

# Contraceptive Choices for Reproductive Age Women at Methadone Clinics in Western North Carolina

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## Abstract

**Objectives:** To describe the preferences of women in methadone treatment for contraception and contraceptive counseling.

**Methods:** We conducted a voluntary, anonymous, incentivized, cross-sectional survey (35-item) of women at four methadone clinics in WNC. Data analysis was primarily descriptive.

**Results:** In all, 191 women completed surveys for a 77% response rate; the majority were white [183 (95.8%)] with a mean age of  $31.2 \pm 7.3$  years. Most had children [161 (84.3%)]; 69 (36.1%) women reported an unwanted pregnancy in their lifetime. We identified 148 (77.5%) with intact reproductive systems. Of the 148: 15 (10.1%) were pregnant; 58 (39.2%) reported consistent contraceptive use; 52 (35.1%) reported inconsistent or no use of contraception; and 23 (15.5%) reported planning a pregnancy. The unintended pregnancy rate among the 15 pregnant women was 66.7% (10). Among the 125 candidates for contraception, 59 (47.2%) desired long acting contraception (LARC) or sterilization; 91 (72.8%) desired contraceptive education or counseling.

**Conclusions:** Overall, 103 (82.4%) of the women could potentially benefit from a contraception intervention as they are not current contraception users, have expressed interest in switching methods, or may be interested in the convenience of co-located contraception service delivery. Furthermore, 23 (15.5%) women would benefit from preconception counseling and education about neonatal abstinence syndrome. We are negotiating ways to offer these services in methadone clinics.

**Key Words:** Contraception, Methadone, Medication maintenance therapy

## Introduction

Infants whose mothers use illicit drugs during pregnancy may be at an increased risk for multiple complications, including sudden infant death syndrome (SIