods), or the necessity of purchasing supplies (as with condoms or the birth control pill). Fixed costs include the up-front, out-of-pocket costs of getting a new method; the price and time costs of going to the doctor; and potentially the psychic and time costs of learning about the method and adopting different behaviors (e.g., scheduling an appointment every three months to get a Depo shot). The implications of this model for our analysis is that the fixed costs of contraceptives reflect a range of things—not just the out-of-pocket costs for selecting the method.

Importantly for our analysis, high efficacy methods (or methods with low marginal costs of preventing pregnancies) tend to have high fixed costs. For instance, the up-front out-of-pocket costs of getting an IUD at PPMI without the sliding scale is \$492, including insertion and a pregnancy test. The IUD, however, has a low marginal cost of preventing pregnancy, as no action or transaction with a partner is required at the time of intimacy.

The total costs of a contraceptive strategy for preventing the desired number of pregnancies determines contraceptive use, the endogenous variable in equation (3). The random assignment of vouchers is intended to reduce the fixed cost, α_j , of highly effective (and low marginal cost) contraceptive methods. Because the fixed costs (especially in some cases the knowledge about methods and the psychic discomfort of getting some of them) will not fall to zero, we do not expect every treated participant to adopt more effective methods.

The main conceptual issues for our study relate to how one might measure the efficacy of a contraceptive strategy. This requires both a time dimension as well as a definition of method efficiency. In addition, the efficacy of contraceptives after accounting for non-adherence and behavioral factors is not easy to measure. To the extent we measure contraceptive efficacy poorly, this will have important effects on inferences. Because is little theoretical guidance as to a single “correct” measure, we use a variety of complementary measures of contraceptive efficacy. This way, readers may rescale the reduced-form estimates with their preferred metric.

Our baseline estimate is whether a woman used a high or moderate efficacy (tier 1 or tier 2) method of contraception within the first 100 days of enrollment in M-CARES. In addition, we examine whether she ever used a high or moderate efficacy method of contraception at the end of the first year after enrollment. We will also consider as a dependent variable any contraceptive use, high efficacy method (tier 1), the temporal coverage of contraceptive method (this could be 1 day or up to 3 years), whether the woman switched contraceptive method within 100 days, and a continuous measure of method efficacy. Finally, we

will present a standardized index of contraceptive efficacy as defined in section 3.4. Appendix C Table C4 presents an example table.

5. Primary Analyses: Contraceptive Efficacy, Pregnancy, and Childbirth

In the first year, we will measure outcomes to understand how vouchers for contraception affect women's choices about contraceptive method, pregnancy, and childbearing outcomes. This section lays out our primary analyses for the unintended pregnancy and childbirth domain of outcomes.

Appendix Table C Table C5 lays out a table illustrating how we will present our results. The most left hand column describes the outcome of analysis. The control mean is reported in column 1. Columns 2 and 3 report the reduced-form estimate (equation 1) and the 2SLS estimate (equation 3). For individual outcomes we report both the unadjusted and the multiple-test corrected p-value within the domain. Given the complementarity of survey and administrative data, we report outcomes separately for these data sources when measured in both. In the first row, we report the results for the index for the entire domain.

5.1.1 Hypotheses

Vouchers reduce the fixed, out-of-pocket costs for using highly effective contraceptives. We, therefore, hypothesize that:

- (H1) Vouchers will increase the utilization of higher efficacy contraceptives.
- (H2) Vouchers will reduce the number of pregnancies and abortions in the first year.
- (H3) Vouchers will reduce the number of children born in the first year, but by less than they reduce pregnancies (because many unintended pregnancies are aborted). The longer term effects are more ambiguous.

Note that H2 and H3 are *not* clearly anticipated by theory. If abortions completely offset unintended pregnancies, then the number of pregnancies and abortions could fall while the number of births remain unchanged. In addition, theoretical work suggests that more reliable contraception could increase *intended* pregnancies and childbearing in the short-term (Michael & Willis, 1976). Our hypotheses about pregnancy, abortion, and childbearing, however, reflect the fact that empirical work tends to show that pregnancies, abortions, and childbearing fall in the short-term.

5.1.2 Contraceptive Efficacy

Our first analysis considers how vouchers effect contraceptive efficacy. As discussed in section 4.3, we use a variety of complementary measures for this concept. We present these results as the first stage analyses in Appendix C Table C4. In year 1, measures of contraceptive efficacy will be examined using screening data, baseline survey data, and PPMI administrative data measured up to roughly 1 year after enrollment.

5.1.3 Pregnancy, Abortion, and Childbirth

We then examine the impact of contraceptive efficacy on the outcome domain, "Unintended pregnancy and childbearing." The variables used as part of this domain are number of pregnancies, number of births, number of abortions, and frequency of use of emergency contraception. In year 1, measures of unintended pregnancy and childbearing will be examined as close to one year after enrollment as possible in the PPMI data and at exactly one year in other administrative sources. These estimates are reported in Appendix C Table C5.

6. Supplementary Analyses: Economic Self-Sufficiency, Financial Security, and Neighborhood Quality

We will examine measures of economic self-sufficiency, financial security, and neighborhood quality after the first year. This section lays out these supplementary analyses and uses the same estimating strategy and table format as indicated in section 5.1.3.

6.1.1 Supplementary Hypotheses

If vouchers reduce the fixed, out-of-pocket costs for using highly effective contraceptives, and increased use of highly effective contraceptives reduces pregnancies and unintended childbearing, we expect positive *direct* effects in the domains of economic self-sufficiency, financial security, and neighborhood quality. By direct effects, we mean benefits that accrue directly to women by avoiding an unplanned birth (e.g., more time spent working or in school, lower likelihood of financial hardship, and potentially more control of one's living situation).

We also anticipate *indirect* effects to occur through shifts in women's expectations about future childbearing. For instance, if women cannot afford to use (or continue to use) highly reliable contraceptives, many will rationally expect to experience an unintended pregnancy in the near future. This expectation—*even in the absence of an actual unintended pregnancy or birth*—may lower women's *current* career investments. If a voucher allows women to switch to highly reliable contraceptives such as an implant or an IUD, they should rationally expect to have no unintended pregnancies in the near future. Thus, vouchers should raise *current* career investments, by raising the expected returns to these investments.

These expected effects lead us to the following supplementary hypotheses:

- (H4) Vouchers will increase economic self-sufficiency. They will
 - a. increase career investment, including educational enrollment and completion;
 - b. increase wage earnings, through increases in employment, weeks and hours worked, and returns to investments in careers (positive effects may be offset by reductions in work intensity to invest one's career, H4a);
 - c. reduce the likelihood of being a single head of household or living with one's parent;
 - d. reduce crime, arrests, and incarceration;
 - e. reduce receipt of public dollars for programs such as TANF, SNAP, Medicaid, EITC, as well as other programs.
- (H5) Vouchers will increase financial security. They will
 - a. reduce the likelihood of having any bills sent to collection
 - b. reduce the amount owed to collections;
 - c. reduce any delinquency where a payment is at least 30 days overdue
 - d. reduce any delinquency where a payment is at least 120 days overdue
 - e. reduce the total amount of debt.
- (H6) Vouchers will increase neighborhood quality by increasing women's economic self-sufficiency and financial security, making it possible for them to move to areas with better average socio-economic characteristics of the tract of residence.

Because the effects of effective contraception are cumulative, we do not anticipate large measured effects on these outcomes in year 1. Any effects on self-sufficiency, financial security, and neighborhood quality will likely be small and may not statistically significant in the first year.

6.1.2 Economic Self-Sufficiency, Financial Security, and Neighborhood Quality

As described in section 5.1.3, we will examine how vouchers affect outcomes in each domain using both a reduced-form and 2SLS analysis. Self-sufficiency outcomes and financial security will be examined for the first tax year after enrollment. Example tables are presented as Appendix C Table C6 and C7, respectively.

Neighborhood quality will be examined for the residence reported in the tax data as of April 2020, and an example table is presented as Appendix C Table C8.

7. Supplementary Analyses: Sensitivity, Mechanisms and Heterogeneity

7.1.1 Sensitivity Analyses

The main analysis will include all covariates in X (see section 3.2). We do not expect inclusion of covariates to affect the results beyond contributing to precision. We will analyze this systematically by recreating Appendix C Table C4-8 without covariates and with the Z covariates only. We will also examine their robustness to excluding clinic fixed effects. (Tables will look exactly like Appendix C Table C4-8, so example tables are omitted from Appendix C for brevity).

7.1.2 Plans to Use Vouchers

In order for vouchers to affect a participant's behavior in a meaningful way, they need to be used. Use is documented in the first stage. If implementation is successful, we expect that receiving a voucher is strongly and positively correlated with total expenditures at PPMI for contraceptives (including any voucher dollars paid to PPMI) and negatively correlated with measures of out-of-pocket payments at PPMI. However, there are many reasons why vouchers may not have been used, and we examine those reasons using responses to the baseline survey. We will present basic summary statistics for these main variables as shown in Appendix C Table C10. We will also supplement this analysis by using linear regressions to examine the partial correlations of covariates in X model with these outcomes. The results will help us understand the reasons for voucher use and non-use.

7.1.3 Heterogeneity by Baseline Characteristics

Understanding how the impact of vouchers varies across subgroups could allow subsidies for contraception to be targeted more effectively. In some cases, we do not have strong hypotheses about which groups may benefit more. For instance, it is unclear whether the vouchers may have larger or smaller effects on outcomes of older or younger women, native-born or foreign-born women, women of different racial groups, women with different levels of education or income, or women with different numbers of pre-randomization births.

But in other cases, we have stronger prior beliefs about how the vouchers could matter. For example, because women already using highly reliable contraceptive methods before the intervention had, by revealed preference, shown their ability to find the resources to pay for these methods, the voucher may not matter as much as it would for women using less effective (and with lower up-front costs) methods. Similarly, vouchers may have been most beneficial for women who indicated in the screening survey that they had delayed reproductive health care in the last year because they could not afford it or for whom reliable transportation to get contraception had been a barrier. (This could be the case if a voucher allows women to get a high out-of-pocket cost method like an implant or IUD rather than a method like Depo-Provera, which requires more frequent returns to PPMI.)

We will explore heterogeneity in the effects of voucher across many covariates defined in section 3.2 we well as in responses on the baseline survey. We will obtain these estimates by interacting $Voucher_i$ with a binary variable for a particular category; a set of dummies for a category (for pay scale and delay in birth control use); or a continuous variable. We will also present the number of non-missing observations for each variable (column 1), the first stage (column 2), as well as the four main second-stage outcome indices (columns 3-6). An example table is presented as Appendix C Table C11.

Appendix C Table C12 presents heterogeneity estimates for attitudes about contraception (as well as a contraceptive attitudes index that standardizes across all of the individual outcomes within the domain). In general, we hypothesize that women with more negative attitudes about contraception or more religious

women to be less responsive to the intervention. We have no overall hypothesis about the impact of relationship quality, but our hypotheses about one component are informed by the previous literature. Intimate partner violence is correlated with contraceptive coercion and unintended pregnancy (Miller et al., 2010), we hypothesize that voucher receipt and LARC use may have especially large impacts for women in coercive relationships.

7.2 Heterogeneity by Policy Period

The policy environment surrounding federal and state funding for reproductive health may change during our recruitment period. It is difficult to specify in advance how we might model this change, given that we do not know what the relevant parameters are. We can, however, indicate that if this happens, we will examine whether the ITT effects and LATE we estimate vary across the relevant policy periods. For instance, if Title X funding for Planned Parenthood is eliminated effective July 1, 2018, and PPMI will no longer be able to make contraceptives available according to the fee-scale in Table 2, we will estimate an equation that interacts $Voucher_i$ with a dummy variable equal to 1 for the date the new funding model became effective.

7.3 Extensive versus intensive margins

The focus of the primary analyses on continuous measures of pregnancy and childbearing do not allow us to understand differences in responses on the extensive and intensive margins (e.g. reduction in the number of unintended pregnancies vs. reduction in the likelihood of having an unintended pregnancy). This is an important difference to characterize because the impact of the *first* unintended birth may be substantially more damaging in terms of career trajectory and reduced future expectations, compared to the second unintended birth. In addition, there may be less measurement error on the extensive margin compared to the intensive margin (e.g. any emergency contraceptive use compared to the frequency of emergency contraceptive use). Therefore, we may have power to detect a response on the extensive margin, even if we do not have power to detect a response on the intensive margin. We will use PPMI patient records to conduct a more extensive analysis of measures of (1) any unintended pregnancy: any pregnancy test, any abortion, any emergency contraception use;¹⁰ (2) measures of the intensive margin effects on unintended pregnancy: number of pregnancy tests if >0 , number of abortions if >0 , and frequency of use of emergency contraception if >0 , all defined only for participants with positive values of the dependent variable. Appendix C Table C13 presents an example table.

7.4 Observational Estimates of Contraceptive Efficacy

We will compare the results using our randomly assigned voucher to results estimating equation (3) by OLS. Appendix C Table C14 presents an example table.

7.5 Moral hazard

One potential unintended consequence of increasing access to high-efficacy contraceptives is that it may increase the incidence of STDs. For example, an IUD reduces the expected costs of having unprotected sex and could, therefore, reduce the cost of having sex without condoms. We will examine the extent of moral hazard as a result of the intervention by studying whether voucher receipt is correlated with measures of STD incidence, using PPMI patient records. PPMI records allow us to measure incidence of HIV, gonorrhea, chlamydia, syphilis, herpes, and HPV. As with measures of pregnancy constructed from PPMI data, if patients get tested at health centers or facilities other than Planned Parenthood, we will not be able to capture these instances in our data. Therefore, our results may understate the impact of voucher receipt on STD/STI incidence. Appendix C Table C15 presents an example table.

¹⁰ As we are analyze outcomes in year 1, we do not expect a difference between the number of births and any births during this short time period, therefore we do not examine the extensive margin for childbearing in year 1. However, we will in subsequent analyses for years 2-5.

8. Analyses Planned for Later Years

Once we have concrete estimates for our first stage and primary outcomes in section 5, we will be able to develop the best plan for how to design subsequent surveys (whether any tweaks to our baseline survey is needed) and whether these analyses present questions requiring the addition of new variables. Our intention is to register this second pre-analysis plan by July 1, 2020, which is early enough so as to eliminate the possibility of examining any 2 year outcomes for any participants before the plan is posted.¹¹

9. Contribution and External Validity

M-CARES is the first experimental study to quantify the effects of increasing the affordability of contraceptives on a wide range of outcomes for women and their families. M-CARES will recruit 5,000 women ages 18 to 35 years old who have no insurance and are above the federal poverty line—all of whom are seeking care at PPMI. After the first year of the study, a rich combination of survey data and administrative data allows us to estimate the short-run causal effects of subsidizing highly effective contraceptive methods for U.S. women.

While providing credible internally valid estimates, important limitations to M-CARES external validity require care in interpreting its results. First, M-CARES results are specific to the population it studies: women who are actively seeking reproductive care and go to Planned Parenthood clinics. This population of women potentially excludes (1) insured women who seek reproductive care at places other than Planned Parenthood, (2) women who have little interest in using contraceptives and, therefore, do not seek care, and (3) uninsured women who may be dissuaded from seeking better contraceptive methods by the expectation of high out of pocket costs.

The exclusion of the first two groups does not bear critically on the central research question of interest: how can increasing the affordability of reliable contraception increase use? This is because the decisions of the first and second groups are not affected by the cost of reliable contraception. However, understanding the population-level effects of any policy similar to M-CARES vouchers should adjust for the relevant population accordingly.

In contrast, we expect that providing vouchers as a national policy could have important effects on the contraceptive use of low-income women in group (3). This implies that increasing the affordability of contraceptives could affect more people than respond in this study, however the marginal effects of the policy for this group are not recovered by this study. These marginal effects will be informed by our heterogeneity analyses.

Our results are also specific to reproductive care and economic setting of in Michigan. As we show in Table 1, Michigan is fairly representative of U.S. women of childbearing age in terms of educational attainment, wage income, number of children, and marriage rates. However, Michigan also tends to have higher rates of unplanned pregnancy. 44 percent of pregnancies in Michigan were unplanned in 2010, which is one of the highest numbers in the nation outside of the South (Sonfield & Kost, 2015).¹² Michigan's public support for family planning is also less generous than *many* other states.¹³ However, Planned Parenthood's sliding scale is in all other U.S. states, making services available on the sliding scale (and typically free to all women below 100 percent of the federal poverty line, although this varies by state).

The extent to which we can generalize M-CARES results to the U.S. population of women of reproductive age depends on the sizes of these groups relative to the population represented by the study participants. Our analysis will consider these comparisons carefully, as well as study heterogeneity in treatment effects

¹¹ Note that this is because administrative databases are updated with lags, so 2019 education, tax, vital statistics, and program participation data should not be available until after the calendar year of 2019 ends.

¹² Notably, all but three states (Mississippi, Louisiana, and Georgia) have rates of under 50 percent (Sonfield & Kost, 2015).

¹³ Michigan is less generous than 31 other states and more generous than nine other states. In some states, Medicaid or other state programs fund family planning services for women between 100% of the poverty line and higher amounts.

that will inform out-of-sample extrapolations. The extent to which we can generalize M-CARES results to the U.S. population of women of reproductive age depends on the sizes of these groups relative to the population represented by the study participants. Our analysis will consider these comparisons carefully, as well as study heterogeneity in treatment effects that will inform out-of-sample extrapolations.

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Appendix A. Data Sources

A central contribution of our analysis is using both survey data and administrative data to provide a rich perspective on the evolution of respondents' lives. This appendix describes the data sources used in this study, both for the analyses in year 1 as well as records that we plan to incorporate in future years. Table 1 provides an overview of these sources and the text provides more detail about each source. This section is a snapshot of data sources that we currently intend to use; future editions of this pre-analysis plan will add new data sources to this appendix as needed.

Table 1. Summary of Survey and Administrative Data Sources

	Data	Outcomes
Survey Data	Screeners survey	Marital status, living arrangements, educational attainment, contraceptive use, childbearing, PPMI sliding fee scale.
	Baseline and follow-up surveys	Contraceptive method, employment status, occupation, income category, educational attainment and enrollment, childbearing and pregnancy history, healthcare use, pregnancy intentions, attitudes towards contraception and childbearing, expectations about the future, childhood background, relationship quality, mental health and well-being, physical health.
Administrative Data	PPMI patient records	Physical health information, contraceptive use, childbearing and pregnancy history, abortions, medical diagnoses, insurance and payment information for reproductive care, M-CARES voucher use, STD/STI incidence
	Credit reports	Measures of indebtedness and financial strain, delinquency, and credit score
	Tax data (OTA, RDC)	Number of dependents in the household, marital status, homeownership, college enrollment, income and sources, number of employers, receipt/eligibility of Earned Income Tax Credit, eligibility for other public assistance programs, address.
	Birth certificates	Date of birth; marital status at birth; mother education and occupation; father name, education, occupation, SSN, and DOB if acknowledged; pre-natal care; gestational length; birth weight; parity of birth; Medicaid coverage for birth.
	Census, ACS, CPS	Living circumstances, number of children in the household (and when they were born), renter/owner status, incarceration status, neighborhood quality.
	Education data	Education enrollment, educational attainment, achievement test scores, absenteeism, school delinquency.
	Public program participation	Medicaid receipt, SNAP receipt, TANF receipt, Unemployment Insurance, Disability receipt.
	Michigan criminal justice records	Arrests, prison entries, incarceration status.

1. Screening survey

We use the screening survey for two primary objectives: to screen participants on eligibility and to collect pre-intervention data on participant's characteristics. It has 29 questions excluding questions relating to enrollment and consent. Respondents receive \$10 in cash for completing it (they are not allowed to skip any questions), and we estimate that it will take about 5 minutes to complete (see Appendix D for the survey). The screening survey is self-administered prior to enrollment and collects basic demographic characteristics of respondents, income category (PPMI fee scale), age, marital status, living arrangements and cohabitation, educational attainment, contraceptive use, and the number of children. We will have this information for all 5,000 M-CARES participants, and will use it to create enrollment reports, study selection into the M-CARES, and conduct balance tests of covariates between treatment and control groups (see details in section 4.2).

2. Baseline and follow-up surveys

The baseline survey is self-administered either on a tablet at the clinic after the PPMI appointment or in another location using a device with access to the internet. Follow up surveys will be collected 2 and 4 years after enrollment. Surveys collect information such as religion, employment status, income category, educational enrollment, fertility history, healthcare use, pregnancy intentions, attitudes towards contraception, expectations about the future, relationship quality, mental health, physical health, and childhood background (see Appendix D for the survey). In addition, respondents in the treatment arm are asked about voucher use and change in contraceptive use. The baseline survey has 118 questions in total (4 questions verify information collected in the screening survey), as well as skip patterns. We estimate the survey should take 25 minutes to complete. Respondents will receive \$60 in cash if they complete the survey at PPMI the day they enroll or \$40 if they complete it at a later point. We anticipate a response rate of 80 percent to the baseline survey, owing to the large incentives and the ability to allow individuals to take the baseline on site.¹⁴ M-CARES participants will also be asked to complete 2 follow-up surveys, 2 and 4 years after enrollment. Respondents will receive \$50 for each completed survey. The follow-up surveys are not yet designed, but will contain questions which will largely overlap with the questions in the baseline survey, allowing us to measure the relationship between voucher receipt and changes in measured outcomes. Follow up surveys will also ask respondents about pregnancies, pregnancy intentions, and abortions—important variables that may not be available or complete in administrative data.

3. PPMI patient records

We will provide PPMI with full name, date of birth, address, and SSN for all study participants, and PPMI will use this information to locate participants' patient records. These records contain detailed information on participants' socio-demographic information, physical health information, pregnancy and childbearing history, medical history, their PPMI visits (at all PPMI clinics), including the date of the visit, details on diagnoses and procedures and services provided, and payment method and payment amount. The method of payment for the services on the records allows us to identify the services obtained with the M-CARES voucher. We rely on these data in part to estimate how pregnancies, abortions, childbearing, and contraceptive use is affected by voucher receipt. We expect to link all participants to their PPMI records (going back to the date of participant's first PPMI visit and up to 2023, the end of the

¹⁴ For example, Panel Study of Income Dynamics paid respondents \$65 in 2009 for a 75-minute interview, with a response rate greater than 95 percent (Schoeni et al., 2013). It should be noted that PSID is a longitudinal survey, and at least partially the high response rate must stem from the long-term relationship with respondents.

study). The date of participant's enrollment from the screening survey allows us to separate patient history data into pre- and post-intervention periods.

4. Credit reports

We will use either Transunion and/or Equifax for credit report data. We will send Equifax and Transunion study participants' names, social security numbers (SSNs), and addresses per their requirements. Equifax and Transunion will link the data, remove identifying information from the dataset (all name, SSN, address) and send Michigan a de-identified file. (This process is consistent with the Fair Credit Reporting Act).

5. Tax records

We have received approval from both the Census Bureau and the Office of Tax Analysis (OTA) to link our study participants to the universe of all tax filers from 1996 to the present (end date will be updated as time moves forward). We are not yet sure which access route we will use, so describe the process of linking to and disclosing results from both sources here.

Tax data allow us to characterize tax filing participants, before and after the intervention, in terms of (1) living circumstances (living with parents, single headship, living with married or unmarried partner, etc.), (2) the number of children in household (and when they were born and age at first birth), (3) homeownership, and (4) neighborhood quality (an important metric for standard of living). In addition, tax data allow us to assess (5) college enrollment (via tax credits for these expenditures), (6) exact income from wage earnings in the household, (7) receipt/eligibility of the Earned Income Tax Credit, and (8) eligibility for other public assistance programs.

Every M-CARES participant who files taxes can be linked to tax data using a protected identification keys (PIK). To link to Census IRS 1040s, we will provide Census with the full name, address, and SSN of the study participants and their families, which will enable linking to PIKs. Census will then provide access to M-CARES team to these data in the University of Michigan Research Data Center (RDC). OTA will also use PIKs, but OTA will not provide the data to us. Instead, M-CARES team member will conduct analyses with the data. OTA will analyze these data and review them for confidentiality before disclosing to the study team. For OTA data, M-CARES team will not have access to any individual's information. It will only review descriptive statistics and regression output of these data released by OTA. We expect to link almost every study participant to their tax records.

6. Census, American Community Survey (ACS), Current Population Survey (CPS) Annual Social and Economic Supplement (ASEC)

The 2000, 2010, 2020 (expected), and 2030 (expected) Censuses contain the data compiled from the questions asked of all people in every housing unit in the U.S. This includes a detailed enumeration of everyone in the U.S. population by sex, age, race or Hispanic or Latino origin. In addition, variables indicating relationship to household head and marital status allow us to characterize all children living in the household and sub-family.

Every study participant will be linked to census data using a personal identification key (PIK). Available census variables allow us to characterize *every* person in the study, before and after the intervention, in terms of the following characteristics: (1) living circumstances (living with parents, single headship, living with married or unmarried partner, etc.), (2) the number of children in household (and when they were born and age at first birth), (3) renter/owner status, (4) incarceration status, and (5) neighborhood quality (an important metric for standard of living). Additionally, we can identify these outcomes for race/ethnicity subgroups.

Census data are available in the Research Data Centers (RDCs), one of which is housed at the University of Michigan. The Census Bureau has established a specific application and approval process and has specific disclosure protocols to protect the identity of respondents. We have been able to obtain these data

to link to our study participants via a standard application process. In addition, we will need to consent all study participants to link them to Census as part of the enrollment process.

ACS and CPS ASEC data will contain information for a random sample of M-CARES participants. If the sample overlap is large enough, we will use these records as a supplement to the Census. These surveys allows us to characterize participants in a similar way as the Census, but on a more frequent or updated basis.

7. Education records

We will use two types of administrative sources for education data, the National Student Clearinghouse (NSC) and Michigan education data (K-college).

The National Student Clearinghouse (NSC) was founded in 1993. Originally, this data source was tied to the student loan industry and gathered enrollment data from participating colleges. The purpose of the database was to allow the loan industry to confirm that a borrower was enrolled and therefore eligible to defer repayment of student loans. Consistent with this history, the NSC today tracks enrollment (but not credits or major) and whether a student has graduated and degree earned. As of 2012, the NSC started using the Classification of Instructional Programs to record a student's major (<http://nces.ed.gov/ipeds/cipcode/>).

The main strengths of these data are that it is possible to trace K-12 students through their college careers. There are also some notable limitations as described in Dynarski et al. (2013). First, not every college reports to the NSC because reporting is voluntary. This problem was more pervasive in the 1990s and 2000s but has improved more recently. For example, in 2011 93 percent of post-secondary enrollment was documented in the NSC (Dynarski et al. 2013, p. 9); these rates were higher outside the South and the highest in Virginia and Wyoming at 97.4 percent and 99.6 percent coverage, respectively. This means that college attendance in our study period will be captured for the vast majority of the participants. Second, there is missing information on degree type. Dynarski et al. (2013, p. 15) report that in Michigan, which is a focus of our study, the NSC data record only 81 percent of all degrees earned conditional on enrollment in an NSC-participating institution. However, degree coverage is the highest at public colleges at 82 percent, where our study participants are the most likely to be enrolled if enrolled at all. Third, the NSC cannot disclose student information that students or schools elect to block under Family Educational Rights and Privacy Act (FERPA). The share of student information that is blocked to researchers is not observed, but a NSC publication documents that it is highest at 2-year public colleges. Finally, Dynarski et al. (2013) report that the NSC linking algorithm makes some matching errors. Therefore, our study participants' outcomes may be measured with some error. After accounting for these issues, Dynarski et al. (2013, p.17) estimate that the comprehensive coverage rate in the NSC data is around 86 percent in 2011.

As with Census data, study participants will be linked to the NSC using a unique ID number. Linked individuals would be those enrolled in post-secondary institutions that agreed to participate in the NSC. The NSC provides information on enrollment, the beginning and ending date that a student is enrolled during each term, whether a student is enrolled full or part-time, whether a student has earned a degree, and the date the degree is earned. For the subset of students participating in the "DegreeVerify" service, we will be able to also obtain college major and degree type (e.g., BA). We should be able to link the vast majority of our study participants to NSC data if they have pursued post-secondary education.

To supplement NSC data, we will link our respondents and their children to Michigan public education data. We will work directly with school districts in Michigan to link our participants and their children to their education records, therefore the final sample of linked respondents depends on district-specific rules for releasing data. In addition, we will not be able to link participants who obtained education outside of the state. Michigan public education data contain administrative school records, which report school attendance, promotion to the next grade, grades, and graduation date. Together, NSC and Michigan K-college records enable us to study education enrollment and attainment of the study participants.

8. Birth certificates

We will provide Michigan Department of Health and Human Services (MDHHS) participants' full name, date of birth, address, and SSN, which allows MDHHS to locate birth certificates of participants and participants' children. We expect to find approximately 77 percent of participants and 90 percent of participants' children in these data.¹⁵ Each birth record contains the date of birth, mother's marital status, father's name, source of payment, gestation, number of prenatal visits, and the date of the first prenatal visit. This data allows us to validate mother reports of the number of children and study several types of outcomes: (1) childbearing (number of births, timing/spacing of births); (2) childbearing and partnership stability (non-marital childbearing, no father on the birth certificate); (3) health of a pregnancy (number of prenatal visits, the timing of the first prenatal visit, gestation length), and (4) receipt of public services (whether the birth was paid for by Medicaid).

9. Public program participation

We will use several types of data available to analyze public program participation: Medicaid, Supplemental Nutrition Assistance Program (SNAP), and Temporary Assistance for Needy Families (TANF). These data allow us to observe program enrollment and expenditures for study participants.

10. Michigan criminal justice records

We expect that criminal records data will be available through the RDC starting in the summer of 2018. These data track an individual on a quarterly basis, collecting information their arrests, prison entries, and incarceration status (these data are not state-specific and include records from all contributing data providers).

¹⁵ In ACS2015, among children who reside in Michigan, are under 18 years old, whose mothers are 18-35 years old, and with family income less or equal to \$80,000, 91 percent were born in Michigan. Among women 18-35 years old residing in Michigan with family income less or equal to \$80,000, 77 percent were born in Michigan.

Appendix B. Variable Definitions

We expect to use the following variable definitions, but these variable definitions may be altered if the distributions of answers are very different from what is expected. For instance, a pre-specified categorical variable may be undefined if very few or no women report being in a particular category; in this case we will modify variable definitions from what is specified below.

1. Screening survey

We use the screener survey information to measure demographic information. Specifically, we are able to control for the following demographic characteristics:

Age

Q7 asks respondent her age, which is entered as an integer. From the answer, we construct several age indicators: *Age 18-19*, which equals to 1 if a respondent is 18 or 19 years old at the time of the screening survey, and 0 otherwise; *Age 20-22*, *Age 23-25*; *Age 26-29*; and *Age 30-35*, which are similarly defined.

Race

Q9 asks the respondent for her racial background, allowing for multiple responses. We code these responses as follows: *White* equals to 1 if respondent selects “White” as the only category, and 0 otherwise; *African-American* equals to 1 if respondent selects “Black, African, or African American” as the only category, and 0 otherwise; *Other/mixed race* equals to 1 if respondent selects “American Indian, Alaskan Native or Native Hawaiian”, “Hispanic or Latino”, “Asian or Pacific Islander”, or “Another race/ethnicity” as the only category or selects two or more responses, and 0 otherwise.

Co-residence with partner

Q10 asks respondent if she is currently living with a spouse or a romantic partner. We create a variable *Cohabit with partner* equal to 1 if respondent selects “Yes” as an answer, and equal to 0 otherwise.

Marital Status

Q11 asks respondent to select a response to describe her relationship status. We create the following variables: *Married* equals to 1 if respondent selects “Married”, and equal to 0 otherwise; *Committed relationship*, *Casual relationship*, *No relationship* are similarly defined.

Educational attainment

Q13 asks respondent to select levels of schooling completed so far, allowing for multiple responses. For brevity, we assign numbers to categories in this way: “GED” - 1, “High school diploma” - 2, “Went to college but did not get a degree” - 3, “Vocational Degree/Certificate” - 4, “Associate's degree” - 5, “Bachelor's degree” - 6, “Graduate degree” - 7, “None of the above” - 0. We construct the following variables: *No degree* equals to 1 if respondent selects category 0, and no other categories, and 0 otherwise; *GED* equals to 1 if respondent selects category 1 and no other categories, and equals to 0 otherwise; *High school* equal to 1 if respondent selects categories 2 or 2 and any of the categories < 2, and equals to 0 otherwise; *Some college* equals to 1 if respondent selects category 3 or 3 and any of the categories < 3, and equals to 0 otherwise; *Vocational degree* equals to 1 if respondent selects category 4 or category 4 and of the categories < 4, and equals to 0 otherwise; *College degree or more* if a respondent selects categories 5-7, and 0 otherwise.

Number of children

Q19 asks respondent to enter the number of live births she has had. We create the following variables: *One child* equal to 1 if a respondent has had 1 live birth and equal to 0 otherwise, *Two children* equal to 1 if a respondent has had 2 live births and equals to 0 otherwise, *Three+ children* if respondent has had three or more live births, and equal to 0 otherwise. Finally, we create a dummy *No children* equal to 1 if a respondent has had 0 live births, and equal to 0 otherwise.

Income/fee scale category

Q5 on the screener collects information on respondent's payment category, from which we create the following variables: *101-150% FPL* equals to 1 if respondent selects category 2 and equals to 0 otherwise; *151-200% FPL* equals to 1 if respondent selects category 3 and equals to 0 otherwise; *201-250% FPL* equals to 1 if respondent selects category 2 and equals to 0 otherwise; *Above 250% FPL* equals to 1 if respondent selects category 5 and equals to 0 otherwise.

Currently using birth control

Q25 asks whether a respondent is currently using birth control. We create a variable *No method used* equal to 1 if respondent selects "No", and equal to 0 otherwise.

Main contraceptive method

Q26 asks respondent to select main method to prevent or delay pregnancy. We create the following variables: *Birth control pills* equal to 1 if respondent selects "Birth control pills", and equal to 0 otherwise; *Condoms*, *Withdrawal* are similarly defined. *Injections* equals to 1 if respondent selects "Shot", and 0 otherwise. We create a variable *LARC* equal to 1 if respondent selects "Implant" or "Intrauterine device or IUD", and 0 otherwise. Finally, we create a variable *Other method* equals to 1 if a respondent selects any other answer, and 0 otherwise.

2. Voucher and PPMI Services Use

We will construct the following variables relating to the efficacy of the intervention, including take-up of vouchers and expenditures at PPMI following the intervention.

Used voucher within 100 days

This variable measures the take up of the voucher and the efficacy of the intervention. It will be constructed using PPMI data. PPMI records will provide us with data on the amount and date participants use their voucher. *Used voucher within 100 days* is equal to 1 for all study participants who use a voucher within 100 days allowed by the study. If the intervention is a success, we expect receiving a voucher to predict voucher use. (Finding that this is not the case is evidence of a failure of implementation or that participants do not value the PPMI services one could buy with the voucher.)

Total expenditures at PPMI within 100 days

This variable measures the total value of services purchased and is constructed using PPMI data. As part of each study participant's records, PPMI will provide us with data on the amount of services purchased at PPMI using any pay source: self-pay, insurance, or voucher. *Total expenditures at PPMI within 100 days* is equal to total payments made to PPMI within 100 days from any pay source. By construction, total voucher amount used at PPMI is 0 for participants in the control group. We expect total expenditures to be higher in the treatment group.

Out-of-pocket (oop) payment in 100 days

This variable measures the amount of out-of-pocket payments made by each study participant, and is constructed from PPMI patient data. We will measure both *Total oop payments at PPMI within 100 days* as well as construct a binary variable documenting *Any oop payment at PPMI within 100 days*.

Share of voucher used

This variable measures the share of voucher used at PPMI. We will add expenditures paid by the voucher within 100 days of enrollment from PPMI patient records, and divide by the total voucher amount.

Reasons for nonuse

This set of variables captures various reasons for voucher nonuse, collected in the baseline survey Q9 (they are all equal to 0 for participants who have used the voucher by the time they complete the baseline survey). We create dummy variables capturing each of the following responses "I did not have any costs", "I did not need any Planned Parenthood services", "I did not have time to use it", "I forgot to use it", "I do not want to use it".

Intend to use voucher

These variables measures whether a respondent who has not used the voucher by the time she completes the baseline survey intends to use the voucher, constructed from answers to Q10 on the baseline survey. By construction, these variables are not defined for respondents who have used the voucher by the time of the baseline survey. We create dummy variables capturing each of the following responses: “Yes, I have already scheduled an appointment and will use it then”, “Yes, but I have not scheduled an appointment yet”, “No, I do not plan to use the gift card”.

Intend to use voucher – contraceptive method

This set of variables captures the types of contraceptives respondent plants to purchase with the voucher, constructed from answers to Q11 on the baseline survey. By construction, these variables are not defined for respondents who have used the voucher by the time they complete the baseline survey. These variables are equal to 0 for respondents who do not intend to use the voucher. We group intended contraceptive methods as follows: *Intend - Pills* equal to 1 if respondent selects “Birth control pills”, and equal to 0 otherwise; *Intend - Injection* if respondent selects “Shot”, and 0 otherwise; *Intend – LARCs* if respondent selects “Intrauterine device, or IUD” or “Implant”, and 0 otherwise; *Other method* equals to 1 if respondent selects any of the other methods, and 0 otherwise.

Any contraceptive use

This variable measures whether the intervention affects the use of any contraception. The variable will be constructed using PPMI data, which contains information on contraceptive services provided at PPMI, and survey data, which provides data on self-reported contraceptive use. We will construct a binary variable *Using any method*=1 if a participant receives any contraceptive method at any of PPMI clinics within 100 days of the enrollment date or reports that she is using a method at baseline.

Temporal coverage of contraceptive method

This variables measures whether the intervention affects the temporal coverage of purchased/used contraceptive method. The variable will be constructed from the survey data and PPMI clinic data, using information on the date of clinic visits, and the services obtained at the visits. Specifically, we will use data on the type and quantity of birth control obtained to construct expected method duration. We will define *Duration of method for X months* = 1 if the participant obtains enough birth control to provide coverage for X months. For example, if a participant purchases 3-month supply of birth control pills on the day she is recruited, we infer that she continues to use birth control pills uninterrupted for 3 months. If she chooses an IUD, we infer that she has coverage with her baseline method for 3 years.

Use of high and/or moderate efficacy method (100 days)

These variables measures whether the intervention affects the use of higher efficacy contraceptives. The variable will be constructed using PPMI data and survey data. We will construct a binary variable *Using any high efficacy method*=1 if a participant receives any Tier 1 method (IUD, implant, or sterilization) at any of PPMI clinics within 100 days of the enrollment date or reports that she is using a Tier 1 method at screening or baseline. We will construct another binary variable *Using any moderate efficacy method*=1 if a participant uses at baseline or screening or receives at any of PPMI clinics within 100 days of the enrollment date any Tier 1 or Tier 2 method (pill, patch, ring, injectable, diaphragm). We construct a third binary variable *Using any high/moderate efficacy method* equal to 1 if *Using any moderate efficacy method*=1 or *Using any high efficacy method*=1, and equal to 0 otherwise.

Switched contraceptive method within 100 days

This variable measures whether the intervention affects participants’ decisions to switch their contraceptive method. The variable will be constructed using PPMI data and survey data. We will construct a binary variable *Switched method*=1 if a participant switches her method from what is reported on the screening survey¹⁶ to the baseline (completed after the clinic visit) or the method she obtains from PPMI within 100

¹⁶ The screening survey asks, “What is the one main method to prevent or delay pregnancy you are currently using?”

days of the enrollment date.¹⁷ Similarly, we define *Switched to higher tier method*=1 if the participant switches to a higher tier method within 100 days of the enrollment date.

Method efficacy

This variable measures the efficacy of each participant's method use based on CDC reports.¹⁸ For instance, a respondent given an implant will be coded as having a 0.05 percent failure rate, whereas a respondent using birth control pills will be coded as having a 9 percent failure rates in every month for which she purchases a supply. The variable will be constructed from PPMI clinic data, using information on the date of clinic visits, and the services obtained at the visits.

3. Pregnancy and Childbirth

Pregnancy tests

We will use two variables to measure whether the intervention affects the likelihood of a pregnancy test at PPMI using PPMI data. We will construct a binary variable *Any pregnancy test*=1 if a participant receives any positive pregnancy test within 1 year of enrollment. We will also use *Number of pregnancy tests* that counts the number of positive pregnancy tests ordered by PPMI for the participant within 1 year of enrollment.

Childbirth

We will measure whether the intervention affects childbirth using Michigan Vital Statistics Natality Data (birth certificates). We will construct *Number of births* variable equal to the number of births for the participant within 1 year of respondent.

Abortions

We will measure whether the intervention affected incidence of abortions. We will construct a binary variable *Abortion*=1 if a participant has an abortion within 1 year of enrollment, using PPMI records data. We will also construct *Number of abortions* which counts the number of abortions observed for the participant in PPMI data within 1 year of enrollment.

Emergency contraceptive use

We will measure whether the intervention affected incidence of emergency contraceptive use. We will construct a binary variable *Any emergency contraceptive use*=1 if a participant obtains emergency contraception within 1 year of enrollment, using PPMI records data. We will also construct a continuous measure of frequency of emergency contraceptive use, *Emergency contraceptive use*, which counts the number of times the participant obtains emergency contraceptives at PPMI within 1 year of enrollment.

4. Education, Employment, Income, and Public Program Use

Educational enrollment

This variable measures whether a participant is enrolled in any type of schooling. We will use information from the National Student Clearinghouse and Michigan K-college data for linked respondents as well as tax information to create a variable *Any educational enrollment* =1 if participant is enrolled in any type of school in Michigan within 1 year of enrollment in the study.

Educational enrollment – type of enrollment

This variable measures whether a participant is enrolled in a given type of school. We will use information from the National Student Clearinghouse and Michigan K-college data for linked respondents. We will create a set of indicator variables denoting enrollment in a particular type of school. *Enrollment in GED program* =1 if a participant is enrolled in a GED program in Michigan within 1 year of enrollment in the

¹⁷ The baseline survey asks, “Did you get a birth control method at [if today's date=screen date: today's] / [if today's date>screen date: your last] visit to Planned Parenthood?”, “If yes, what type of birth control did you get at [if today's date=screen date: today's] / [if today's date>screen date: your last] visit to Planned Parenthood?”

¹⁸ https://www.cdc.gov/reproductivehealth/unintendedpregnancy/pdf/contraceptive_methods_508.pdf (downloaded June 28, 2017).

study, *Enrollment in a 2-year program* =1 if a participant is enrolled in 2-year program in Michigan within 1 year of enrollment in the study, and *Enrollment in a 4-year program* =1 if a participant is enrolled in 4-year program in Michigan within 1 year of enrollment in the study.

Educational enrollment – full-time/part-time

This variable measures whether a participant is enrolled in any type of schooling full-time or part-time. We will use information from the National Student Clearinghouse for linked respondents. We will create a variable *Educational enrollment full-time* =1 if a participant is enrolled full-time in any type of schooling in Michigan within 1 year of enrollment in the study. *Educational enrollment part-time* =1 if a participant is enrolled part-time in any type of schooling in Michigan within 1 year of enrollment in the study. In addition, we can supplement this information with tax records.

Employment

This variable measures whether a participant is employed. We will use information from the Office of Tax Analysis and IRS 1040s from the RDC and code this variable as =1 if a participant has more than \$1,000 in taxable earnings in the within 1 year of enrollment (>\$1,000 is the standard, OTA internal definition of being employed).

Total Income from Earnings

This variable measures how much a participant earned. We will use information from the Office of Tax Analysis and IRS 1040s from the RDC and code this variable as the total income from earnings within 1 year of enrollment in the study.

SNAP/TANF participation

We have obtained an agreement to use administrative records regarding SNAP and TANF for the state of Michigan from the RDC. We will use this data to construct two measures of program participation: *Received any SNAP/TANF payments*=1 if a participant receives any SNAP/TANF payments within 1 year of enrollment and *Dollars in SNAP/TANF benefits received* = total amount of SNAP/TANF benefits received within 1 year of enrollment.

5. Financial well-being

The variables below are measured since the date of enrollment for each participant to assess how voucher assignment is related to financial well-being of participants.

Any collection

This variables measures the incidence of unpaid bills that have been sent to collection. This variable will not capture the full extent of unpaid bills for several reasons: since not all unpaid bills are sent to collection (larger creditors such as hospitals and utility companies are more likely to send bills to collection); some unpaid bills may be collected by the creditors themselves and not collection agencies; there is a delay between the time of the unpaid bill and the time it is sent to a collection agency. Any collection=1 if a participant has a record of a collection since the date of enrollment, and 0 otherwise.

Amount owed in collection

This variable measures the amount owed in collections at the time of the data extract – it will not capture the amount in collections that has been paid. However, as only 11 percent of reported collections items are paid off (Avery, Calem, and Canner, 2003) we expect that this measure will capture most of the money owed. This variable equals to 0 for participants who have no bills sent to collection.

Any delinquency

Any delinquency = 1 if a participant has had any delinquency on any credit account (defined as a payment that is at least 30 days late) since the date of enrollment, and 0 otherwise. If a participant has no open credit since the notification date, this variable equals to 0 by construction.

Any major delinquency

This variable measures more serious delinquency on a credit account. Any major delinquency = 1 if a participant has had any delinquency on any credit account (defined as a payment that is at least 30 days late) since the date of enrollment, and 0 otherwise. If a participant has no open credit since the notification date, this variable equals to 0 by construction.

Total debt

This variable measures total debt incurred by the respondent. It includes amount owed in collection, loans, mortgages, liens, credit card debt, school loans, etc.

6. Neighborhood qualityAddress changes since enrollment

Number of address changes is constructed from the tax data and measures the number of different addresses reported in the tax returns.

Income-to-poverty ratio in census tract of residence

This variable is constructed from the Census data, and equals to the average income in the census tract of residence divided by the poverty threshold.

Teen pregnancy in tract

Share of women under age 20 in the census tract who have a child living with them. This variable is constructed from the Census data, and equals to the number of households with one household head divided by the total number of households in the tract of residence.

Share of households receiving public assistance in tract

This variable is constructed from the Census data, and equals to the number of households receiving public assistance divided by the total number of households in the tract of residence.

Share of poor children in tract

This variable is constructed from the Census data, and equals to the number of children (under the age of 18) living in households with family income below the poverty threshold divided by the total number of children living in households in the tract of residence.

Share of home ownership in census tract of residence

This variable is constructed from the Census data, and equals to the number of households who own the housing unit divided by the total number of households in the tract of residence.

Median house price in census tract of residence

This variable is constructed from the Census data and equals to the median house value for all housing units in the tract of residence.

Appendix C. Example Tables

We expect to present our results using the tables shown in this section.

Table C1. How Do M-CARES Participants Compare to Other Groups

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
	M-CARES Participants	PPMI patients	Screener respondents	NSFG 2013-2015	ACS 2015	ACS (MI) 2015	M-CARES participants versus PPMI patients	M-CARES participants versus Screener respondents	M-CARES participants versus NSFG	M-CARES participants versus ACS 2015	M-CARES participants versus MI ACS 2015
Age 18-19	mean (std. dev.)						diff. (std. err.)				
Age 20-22											
Age 23-25											
Age 26-29											
Age 30-35											
White											
African-American											
Other or mixed race											
101-150%FPL											
151-200%FPL											
201-250% FPL											
251+% FPL											
Less than high school											
High school degree											
Some college											
College degree or more											
0 births											
1 birth											
2 births											
3+ births											
Cohabit with partner											
Married											
Currently using											
birth control pills											
LARCs											
condoms											
withdrawal											
other method											
no method											
Observations											

Notes: Column 1 reports characteristics of M-CARES participants for variables constructed from data collected on the screener survey (see Appendix B for variable definitions). Column 2 reports characteristics of PPMI patient population, constructed from PPMI administrative records (variables measuring educational attainment, current method use, and fertility are not available in PPMI administrative data). Column 3 reports characteristics of all screener survey respondents, including respondents who are ineligible to participate and respondents who are eligible but chose not to participate in the study. Column 4 reports characteristics of respondents to the National Survey of Family Growth (NSFG) 2013-2015 who are 18-35 years old, are above the poverty line, and have family income below \$75,000. Column 5 reports characteristics of female respondents to the American Community Survey (ACS) 2015 who are 18-35 years old, are above the poverty line, and have family income below \$75,000 (contraceptive use measures are not available in the ACS). Column 6 is identical to column 5, with the exception that respondents reside in Michigan. Columns 7 through 11 present t-tests of mean differences between M-CARES participants and the indicated groups. ***indicates the means are statistically different at the 1-percent level; ** at the 5-percent level; and * at the 10-percent level.

Table C2. Sample Attrition and Non-Response

	(1)	(2)	(3)	(4)	(5)	(6)
	In the baseline survey sample	In the PPMI sample	In the tax sample	In the credit reports sample	In the birth record sample	In the Census record sample
Voucher	coef. (std. err.)					
Age 18-19						
Age 20-22						
Age 23-25						
Age 26-29						
Age 30-35						
White						
African-American						
Other or mixed race						
101-150%FPL						
151-200%FPL						
201-250% FPL						
251+% FPL						
Less than high school						
High school degree						
Some college						
College degree or more						
0 births						
1 birth						
2 births						
3+ births						
Cohabit with partner						
Married						
Currently using						
birth control pills						
LARCs						
condoms						
withdrawal						
other method						
no method						
Day signed up						
p-value for test of						
regressor joint						
significance						
Observations						

Notes: This table presents the means of basic characteristics for various subsamples (see Appendix B for variable definitions and section 3.5 for the discussion).

Table C3A. Joint Test of Balance

	(1)	(2)	(3)	(4)	(5)	(6)
	In the baseline survey sample	In the PPMI sample	In the tax sample	In the credit reports sample	In the birth record sample	In the Census record sample
Dependent Variable	<i>I=Received Voucher</i>					
Age 18-19	coef. (std. err.)					
Age 20-22						
Age 23-25						
Age 26-29						
Age 30-35						
White						
African-American						
Other or mixed race						
101-150%FPL						
151-200%FPL						
201-250% FPL						
251+% FPL						
Less than high school						
High school degree						
Some college						
College degree or more						
0 births						
1 birth						
2 births						
3+ births						
Cohabit with partner						
Married						
Currently using						
birth control pills						
LARCs						
condoms						
withdrawal						
other method						
no method						
Day signed up						
p-value for test of						
regressor joint						
significance						
Observations						

Notes: This table presents results from estimating equation (4), where the dependent variable denotes whether a participant receives a voucher (see Appendix B for variable definitions and section 4.2 for the discussion).

Table C3B. Balance of Treatment and Controls

	(1)	(2)	(3)	(4)	(5)
	Control group mean	Difference between treatment and control		Difference between treatment and control, inverse propensity-score reweighted estimates	
	mean (std.dev.)	diff. (std. error)			
Age 18-19					
Age 20-22					
Age 23-25					
Age 26-29					
Age 30-35					
White					
African-American					
Other or mixed race					
101-150% FPL					
151-200% FPL					
201-250% FPL					
251+% FPL					
Less than high school					
High school degree					
Some college					
College degree or more					
0 births					
1 birth					
2 births					
3+ births					
Cohabit with partner					
Married					
Currently using					
birth control pills					
LARCs					
condoms					
withdrawal					
other method					
no method					
Day signed up					
Clinic fixed effect		N	Y	N	Y
joint F-statistic					
Observations					

Notes: The table presents the differences in basic characteristics collected in the screening survey between the treatment and control groups (see Appendix B for variable definitions). Column 1 reports the means for the control group. Columns 2 and 3 report estimates of ρ from equation (4), or the estimated difference between treatment and control group, conditional on other covariates, without and with clinic fixed effects, respectively. Columns 4 and 5 are identical to columns (2) and (3), respectively, where the sample of participants has been re-weighted to match characteristics from nationally- and state-representative populations. ***indicates the means are statistically different at the 1-percent level; ** at the 5-percent level; and * at the 10-percent level.

Table C4. First-Stage Estimates: Contraceptive Efficacy

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Sample	Assigned a voucher and in screening survey		Assigned a voucher and in baseline survey		Assigned a voucher and in tax sample		Assigned a voucher and in credit reports sample		Assigned a voucher and in birth record sample		Assigned a voucher and in Census records	
	Control group mean	Estimated first stage	Control group mean	Estimated first stage	Control group mean	Estimated first stage	Control group mean	Estimated first stage	Control group mean	Estimated first stage	Control group mean	Estimated first stage
Baseline measure												
Use of high/moderate efficacy contraceptive in 100 days after enrollment	mean (std. dev.)	coef (std.error)										F-stat
Alternative definitions												
Total contraceptive expenditures at PPMI within 100 days												
Use of high/moderate efficacy contraceptive 1 year after enrollment												
Any contraceptive use												
High efficacy method use												
Temporal coverage of method												
Switched method within 100 days												
Continuous efficacy measure												
Index of contraceptive efficacy												
Observations												

Notes: This table presents the means for the dependent variable and estimates of π_1 from equation (2) for various measures of *Contraceptive Use*, and for various samples (see Appendix B for variable definitions). Odd-numbered columns present the mean and standard deviation, even-numbered columns present estimate of π_1 , standard error of the estimate, and F-statistic. The top panel reports estimates using our preferred measure, the bottom panel shows alternative measures. All regressions include basic covariates X described in section 3.2. ***indicates statistical significance at the 1-percent level; ** at the 5-percent level; and * at the 10-percent level.

Table C5. Unintended Pregnancy and Childbearing

	(1)	(2)	(3)	(4)	(5)
	Control mean	Reduced-form Estimate	2SLS estimate	unadjusted p-value	adjusted p-value
Index	mean (std.dev.)	coef (std. error)	coef (std. error)	p-value	p-value
Number of pregnancies					
Number of births					
Frequency of emergency contraceptive use					
Number of abortions					
Observations					

Table C6. Economic Self-Sufficiency

	Control mean	Reduced-form Estimate	2SLS estimate	unadjusted p-value	adjusted p-value
Index	mean (std.dev.)	coef (std. error)	coef (std. error)	p-value	p-value
Wage earnings					
Enrollment in college					
Any wage income					
Not incarcerated					
Income-to-poverty ratio					
No income from public assistance programs					
Not single head-of-household					
Not living with parent					
Observations					

Table C7. Financial Security

	Control mean	Reduced-form Estimate	2SLS estimate	unadjusted p-value	adjusted p-value
Index	mean (std.dev.)	coef (std. error)	coef (std. error)	p-value	p-value
No bills sent to collection					
Amount owed to collections*					
No delinquency >30 days					
No delinquency >120 days					
Total debt*					
Observations					

Table C8. Neighborhood Quality

	Control mean	Reduced-form Estimate	2SLS estimate	unadjusted p-value	adjusted p-value
Index	mean (std.dev.)	coef (std. error)	coef (std. error)	p-value	p-value
Income-to-poverty ratio in census tract of residence					
Teen pregnancy in tract*					
Share of single-headship in census tract*					
Share of households receiving public assistance in tract*					
Share of poor children in tract*					
Share of home ownership in census tract of residence*					
Median house price in tract*					
Number of address changes*					

Notes: This table presents estimates from reduced-form and 2SLS specifications. *Items indicated with * will be reverse coded in the index (see Appendix B for variable definitions). Column 1 reports the control group mean. Reduced form estimates from equation (1) are presented in column 2, 2SLS estimates from equation 3 are presented in column 3. We report both unadjusted p-values (column 4) and p-values adjusted for multiple-inference adjusted p-values (column 5).

Table C10. Summary Statistics of Voucher Use

	(1)	(2)	(3)
	mean	coef	coef
	(std.dev.)	(std.error)	(std.error)
Used the voucher			
Share of voucher left			
Voucher nonuse - no costs			
Voucher nonuse - no need			
Voucher nonuse - no time			
Voucher nonuse - forgot			
Voucher nonuse - do not want			
Intends to use - has appointment			
Intends to use - no appointment			
Does not intend to use			
Intend to use on LARCs			
Intend to use on pills			
Intend to use on injections			
Intend to use on other contraceptives			
Z Covariates			
C Covariates			
Clinic fixed effects		N	Y

Notes: This table presents regression-adjusted summary statistics for voucher use (see Appendix B for variable definitions and section 3.2 for definitions of Z and C covariates). Column 1 reports the means. The estimates presented in column 2 are residuals from estimating equation (1) without the clinic fixed effects, column 3 presents the residuals from equation (1) with clinic fixed effects. ***indicates statistical significance at the 1-percent level; ** at the 5-percent level; and * at the 10-percent level.

Table C11. Heterogeneity in the Impact of Contraceptive Efficacy (2SLS), Baseline Characteristics

	(1)	(2)	(3)	(4)	(5)	(6)
	Observations	First Stage	Unintended Pregnancy and Childbearing	Economic Self- Sufficiency	Financial Security	Neighborho od Quality
Age>=26						
White						
Other or mixed race						
Foreign born						
Pay Scale						
151-200%FPL						
201-250% FPL						
251+% FPL						
Years of education (continous)						
1 or more births						
Using Tier 1 or 2 method pre-randomization						
Have a usual place of care for birth control						
Delay in birth control reason						
Could not afford it						
Did not have time						
Could not get transportation						
Other						
Positive desire to have a baby interaction						
Negative desire to have a baby interaction						
Likelihood of meeting career aspiration interaction						

Notes: This table presents the results from heterogeneity analysis. Each estimate is either the interaction of voucher with a single dummy variable or, for pay scale and delay in birth control use, a set of dummies for the indicated category. Variables with "(continuous)" indicate the interaction of *Voucher* with a continuous variable (see Appendix B for variable definitions). Omitted are under age 26, African-American, native born, 101-150 % FPL, no births, not using Tier 1 or Tier 2 contraceptive methods pre-randomization, have a usual pace for birth control, did not delay getting birth control for any reason. ***indicates statistical significance at the 1-percent level; ** at the 5-percent level; and * at the 10-percent level

Table C12. Heterogeneity in the Impact of Contraceptive Efficacy (2SLS), by Contraceptive Attitudes, Relationship Quality, and Life Satisfaction

	(1)	(2)	(3)	(4)	(5)	(6)
	Observations	First Stage	Unintended Pregnancy and Childbearing	Economic Self- Sufficiency	Financial Security	Neighborho od Quality
<i>A. Contraceptive Attitudes</i>						
Contraceptive Attitudes Index	N	coef. std. err.	2SLS coef. std. err.	2SLS coef. std. err.	2SLS coef. std. err.	2SLS coef. std. err.
Birth control is expensive						
Difficult to find time to go to the doctor for contraception						
Too much planning to have birth control						
Birth control is a hassle						
Birth control makes you feel sick						
Birth control interferes with sexual enjoyment						
A condom is a sign of mistrust						
Very religious						
<i>B. Relationship Quality</i>						
Relationship quality index						
Lots of time with partner						
Exclusive relationship						
Partner desire pregnancy						
Married or Cohabiting						
Intimate partner violence index						
<i>C. Life satisfaction</i>						
Life satisfaction index						
Satisfied with life (continuous)						
General health (continuous)						

Notes: This table presents the results from heterogeneity analysis. Estimates report the interaction of voucher with a dummy variable or a continuous variable (see Appendix B for variable definitions). Column 1 reports the number of observation in the estimation sample and column 2 reports first stage estimates. Columns 3 through 5 report 2SLS estimates for various deomains. ***indicates statistical significance at the 1-percent level; ** at the 5-percent level; and * at the 10-percent level.

Table C13. Extensive versus intensive margin - Unintended pregnancy and childbearing

	(1)	(2)	(3)	(4)	(5)	(6)
	Observations	Control mean	Reduced- form estimate	2SLS estimate	unadjusted p-value	adjusted p- value
<i>A. Extensive Margin</i>						
Any pregnancy		mean (std.dev.)	coef (std. error)	coef (std. error)	p-value	p-value
Any abortion						
Any emergency contraceptive use						
<i>B. Intensive Margin</i>						
Number of pregnancies if >0		mean (std.dev.)	coef (std. error)	coef (std. error)	p-value	p-value
Frequency of emergency contraceptive use if >0						
Number of abortions if >0						

Notes: This table presents estimates from reduced-form and 2SLS specifications, for the full sample (Panel A), and for the sample with positive values of the dependent variables (Panel B). Column 1 reports the number of observation in the estimation sample and column 2 reports the mean. Reduced form estimates from equation (1) are presented in column 3, 2SLS estimates from equation 3 are presented in column 4. We report both unadjusted p-values (column 5) and p-values adjusted for multiple-inference adjusted p-values (column 6).

Table C14. Comparisons with OLS Results

	Control mean	Reduced-form Estimate	2SLS estimate	OLS
<i>A. Unintended Pregnancy</i>				
Index	mean (std.dev.)	coef (std. error)	coef (std. error)	coef (std. error)
Number of pregnancies				
Number of births				
Frequency of emergency contraceptive use				
Number of abortions				
Observations				
<i>B. Self-Sufficiency</i>				
Index	mean (std.dev.)	coef (std. error)	coef (std. error)	coef (std. error)
Wage earnings				
Enrollment in college				
Any wage income				
Not incarcerated				
Income-to-poverty ratio				
No income from public assistance programs				
Not single head-of-household				
Not living with parent				
Observations				
<i>C. Financial Security</i>				
Index	mean (std.dev.)	coef (std. error)	coef (std. error)	coef (std. error)
No bills sent to collection				
Amount owed to collections*				
No delinquency >30 days				
No delinquency >120 days				
Total debt*				
Observations				
<i>D. Neighborhood Quality</i>				
Index	mean (std.dev.)	coef (std. error)	coef (std. error)	coef (std. error)
Income-to-poverty ratio in census tract of residence				
Teen pregnancy in tract*				
Share of single-headship in census tract*				
Share of households receiving public assistance in tract*				
Share of poor children in tract*				
Share of home ownership in census tract of residence*				
Median house price in tract*				
Number of address changes*				

Notes: This table presents comparison of reduced-form, 2SLS and OLS results. *Items indicated with * will be reverse coded in the index (see Appendix B for variable definitions). Column 1 reports the mean in the control sample, reduced-form, 2SLS and OLS estimates are presented in columns 2, 3, and 4, respectively.

Table C15. The Incidence of Sexually Transmitted Infections

	(1)	(2)	(3)	(4)	(5)
	Control	Reduced-	2SLS	unadjuste	adjusted p-
	mean	form	estimate	d p-value	value
	mean	Estimate	coef. (std.		
	(std.dev.)	coef. (std.	error)	p-value	p-value
		error)	error)		
Any STD/STI					
HIV					
Gonorrhea					
Chlamydia					
Syphilis					
Herpes					
HPV					
Observations					

Notes: This table presents estimates from reduced-form and 2SLS specifications, for the full sample (Panel A), and for the sample with positive values of the dependent variables (Panel B). Column reports the mean. Reduced form estimates from equation (1) are presented in column 2, 2SLS estimates from equation 3 are presented in column 3. We report both unadjusted p-values (column 4) and p-values adjusted for multiple-inference adjusted p-values (column 5).

Appendix D. M-CARES Materials

This section presents materials used in the M-CARES study. These include (1) an informational brochure, (2) the Screening Survey, (3) the Baseline Survey, (4) the Consent Form, and (5) the Interviewer Oral Script. These items are subject to minor changes due discussions with the IRB and NORC.

Frequently Asked Questions about M-CARES

Why am I not eligible to be in this study?

Only women ages 18 to 35 who need and would have to pay for contraceptives are eligible.

Will participating take a lot of my time?

The first survey will take about 25 minutes to complete, and the second and the third surveys will take about 30 minutes each. We will use your personal information (name, date of birth, contact information, and social security number) to access your administrative records and save you time filling out surveys.

Who will see the information I provide for this study?

Your privacy is very important to M-CARES. We will keep your personal information, survey responses, and administrative records completely confidential. All of your responses will be encrypted and stored on password-protected computers. We plan to publish the results of this study, but we will not publish any information that would identify you or a family member.

Why didn't I get a gift card for contraception?

We know money for contraception can be very important, and that is why we are doing this study. Unfortunately, we have funding to provide only half of the women in M-CARES with a gift card. Even if you don't get a gift card, you can still earn up to \$160 by participating in the study and completing surveys.

More questions?

Please email us at m-carestudy@umich.edu or call us toll-free at 1-844-864-8258.

M-CARES research project is conducted by:

the University of Michigan  INSTITUTE FOR SOCIAL RESEARCH UNIVERSITY OF MICHIGAN

and NORC at the University of Chicago,  NORC at the UNIVERSITY OF CHICAGO

in collaboration with Planned Parenthood of Michigan. 

The research team at the University of Michigan includes Martha Bailey, PhD, Principal Investigator; Jennifer Barber, PhD; Vanessa Dalton, MD, MPH; Daniel Eisenberg, PhD; and Alfa Karimova, PhD.

M-CARES is sponsored by the Laura and John Arnold Foundation.



M-CARES

MICHIGAN CONTRACEPTIVE ACCESS,
RESEARCH AND EVALUATION STUDY



Evaluating how affordable contraception
affects women and families.

M-CARES needs your help!

M-CARES will help women afford contraception so they can avoid and delay pregnancies they don't want. Study results will help policymakers understand how clinics like Planned Parenthood matter for the women who use them.



M-CARES needs 5,000 volunteers, ages 18 to 35, to tell us about their lives, including:

- Contraception, pregnancies, and childbearing
- Health and use of health care
- Schooling and training
- Work hours, jobs, earnings, and financial success
- Romantic and sexual relationships
- Parenting and children
- Hopes and dreams for the future
- Overall well-being

M-CARES appreciates your participation!

Your participation requires that you:

- Sign up after taking a short survey to determine eligibility (10 minutes).
- Complete an initial survey (about 25 minutes).
- Complete two follow-up online surveys (about 30 minutes each).
- Provide your personal information so that M-CARES can link to your administrative records.

If you participate in M-CARES, you can expect:

- Your personal information will be kept secure and confidential.
- \$10 cash today for taking the short eligibility survey.
- \$60 cash today for completing the first survey at Planned Parenthood (\$40 if you take it later).
- Up to \$100 for completing 2 more surveys in the next 5 years.
- The chance to win a gift card for contraception at Planned Parenthood.



If you sign up for M-CARES, you may withdraw from the study at any time by emailing us at: m-carestudy@umich.edu

Introductory screen for interviewer—click the logo to start



Interviewer, please touch the logo and enter your response to the first question.

Surveyor Confirm Can Take Screen

1. Interviewer enter payment scale

Interviewer, please indicate the fee scale on the small [color] card given to the woman by PPMI.

- 1/A
- 2/B
- 3/C
- 4/D
- 5/E

2. Interviewer confirmation of payment scale

[Print Q1 and Q1 answer.] (The following could also be a pop-up box.)

Is your answer correct?

No [SKIP to Q1]

Yes [If YES and Q1=1, STOP SURVEY: GO TO FIRST SCREEN WITH LOGO]

Interviewer please hand the tablet to the respondent.

Introductory screen for respondent—click the logo to start



Thank you for taking this survey to determine if you're eligible to participate in M-CARES.

The survey should take you around 5 minutes and you will receive \$10 in cash for completing it.

After you complete this survey, we will ask you to participate in the M-CARE study *if you are eligible*.

Please ask the interviewer if you have any questions or need any help.

Screen

3. Already enrolled in M-CARES

Have you already signed up for M-CARES?

Yes

No [GO TO Q5]

4. Confirmation of payment scale

[As a pop-up box on the same screen:] Is it correct that you have already signed up for M-CARES?

Yes, it is [If YES, STOP SURVEY: PRINT BOX BELOW]

No, it isn't [SKIP to Q3]

5. Payment category

When you checked in at Planned Parenthood today, you received a small M-CARES card with your fee scale. Which box is checked?

1/A

2/B

3/C

4/D

5/E

[If Q2=Q1, SKIP to Q7]

6. Confirmation of payment scale

[As a pop-up box on the same screen:] Can you confirm that the fee scale you entered is the same as on your M-CARES card?

Yes, it is [If YES and Q5=1, STOP SURVEY: GO TO FIRST SCREEN WITH LOGO]

[If YES and Q5≠Q1, PRINT BOX BELOW]

[If YES and Q5=Q1 and Q3≠1, GO TO Q7]

No, it isn't [SKIP to Q5]

Your answer differs from what you told the interviewer.
Please hand the tablet back to the interviewer.

[After 30 seconds, GO TO FIRST SCREEN WITH LOGO]

7. Age

[If Q3=Q1]: How old are you?

_____ [Integer 0-99]

8. Confirmation of age

[If Q3=Q1 and Q7<18 or Q7>35] (As a pop-up box on the same screen:) Can you confirm your age is entered correctly?

Yes, it is [If YES and Q7<18 or Q7>35, STOP SURVEY AND PRINT BOX:

Unfortunately, based on your age, you are ineligible to participate
in this study.
Please hand the tablet back to the interviewer.

No, it isn't [SKIP to Q7]

After 30 seconds, GO TO FIRST SCREEN WITH LOGO.

Demographic characteristics

9. Race

Which of these groups *best* describes your racial/ethnic background? (Choose all that apply.)

American Indian, Alaskan Native or Native Hawaiian

Asian or Pacific Islander

Black, African, or African American

Hispanic or Latino

White

Another race/ethnicity: _____

10. Living with partner

Are you currently living with your spouse or romantic partner?

Yes

No

11. Marital status

Which of the following best describes your current relationship status? (Choose one answer.)

Married

Not married, but in a committed relationship

Not married, but in a relationship

Not in a relationship

12. Partner male

Who do you have sex with? (Choose all that apply.)

Men

Women

Transgender

I am not sexually active

13. Educational completion

What is the highest degree or level of school you have COMPLETED? If currently enrolled, mark the previous grade or highest degree received. (Choose one answer.)

No schooling completed

Grade 1 through 11 [if select, ask: Specify grade: ____ [accept 1 or two integers 1-11]

12th grade [Roll out below if select]

NO DIPLOMA

Regular high school diploma

GED or alternative credential

College or some college [Roll out below if select]

Some college credit, but less than 1 year of college credit

1 or more years of college credit, no degree

Associate's degree (for example: AA, AS)

Bachelor's degree (for example: BA, BS)

More than a bachelor's degree [Roll out below if select]

Master's degree (for example: MA, MS, MEng, MEd, MSW, MBA)

Professional degree (for example: MD, DDS, DVM, LLB, JD)

Doctorate degree (for example: PhD, EdD)

PPMI questions

14. Clinician visit

Is your visit today with a clinician? (This is indicated on your small M-CARES card.)

- Yes
- No

15. Reason for your visit today

What is the reason for your visit today? (Check all that apply).

- Family planning services or to get a method to avoid or delay pregnancy (condoms, pills, intrauterine device, contraceptive implant, etc.)
- Acute problem or illness
- Pregnancy test or pregnancy counseling
- Screening or treatment for sexually transmitted infection
- Routine examination (pelvic exam, pap smear or breast exam)
- Plan B (or morning after pill)
- Abortion (or abortion Pill)
- Other: _____

16. Payment method

Do you have health insurance? (This can be found on the card you received at check-in.)

- Yes
- No

17. Out-of-pocket costs

Do you expect to pay yourself for any of the costs for your office visit today?

- Yes
- No
- Don't know

18. Out-of-pocket costs for method

If you were to get a method to avoid or delay pregnancy today, would you expect to pay for any of the costs yourself?

- Yes
- No
- Don't know

Childbearing History

19. Times have you given birth

How many live births have you had?

_____ [Integer 0-10]

20. Fecundity

Some women are not physically able to get pregnant or give birth [Q19=0 ?/Q19>0 another time?]. As far as you know, is it physically possible for you to get pregnant [Q19=0 ?/Q19>0 again?]

Yes [SKIP TO Q22]

No

21. Why sterile?

Why do you think it is impossible for you to get pregnant or give birth [Q19=0?/Q19>0 again?]

I had surgery (for example: hysterectomy, tubes tied, eggs removed)

Other: _____

22. Pregnant

Are you pregnant now or do you think you might be pregnant now?

Pregnant now

Think you might be pregnant now but are not sure

Not pregnant now

[SKIP TO Q24]

23. Trying to get pregnant

Were you trying to get pregnant?

Yes [SKIP TO Q25]

No

24. Want to get pregnant in next 12 months

Do you want to get pregnant in the next 12 months?

Yes

No

Birth control

25. Currently using birth control

[IF Q22≠Pregnant Now] In the past month, have you used any method to prevent or delay pregnancy?

[IF Q22=Pregnant Now] In the month before you got pregnant, were you using any method to prevent or delay pregnancy?

Yes

No **[SKIP TO ELIGIBILITY SCREEN]**

26. Birth control method

In the past month, what methods have you used to prevent or delay pregnancy? (Choose all that apply.)

Birth control pills

Condoms

Shot (for example: Depo-Provera)

Intrauterine device or IUD (for example: Liletta, Mirena, Paragard, or Skyla)

Withdrawal

Ring (for example: NuvaRing)

Patch (for example: Ortho Evra)

Implant (for example: Nexplanon)

“Morning after pill” or emergency contraception

Abstinence or not having vaginal sex

Rhythm method or natural family planning

Something else: _____

27. Main birth control method

[If Q26 more than one answer]: In the past month, what is the main method that you have used to prevent or delay pregnancy? (Choose one answer.)

[Print answers to Q26 and allow respondents to select]

Method Satisfaction

28. Method satisfaction

How satisfied are you with this method?

Very satisfied [SKIP TO CONSENT]

Pretty satisfied

Neutral

Unsatisfied

Very unsatisfied

29. Why not satisfied

What is the one main reason you are not very satisfied with this method? (Choose all that apply.)

Too expensive

Too difficult to obtain the method

Too difficult to use

Partner does not like it

You have side effects or are worried you might have side effects

You worry that the method will not work

The method does not protect against disease

The method decreases your sexual pleasure

Other: _____

Non-Participant Consent

ELIGIBILITY SCREEN: IF SCREEN POSITIVE [Q1 = [2-5], Q3 = [2-5], Q7 = [18-35], Q12=Men, Q13=Yes, Q22=Not Sure or Not Pregnant, Q24=Do Not Want to Get Pregnant in Next 12 months, Q20=Yes], SKIP TO INVITATION AND CONSENT.

30. Non-Participant consent to contact

We may be interested in getting in touch with you in the future about a different survey. May we have your name and contact information so that we might contact you in the future to ask you about your life and experiences?

Yes

No [GO TO LAST SCREEN FOR NONPARTICIPANTS]

31. Nonparticipant Name

What is your full, legal name?

32. Nonparticipant Cell Phone

What is the best phone number where you can be reached?

Phone number _____ [Computer should require 10 digits; first digit of area code should be between 2 and 9; array these numbers between dashes and not allow dashed entries]

33. Nonparticipant Email

What is your email address?

34. Nonparticipant Address

What is your current address?

Street Address _____

Apt _____

City _____

State _____

Zip _____

35. Nonparticipant Social media contact information

Please indicate social media accounts where we can reach you. For example, Facebook, Instagram, etc.

36. Nonparticipant Close contacts #1

What is the name of a person we could reach out to in the future to help us locate you?

First name _____

Last name _____

Email _____

Telephone _____

37. Nonparticipant close contact relationship

How do you know this person? Is s/he your: (Choose one answer.)

Parent

Spouse/partner

Sibling

Other relative

Friend

Neighbor

Other: _____

38. Nonparticipant Close contacts #2

What is the name of a second person we could reach out to in the future to help us locate you?

First name _____

Last name _____

Email _____

Telephone _____

39. Nonparticipant close contact #2 relationship

How do you know this person? Is s/he your: (Choose one answer.)

Parent

Spouse/partner

Sibling

Other relative

Friend

Neighbor

Other: _____

Last Screen for Nonparticipants



M-CARES

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Thank you so much for your time! Hand the tablet back to the interviewer, and she will give you \$10 for participating.

Please contact us if you have any questions about the M-CARE study.

You can call us toll-free at

1-844-864-8258

or email m-carestudy@umich.edu.

For study updates, visit <http://sites.lsa.umich.edu/m-carestudy>

Invitation and Consent

TO BE ADDED HERE.

Last Screen for Participants



M-CARES

MICHIGAN CONTRACEPTIVE ACCESS,
RESEARCH AND EVALUATION STUDY

Thank you so much for your time! Hand the tablet back to the interviewer, and she will give you \$10 for participating.

[If voucher=Yes:] She will also write your voucher number and dollar amount on your M-CARES card.

Before leaving the clinic today, please remember to take another survey. The other survey will take about 25 minutes and you will receive **\$60 in cash for completing it today at the clinic**. If you choose to finish the survey later, you will instead receive \$40 for completing it.

Please contact us if you have any questions about the M-CARE study.

You can call us toll-free at

1-844-864-8258

or email m-carestudy@umich.edu.

For study updates, visit <http://sites.lsa.umich.edu/m-carestudy>

Interviewer Observations

40. Interviewer enter PIN

Surveyor please enter your PIN

_____ [several digits]

41. Perceived interest

Overall, how great was R's interest in the survey?

Very high
Fairly high
Average
Fairly low
Very low

42. Perceived suspicion

How suspicious did respondent seem to be about the study before the survey?

Not at all suspicious
Somewhat suspicious
Very suspicious

43. Visible disabilities

Does the respondent have any visible disabilities?

Yes. Specify: _____
No
Don't Know

44. Apparent intelligence

Respondent's apparent intelligence

Very high
Fairly high
Average
Fairly low
Very low

GO TO FIRST SCREEN WITH LOGO TO BEGIN NEXT SURVEY.

Introductory screen—click the logo to start



Thank you for taking time for this survey. It should take you around 25 minutes.
Please ask the interviewer if you have any questions.

[If data of screening survey=date initiating this baseline survey]:

You will receive \$60 in cash for completing this survey *today* at the clinic. If you choose to finish the survey later, you will instead receive \$40 for completing it.

[If data of screening survey<date initiating this baseline survey]:

You will receive \$40 for *completing* this survey. We will give you the \$40 in cash if you are in a Planned Parenthood clinic, but the money will be mailed to you as a gift card if you are taking this survey outside of the clinic.

Link individual to screener and voucher information

1. Please enter your VID and PIN

[IF USING A PERSONALIZED HYPERLINK TO LINK TO SCREEN, SKIP TO Q2]: This is located on the card you received at check-in; you also should have received a text and email with this information.

VID: _____ [This is located on the card you received at check-in; you also received a]

PIN: _____ [This is located on the card you received at check-in]

2. Confirm first and last name

Please confirm this information is correct. *As a reminder, this information allows us to follow up with you and collect your administrative records. We will keep your information strictly confidential.*

Preload first and last name

Social security number

Telephone

Email

Address

Yes **[SKIP TO Q5]**

No

3. Update personal information

Please update or add information below. *As a reminder, this information allows us to follow up with you and collect your administrative records. We will keep your information strictly confidential.*

Update Add

First and last name: _____

Social security number: _____

Telephone: : _____

Email: _____

Address: _____

4. Reconfirm personal information

Please confirm this information is correct. *As a reminder, this information allows us to follow up with you and collect your administrative records. We will keep your information strictly confidential.*

Preload first and last name updated from Q3

Telephone updated from Q3

Email updated from Q3

Address updated from Q3

Yes

No **[SKIP TO Q3]**

Voucher and PPMI use

[ONLY FOR WOMEN WHO GOT A VOUCHER]

5. Voucher Value

What was the dollar value of the gift card that you received [if today's date=screen date: today?] / [if date>screen date: at your last visit to Planned Parenthood?]

___ [Integer 1-600]

6. Same-Day Use

Did you use your gift card towards any services at Planned Parenthood?

Yes

No

[SKIP TO Q9]

7. Any Money Left On Voucher

Do you have any money left on your gift card?

Yes

No

[SKIP TO Q12]

8. How Much Voucher

How much money is left?

___ [Integer 1-600] [SKIP TO Q10]

Remember you can spend this gift card until [DATE+ 100 days].

9. Why Did Not Use

[Clarification: SKIP IF Q6=YES] Why didn't you use the gift card?

I did not have any costs (for example: I have insurance, Planned Parenthood did not charge)

I did not need any Planned Parenthood services

I did not have time to use it

I forgot to use it

I do not want to use it

[SKIP TO Q12]

Other: _____

10. Intend to Use Gift Card

Do you plan to use the gift card in the future?

Yes, I have already scheduled an appointment and will use it then

Yes, but I have not scheduled an appointment yet

No, I do not plan to use the gift card

[SKIP TO Q12]

If your needs change, remember you can spend this gift card until [DATE+ 100 days].

11. How Will You Use Gift Card

How do you plan to use the gift card?

Intrauterine device or IUD (for example: Liletta, Mirena, Paragard, or Skyla)

Shot (for example: Depo-Provera)

Birth control pills

Ring (for example: NuvaRing)

Patch

Implant (for example: Nexplanon)

"Morning after pill" or emergency contraception

Something else: _____

Don't know

FOR ALL WOMEN EVEN THOSE WHO DID NOT GET A VOUCHER**12. Discussed birth control**

At [if today's date=screen date: today's] / [if today's date>screen date: your last] Planned Parenthood visit, did you talk with your provider about contraception (that is, ways to prevent or delay pregnancy?)

Yes No

13. Change birth control method for nonusers

[if SCREENQ22=NO]: Before [if today's date=screen date: today's] / [if today's date>screen date: your last] Planned Parenthood visit, you told us that you were not using any contraception (that is, using a method to prevent or delay pregnancy). Has that changed?

Yes [SKIP TO Q15] No [SKIP TO Q16]

14. Change birth control method for current users

[if SCREENQ22=YES]: Before [if today's date=screen date: today's] / [if today's date>screen date: your last] Planned Parenthood visit, you told us that you were using the following contraception (that is, using a method to prevent or delay pregnancy): [PRINT SCREEN Q22 ANSWER].

Are you still using [if one Q22 ANSWER: this method] / [if more than one Q22 ANSWER: these methods]?

Yes, and I plan to continue this method [SKIP TO Q16]
 Yes, but I plan to change or add a new method soon
 No, I changed my method

15. New method change

Which new methods of contraception [Q14=Yes, but...: are you planning to use? / Q14=No or Q13=Yes: are you using?] (Choose all that apply.)

Birth control pills
 Condoms
 Shot (for example: Depo-Provera)
 Intrauterine device or IUD (for example: Liletta, Mirena, Paragard, or Skyla)
 Withdrawal
 Ring (for example: NuvaRing)
 Patch (for example: Ortho Evra)
 Implant (for example: Nexplanon)
 "Morning after pill" or emergency contraception
 Abstinence or not having vaginal sex
 Rhythm method or natural family planning
 Something else: _____

[Q14=Yes, but...] I plan to stop using any method

16. Rate care

At [if today's date=screen date: today's] / [if today's date>screen date: your last] visit to Planned Parenthood, how satisfied were you with the care you received?

Very dissatisfied

Somewhat dissatisfied

Neutral

Satisfied

Very satisfied

Work and Income

17. Working for Pay

Are you currently working for pay? (Working for pay can be anything someone does for pay – a full-time or part-time job or jobs like childcare, housecleaning, yard work, errands, etc.)

Yes No

18. Current job

What kind of work do you [if Q17="No": usually do when you are working. That is, what is your usual job or occupation?/ [if Q17="Yes": do? That is, what is your current job or occupation?]

19. Want a job

Did you look for work at any time during the last 12 months?

Yes No

20. Currently looking for work

[if Q17="No"]: Are you currently looking for paid work, either full or part-time?

Yes No

21. Hours per week

How many hours per week [Q17=YES: do you usually work at your main job?]/[Q17=NO: would you like to work]?

_____ [Integer 0-99]

22. Income category

Which of the following categories best describes your total household income from all sources?

\$0 to \$4,999
 \$5,000 to \$14,999
 \$15,000 to \$24,999
 \$25,000 to \$49,999
 \$50,000 to \$74,999
 \$75,000 to \$99,999
 \$100,000 to \$149,999
 \$150,000 or higher
 Don't know

School enrollment

23. Educational enrollment

Are you currently enrolled in school?

Yes

No

[SKIP TO Q25]

24. School

What kind of school do you attend?

Grades 1-12 →[If select, ask:]Specify grade: ____ [Accept grade 1-12]

Vocational, technical, or trade school →[If select, ask:] What kind? _____:

2-year junior or community college

4-year college

Other: _____

Religion

25. Religious preference

In terms of your religious preference, are you Protestant, Catholic, Jewish, Muslim, no religion, or something else?

Protestant

Catholic

Jewish

Muslim

Something else: _____

No religion

26. Religion - attendance

How often do you usually attend religious services?

Several times
a week

Once a week

A few times
a month

Once a month

Less than once
per month

Never

27. Religion - daily

Please let us know if you agree with the following statements.

You employ religious or spiritual beliefs as a basis for how to act and live on a daily basis.

Strongly disagree

Disagree

Neutral

Agree

Strongly agree

28. Religion – Bible

The Bible is God's word and everything happened or will happen pretty much as it says.

Strongly disagree

Disagree

Neutral

Agree

Strongly agree

My religion is not based on the Bible

Birth History

29. Times given birth

In our first survey, you told us that you have given birth [PRELOAD ANSWER TO SCREEN Q16] times. Is that right?

Yes

[SURVEY FILLS in Q30 with SCREEN Q16 ANSWER and SKIP TO Q31]

No

30. CORRECTED Times given birth

What is the correct number of times that you have given birth?

___ [Integer 0-10]

31. Times pregnant

How many times have you ever been pregnant? (If you are pregnant today, please count it.)

___ [Integer 0-20]

32. Times miscarriage

How many times have you had a miscarriage or stillbirth?

___ [Integer 0-20]

33. Times abortion

How many times have you ever had an abortion? (If you are having an abortion today, please count it.)

___ [Integer 0-20]

34. Age at menses

How old were you when you had your first period (menses, menstrual period)?

___ [Integer 8-20] [SKIP TO Q36]
Don't know

35. Age at first menses guess

If you're not sure, can you give us your best guess? About how old do you think you were when you had your first period?

Before age 12
Age 12-13
Age 14-15
Age 16-17
Age 18
Older than age 18

36. Age at first sex

How old were you the first time you had sexual intercourse? Sexual intercourse is when a man puts his penis into a woman's vagina.

Never had sexual intercourse [SKIP TO Q43]
___ [Integer 0-35] [SKIP TO Q38]
Don't know

37. Age at first sex guess

If you're not sure, can you give us your best guess? About how old do you think you were when you first had sexual intercourse?

Before age 15
Age 15-17
Age 18-19
Age 20-21
Age 22-25
Age 25 or older

Child Information

38. Number co-resident children

How many of the children you have given birth to have lived with you?

___ [INTEGER 0- ANSWER Q30]

39. Child information

Earlier you told us that these are your children. Is this list complete and correct? *As a reminder, we will keep this information strictly confidential.*

[PRINT INFORMATION on names and dob FROM CONSENT FORM]

Yes [SKIP TO Q42] No

40. Update child roster

Please update this information. *As a reminder, we will keep this information strictly confidential.*

[PRINT INFORMATION ON NAMES AND DOB FROM CONSENT FORM AND ALLOW FOR CHANGES]

41. Reconfirm child information

Is this list complete and correct? *As a reminder, we will keep this information strictly confidential.*

[PRINT INFORMATION on names and dob FROM Q40]

Yes No [SKIP TO Q40]

42. Add child POB

Will you also add the city/town and state where each child was born? *As a reminder, this information allows us to collect your children's administrative records. We will keep this information strictly confidential.*

[PRINT INFORMATION on names and dob FROM Q40 AND ALLOW FOR COUNTRY, STATE AND CITY OF BIRTH]

Birth control and healthcare access

43. Usual place of care

Is there a particular doctor's office, clinic, health center, or other place that you usually go if you are sick or need advice about your general health?

Yes

No

44. Have usual place for birth control

Is there a particular doctor's office, clinic, health center, or other place that you usually go, if you need contraception (services or methods for avoiding or delaying pregnancy)?

Yes

No

[SKIP TO Q46]

45. Usual place for birth control

Where do you usually go if you need contraception (services or methods for avoiding or delaying pregnancy)?

Planned Parenthood

Health Center

Doctor's office

Pharmacy

Other: _____

46. Delay in care

In the last 12 months, have you delayed getting medical care, tests, or treatments you or a doctor believed necessary?

- Yes No
 [SKIP TO Q50]

47. Reason delayed medical care

What is the reason you delayed getting medical care, tests, or treatments that you or a doctor believed necessary? (Choose all that apply.)

- Could not afford it [IF YES, ASK Q48]
- Did not have time [IF YES, ASK Q49]
- Could not get transportation [SKIP TO Q50]
- Did not know where to go [SKIP TO Q50]
- A doctor or provider refused to give me services [SKIP TO Q50]
- Partner, family member, or a friend prevented me from seeking care [SKIP TO Q50]
- Other: _____ [SKIP TO Q50]

48. Reason medical care -Afford

Why were you unable to afford care? (Choose all that apply.)

- Insurance company would not approve/cover/or pay for care
- Doctor refused to accept family's insurance plan
- Did not have insurance
- Could not afford insurance co-pay
- Other: _____

49. Reason medical care-Time

Why did you not have time to get care? (Choose all that apply.)

- Could not get child care
- Could not take time off work or school
- Too many other things to do
- Services take too long or require many visits
- Other: _____

50. Delay in birth control

In the last 12 months, have you delayed getting contraception (services or methods to help you avoid or delay pregnancy)?

- Yes No
 [SKIP TO Q54]

51. Reason delayed birth control

What is the reason you delayed getting contraception (services or methods to help you avoid or delay pregnancy)? (Choose all that apply.)

- Could not afford it [IF YES, ASK Q52]
- Did not have time [IF YES, ASK Q53]
- Could not get transportation [SKIP TO Q54]
- Did not know where to go [SKIP TO Q54]
- A doctor or provider refused to give me services [SKIP TO Q54]
- Partner, family member, or a friend prevented me from getting birth control [SKIP TO Q54]
- Other: _____ [SKIP TO Q54]

52. Reason delay birth control – could not afford

Why could you not afford to get contraception (services or methods to help you avoid or delay pregnancy)? (Choose all that apply.)

- Insurance company would not approve/cover/or pay for care
- Doctor refused to accept family's insurance plan
- Did not have insurance
- Could not afford insurance co-pay
- Other: _____

53. Reason delay birth control – time

Why did not you have time to get contraception (services or methods to help you avoid or delay pregnancy)? (Choose all that apply.)

- Could not get child care
- Could not take time off work or school
- Too many other things to do
- The services take too long or require many visits
- Other: _____

Plans for the future

54. Positive Desire To Have A Baby

As you know, getting pregnant and having a baby is a big event, one that has a lot of consequences. Most people have some positive and some negative feelings about getting pregnant and having a child. For this reason we are going to ask you about how much you *want* to get pregnant and how much you want to *avoid* getting pregnant.

How much do you want to get pregnant in the next 12 months?

Want to get pregnant:

Not at all  Extremely

Don't know

55. Negative Desire To Have Baby

How much do you want to avoid getting pregnant in the next 12 months?

Want to *avoid* getting pregnant:

Not at all  Extremely

Don't know

56. Coombs Scale A

The number of children people expect to have and want to have are not always the same.

If you could have just the number you want, what number of children would you want to have when your family is completed?

____ [Integer 0-20]

If 0 or Don't know [SKIP TO Q59]

57. Coombs Scale B

Now, we would like to know how you feel about some other possible family sizes.

If you could not have [Q56], would you want to have [Q56 - 1] or [Q56 + 1] children?

[Q56 - 1] [SKIP TO Q59 if [Q56 - 1]==0]

[Q56 + 1]

Don't know [SKIP TO Q59]

58. Coombs Scale C

[IF Q57 < Q56]: And if you did not have [Q57], would you rather have [Q57-1] or [Q57+2]?

[IF Q57 > Q56]: And if you did not have [Q57], would you rather have [Q57-2] or [Q57+1]?

59. Don't know Number of Children Expect To Have

Sometimes what people want and what they expect are different, because they are not able to do what they want.

How many children do you expect to have?

____ [Integer 0-20]

60. Desire Marriage?

[UNIVERSE: R is not currently married—SCREENER Q9≠married]: How much do you want to get married?

Not at all  Very much

61. Marital Status – Expectation to be Married at age 40

[UNIVERSE: all respondents]: What are the chances you will be married at age 40?

Very unlikely  Extremely Likely

62. Expectation to be in a committed relationship at age 40

[UNIVERSE: all respondents]: What are the chances you will have a long-term committed relationship or a commitment ceremony before age 40?

Very unlikely  Extremely Likely

63. Highest Degree Completed R Expects

As things now stand, what do you think is the highest degree or level of school you will complete by the time you are finished with school?

[MINIMUM DEGREE IN LIST SHOULD BE ANSWER TO SCREENER Q11; repeat options above minimum from ANSWERS TO SCREENER Q11]

64. Want To Go To School Future

How much do you want to enroll in school in the future?

Not at all _____ Very much

65. Does R Want To Work Outside Home At Age 40?

Now I would like to ask you about your future plans.

When you are age 40, about how many hours per week would you like to be working for pay?

_____ [Integer 0-99]
0 [SKIP TO Q68]

66. Kind of Job At Age 40

When you are age 40, what kind of job you would like to be doing?

Same as current job [SKIP TO Q68]

Some other job

Caring for family (not working for pay) [SKIP TO Q68]

Other

67. Occupation Aspiration At Age 40

When you are age 40, what other kind of job would you like to be doing?

68. Expected Ability To Achieve Occupation Aspiration At Age 40

When you are age 40, what do you are the chances you will be doing the job you would like to be doing?

Very unlikely  Extremely Likely

Childhood environment

69. Nativity

Where were you born?

In the U.S. [SKIP TO Q70]

In another country

70. Other Country

In which country were you born?

Country: _____ [SKIP TO Q72]

71. US town/city state

Where in the U.S. were you born?

City/town: _____

State: _____ [use scrolldown menu]

72. Most Of The Time Lived With

With whom did you live for the most of the time when you were growing up? (Choose all that apply.)

Biological mother

Biological father

Step-mother

Step-father

Adoptive mother

Adoptive father

Grandmother

Grandfather

Other relative(s)

Foster mother

Foster father

Institution

73. Mother Education

[ASK IF Q72=Biological mother, step mother, foster mother, or grandmother]: What is the highest level of education your [mother/step-mother/foster mother/grandmother] completed?

- Less than high school
- High school diploma or GED
- Some college
- Bachelor's degree or more
- Don't know

74. Biological Parents Married

Were your biological parents married to each other at the time you were born?

- | | | |
|--------------------------|--------------------------|--------------------------|
| Yes | No | Don't know |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

75. Number of Biological Mother's Children

How many children did your biological mother have?

- _____ [Integer 1-20]
Don't know

76. Biological Mother's Age At First Birth

How old was your biological mother when she had her first child?

- Less than 18 years
- 18-19 Years
- 20-24 Years
- 25-29 Years
- 30 or older
- Don't know

77. Childhood Financial Security

When you were growing up, how difficult was it for your family financially?

Not at all _____ Very much

78. Parents Own Home

When you were growing up, did your parents or guardians own their own home?

Yes No Don't know

79. Receive Public Assistance

When you were growing up, did your family ever receive government benefits, like food stamps (SNAP), welfare (TANF, AFDC), WIC, Medicaid, or Social Security?

Yes No Don't know

80. Childhood Library Card

When you were growing up, did you or anyone else living with you have a library card?

Yes No Don't know

Attitudes and Beliefs about Contraception

Now we would like to get your opinions on a few things about contraception. By “contraception,” we mean *anything that can help avoid or delay getting pregnant* (for example: birth control pills, shots, implants, IUDs, condoms, etc.).

81. Difficult to find time

It is difficult to find the time to go to a doctor’s appointment to get contraception.

Strongly disagree  Strongly agree

82. Birth Control Is Expensive

In general, contraception is too expensive to buy.

Strongly disagree  Strongly agree

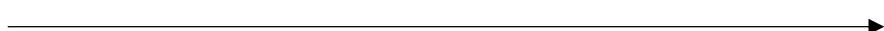
83. Too Much Planning To Have Birth Control

It takes too much planning ahead of time to use contraception when you’re going to have sex.

Strongly disagree  Strongly agree

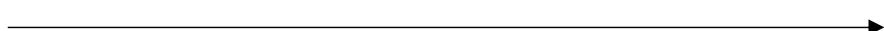
84. Birth Control Is A Hassle

In general, contraception is too much of a hassle to use.

Strongly disagree  Strongly agree

85. Birth Control Makes You Sick

Using contraception is likely to make a woman feel sick.

Strongly disagree  Strongly agree

86. Birth Control Interferes With Sexual Enjoyment

Using contraception interferes with sexual enjoyment.

Strongly disagree  Strongly agree

87. Condom A Sign Of Mistrust

If a woman asks her partner to use a condom, he will think that she does not trust him.

Strongly disagree  Strongly agree

Relationship quality

UNIVERSE: Screen question Q9 ≠ "Not in a relationship". If screen question Q9 = "Not in a relationship", skip to Q102. If screen question Q9 ≠ "Not in a relationship", ask:

[if baseline survey date=screen date: Earlier today] / [if baseline survey date >screen date: When first filled out our survey], you told us that you were _____ [Screen question Q9 answer≠ "Not in a relationship": We would like to ask you a few questions about your partner.

88. Time with Partner

During the past four weeks, have you and that partner spent a lot of time together?

Yes No

89. Exclusive Relationship

Have you and that partner ever agreed to have a special romantic relationship ONLY with each other, and no one else?

Yes No

90. Partner Desire Pregnancy

How much do you think that partner wants you to get pregnant during the next 12 months?

Not at all  Extremely

91. Disrespectful Treatment

In the past 4 weeks, has *anyone* you were dating or going out with:

Sworn at you, called you names, insulted you, or treated you disrespectfully?

Yes No

92. ViolentThreat

Threatened you with violence?

Yes No

93. Violent Treatment

Pushed you, hit you, or threw something at you that could hurt?Yes No

94. Insist Sex

Insisted on having sex with you when you did not want to?

Yes No

95. Threaten to Make Have Sex

Used threats to make you have sex with him?

Yes No

96. Used Force to Make have Sex

Used force (hitting, holding down, using a weapon) to make you have sex with him?

Yes No

97. Told Not Use Birth Control

If SCREEN Q10=Yes, Man: Told you not to use any birth control (like the pill, shot, ring, etc.)?

Yes No

98. Taken Away Birth Control

If SCREEN Q10=Yes, Man: Taken your birth control (like pills) away from you or kept you from going to the clinic to get birth control?

Yes No

99. Force Sex No Condom

If SCREEN Q10=Yes, Man: Made you have sex without a condom so you would get pregnant?

Yes No

100. Taken Off Condom

If SCREEN Q10=Yes, Man: Taken off the condom while you were having sex, so you would get pregnant?

Yes No

101. Put Holes in Condom

If SCREEN Q10=Yes, Man: Put holes in the condom or broken the condom on purpose so you would get pregnant?

Yes No

SF-12v2

102. Satisfaction with life

Overall, how satisfied are you with life as a whole these days?

Least satisfied
▶
 Most satisfied
 0 10
 _____ [Scale 0-10]

103. General health

In general, would you say your health is:

Poor Fair Good Very good Excellent

The following questions are about activities you might do during a typical day. Does your health now limit you in these activities? If so, how much?

104. Health: moderate activities

Moderate activities, such as moving a table, pushing a vaccum cleaner, bowling or playing golf?

No, not limited at all Yes, limited a little Yes, limited a lot

105. Health: climbing stairs

Climbing several flights of stairs

No, not limited at all Yes, limited a little Yes, limited a lot

During the past 4 weeks, how much of the time have you had any of the following problems with your work or other regular daily activities as a result of your physical health?

106. Physical health problems: Accomplished less than you would like

Accomplished less than you would like

None of the time A little of the time Some of the time Most of the time All of the time

107. Physical problems: Work less careful

Were limited in the kind of work or other activities

None of the time A little of the time Some of the time Most of the time All of the time

During the past 4 weeks, how much of the time have you had any of the following problems with your work or other regular daily activities as a result of any emotional problems (such as feeling depressed or anxious)?

108. Emotional problems: Accomplished less than you would like

Accomplished less than you would like

None of the time A little of the time Some of the time Most of the time All of the time

109. Emotional problems: Work less careful

Did work or other activities less carefully than usual

None of the time A little of the time Some of the time Most of the time All of the time

110. Pain interfere

During the past 4 weeks, how much did pain interfere with your normal work (including both work outside the home and housework)?

Not at all A little bit Moderately Quite a bit Extremely

These questions are about how you feel and how things have been with you during the past 4 weeks. For each question, please give the one answer that comes closest to the way you have been feeling. How much of the time during the past 4 weeks...

111. Calm and peaceful

Have you felt calm and peaceful?

None of the time A little of the time Some of the time Most of the time All of the time

112. Lots of energy

Did you have a lot of energy?

None of the time A little of the time Some of the time Most of the time All of the time

113. Downhearted

Have you felt downhearted and depressed?

None of the time A little of the time Some of the time Most of the time All of the time

114. Health interfere with social activities

During the past 4 weeks, how much of the time has your physical health or emotional problems interfered with your social activities (like visiting friends, relatives, etc.)?

None of the time A little of the time Some of the time Most of the time All of the time

Fatalism

How much do you agree with the following statements?

115. Things Happen to Me

In life, things just seem to happen to me.

Strongly disagree  Strongly agree

116. Pregnancy Should Be Planned

Pregnancy is something that should be planned.

Strongly disagree  Strongly agree

117. Pregnancy Happens When Your Time

It doesn't matter whether you use birth control or not; when it is your time to get pregnant, it will happen.

Strongly disagree  Strongly agree

118. Pregnancy Blessing

Every pregnancy is a blessing.

Strongly disagree  Strongly agree

Last screen for respondents who complete the survey:



M-CARES

MICHIGAN CONTRACEPTIVE ACCESS,
RESEARCH AND EVALUATION STUDY

Thank you so much for participating in this survey! The information from this study will be used to understand how to improve women's and family's lives.

[If data of screening survey=date of baseline survey]: Please return your tablet to the interviewer and you will receive \$60 in cash.

[If data of screening survey<date of baseline survey]: You will receive \$40 for taking this survey. If you are in a Planned Parenthood clinic, we will give you the \$40 in cash. If you are taking this survey outside of the clinic, the money will be mailed to you as a gift card.

We thank you in advance for taking time to take future surveys.

Please contact us if you have any questions about the M-CARE study. You can call us toll-free at

1-844-864-8258

or email us at m-carestudy@umich.edu.

For study updates, visit <http://sites.lsa.umich.edu/m-carestudy>.

For respondents who do not complete the survey:



M-CARES

MICHIGAN CONTRACEPTIVE ACCESS,
RESEARCH AND EVALUATION STUDY

Thank you so much for participating in this survey! The information from this study will be used to understand how to improve women's and family's lives.

We estimate you have XXXX minutes left to complete the survey.

To continue where you left off, click [\[here.\]](#)

If you need to finish at another time, please log back in at this [\[XXXXXX\]](#) using your VIN [\[list\]](#) (also on your M-CARES card) to complete it.

Please contact us if you have any questions about the M-CARE study. You can call us toll-free at

1-844-864-8258

or email us at m-carestudy@umich.edu.

For study updates, visit <http://sites.lsa.umich.edu/m-carestudy>.

Consent Form for Participating in the Michigan Contraceptive Access, Research, and Evaluation Study (M-CARES)

We invite you to be part of the Michigan Contraceptive Access, Research, and Evaluation Study (M-CARES). M-CARES will help women get better contraceptive methods, if they want them, to avoid and delay pregnancy. The University of Michigan is doing this study. The study is paid for by the Laura and John Arnold Foundation. We are inviting around 5,000 women between the ages of 18 and 35 to participate in M-CARES.

Participation is voluntary

This form provides important information about participating in a research study. A research study is something you volunteer for. You can choose not to take part in this research study or agree to take part now and change your mind later. Whatever you decide it will not be held against you. Your decision will not affect your ability to receive care at Planned Parenthood. You have the right to take your time in making decisions about participating in this study. If you have any questions about M-CARES or this form, please ask us. If you decide to participate in this study, you will be asked to provide an electronic signature.

What you can expect if you participate

If you agree to be part of this study, a computer will choose if you will receive a gift card today. One half of women who participate will be offered a gift card of up to \$[XXX, varies by pay scale] to be used for contraception at any PPMI clinic, today or within the next 100 days.

Study participants can also receive up to \$160 for taking surveys. We will ask questions about your life, including health and well-being, birth control use, pregnancies, education, work, childhood, relationships, sexual activity, your children (if any), plans for the future, and the use of public programs. The following surveys will be sent by email, text, mail, and/or telephone:

1. A 25-minute survey today (\$60) or at another convenient time (\$40).
2. Two more 30-minute surveys over the next 5 years (\$50 each). These surveys will be sent in short pieces at different times.

We also ask you to provide your full legal name, date of birth, social security number, contact information, and the names of people who know how to reach you. We will only use this information to contact you in the future and gather administrative records about you, your children, and other individuals appearing on administrative records from private and government agencies. We will look at these records going back 20 years and going forward 20 years into the future.

We might re-contact you in the future, to ask if you are interested in a follow-up study. At that time you will be able to say no, if you choose.

Confidentiality

Your privacy is very important to us. M-CARES will take steps to keep your information confidential. The researchers will enter the study data on a password-protected computer in an encrypted file. We will keep your information for at least 25 years. We plan to publish the results of this study, but we will not publish any information that would identify you or a family member. We will not share your name or identity with researchers who are not part of this study. To safeguard the security and confidentiality of your information, some people other than M-CARES researchers may need to see study records: people who work for organizations that make sure

our research is done safely and properly, such as the University of Michigan and government and private agencies who have your administrative data. They will also protect your privacy.

Because this study pays more than \$100, the University of Michigan will collect your name, address, social security number and payment amount. This information will be safely stored and used for income tax reporting purposes only if your total payments from the University of Michigan are greater than \$600 in a calendar year (January through December). If you receive more than \$600 in payments from the University of Michigan in a calendar year, this information will be submitted to the Internal Revenue Service (IRS) for tax reporting purposes and an extra tax form (Form 1099) will be sent to your home. If you are a University of Michigan employee, your research payments are tracked separately and are not included as part of your payroll.

Benefits

If you are randomly selected to receive a PPMI gift card, you may benefit by having more money to spend on the contraception of your choice. If you do not receive a PPMI gift card, others may gain from what is learned in this study about the benefits of spending on reproductive health care.

Risks and discomforts

There is only minimal risk in taking part in this research. Sometimes, answering questions on the survey may be uncomfortable. You can choose not to answer a question or stop participating any time. You can also choose to revoke (take back) your permission for the use of your records at any time. The research team will take steps to make sure your data is protected from unauthorized access.

If you have any questions, please call or ask the interviewer or call the University of Michigan toll free at 1-844-864-8258 or email m-carestudy@umich.edu. The phones are answered Monday through Friday, 9:00 a.m. to 4:00 p.m. You may also contact the Project Director, Dr. Martha Bailey, at the University of Michigan: 734-647-6874. Please say you are calling about M-CARES.

If you have questions about your rights as a research participant, or wish to obtain information, ask questions or discuss any concerns about this study with someone other than the researchers, please contact the University of Michigan Health Sciences and Behavioral Sciences Institutional Review Board, 2800 Plymouth Rd. Building 520, Room 1169, Ann Arbor, MI 48109-2800, (734) 936-0933, or toll free, (866) 936-0933, irbhsbs@umich.edu.

Consent

Your signature below shows that you have read, or that an interviewer has read to you, the above information, and that you have had your questions about M-CARES answered. Your signature below also shows that you agree to participate in M-CARES. You may change your mind and revoke (take back) this Consent at any time, except to the extent that data has already been shared on the basis of this Consent. To revoke this Consent, you must email m-carestudy@umich.edu. You will also receive a copy of this form by email and, if you request it, a printed copy today.

I agree to participate in M-CARES.

Printed name Signature Date

Consent Form for Release of Administrative Records to the Michigan Contraceptive Access Research and Evaluation Study (M-CARES)

Administrative records combined with your survey answers to help us understand how M-CARES participants and their families are doing. The M-CARES study will help us learn how affordable contraception can help families.

We are asking for your permission to ask some government and private agencies for information about you and your family. (Your family includes your children and others appearing on your records).

The information we collect will be used only for research. We will keep your information for at least 25 years. We plan to publish the results of this study, but we will not publish any information that would identify you or a family member.

Here are some examples of the types of information we will ask agencies for:

- You and your family's school records, including scores on achievement tests, school absences, and grade repetition;
- You and your family's birth records from state vital statistics records;
- Records of how much money you and your family members earned from the Office of Tax Administration and the Census Bureau;
- You and your family's records from the criminal justice system, including motor vehicle violations or arrests for other reasons;
- You and your family's participation in TANF, Food Stamps (SNAP), or other public or government programs;

By signing this consent form, I agree to let M-CARES researchers use this information about me and my family.

- I understand that the University of Michigan will ask for information about me and my family from agencies including but not limited to those listed above.
- I understand that University of Michigan may send a copy of this form to authorize release of records for me and my family.
- I understand that I will sign this authorization only if I agree to do so. My participation is voluntary. I am NOT required to do this.
- The information from administrative records will be kept secure and private. I and my family will not be identified in any reports or materials. Records will be kept private as much as is allowed by federal, state, and local law. Some people other than M-CARES researchers may need to see these records to safeguard my security and confidentiality. These include people who work for organizations that make sure our research is done safely and properly, such as the University of Michigan and government and private agencies who have your administrative data. They will also protect my privacy.
- I understand that my family and I will not be paid for allowing records to be released to the research team.
- I understand that although we may not receive direct benefit from participation, others may gain from what is learned in this study.
- I may ask questions at any time and can expect truthful answers. I can ask the interviewer, or contact the Project Director, Dr. Martha Bailey, at the University of Michigan: (734) 647-6874.
- I will receive a copy of this form by email and, if I request it, a printed copy today.

Consent Form for Release of Protected Health Information to the Michigan Contraceptive Access Research and Evaluation Study (M-CARES)

Planned Parenthood of Michigan is required by law to protect your health information. By signing this consent form, you give permission to Planned Parenthood of Michigan (PPMI) to release your health information that identifies you to the M-CARES research study.

The health information that we may use for this research includes

- Visits to any of PPMI clinics: date of the visit, services obtained during the visit, payment method, the name of the clinic, insurance type billed for the visit, insurance amount billed for the visit.
- Health information, such as the date of your last menstrual period, diagnosis codes or results of a physical examination.

Your health information will be kept secure and private as much as is allowed by federal, state, and local law. You will not be identified in any reports. Some people other than M-CARES researchers may need to see these records to safeguard my security and confidentiality. These include people who work for organizations that make sure our research is done safely and properly, such as the University of Michigan and government and private agencies who have your administrative data. They will also protect your privacy.

Those persons who receive your health information may not be required by Federal privacy laws (such as the Privacy Rule) to protect it and may share your information with others without your permission, if permitted by laws governing them.

Your decision to release your health records will not affect your ability to receive services at PPMI.

You may change your mind and revoke (take back) this Authorization at any time, except to the extent that authorize Planned Parenthood of Michigan has already acted based on this Authorization. To revoke this Consent, you must email m-carestudy@umich.edu. You will also receive a copy of this form by email and, if you request it, a printed copy today.

If you decide not to sign this form, you will not be able to take part in M-CARES.

Statement of Consent

I confirm that I have read, or that an interviewer has read to me, the above information. Any questions I had were answered to my satisfaction. I am not waiving any of my legal rights by signing this consent form. My signature below shows that I agree to allow PPMI to release my health records to the M-CARES research team, led by researchers from the University of Michigan at 426 Thompson Street, Ann Arbor, MI 48104. This Authorization does not have an expiration date.

Signature

Date



Oral Script for Surveyor

Once the patient checks in, the surveyor will approach the patient and say:

- Hello, my name is [surveyor’s first name]. The University of Michigan is conducting a study to learn about how the cost of contraception affects women and families. This study is very important to help policymakers understand how clinics like Planned Parenthood matter for the women who use it.
- Have you already enrolled in M-CARES?
 - o [If patient says “yes”:] Thank you for participating!
 - o [If patient says “no”:] You could be eligible to be in the study if you are 18 to 35 years old and would have to pay yourself for contraceptives today. If you are eligible, the study will pay you for your time taking surveys and some participants could receive a gift card for free contraceptives at Planned Parenthood today or in the next 100 days.

If the patient says she is interested, the surveyor asks:

- Are you between the ages of 18 and 35?

If the patient says no, the surveyor says:

- Unfortunately, that means you are not eligible to participate. Thank you very much for your time.

If the patient says yes, the surveyor asks:

- Did you receive a M-CARES card when you signed in today? Can you please hand me the card?

If the business card has the following answers marked:

		Yes	No
Here for clinician visit? – Yes	Here for clinician visit?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Insurance used for visit today? – No	Has insurance?	<input type="checkbox"/>	<input type="checkbox"/>
Fee scale - 2/B, 3/C, 4/D, or 5/E	Insurance used for today’s visit?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	Fee scale:	<input type="checkbox"/>	<input checked="" type="checkbox"/>
		1/A	2/B
		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
		3/C	4/D
		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
		5/E	
	VID:		VD:
	Study conducted by UNIVERSITY OF MICHIGAN		

Then the surveyor says:

- Great. You could be eligible for the M-CARES study. Would you be willing to take a short survey to find out? It will take you about 5 minutes and we will reimburse you \$10 in cash for your time. [SURVEYOR ENTERS FEE SCALE IN TABLET AND HANDS TO PARTICIPANT].

If the business card notes fee scale 1 (i.e., contraceptive services free), insurance will cover today’s visit, or not here for clinician visit (i.e., they are not there for contraception), the surveyor says:

- It looks like you won’t have to pay for contraceptives today, so you are not eligible for the M-CARE study. If that doesn’t seem right, perhaps confirm this with the receptionist. Thank you very much for your time.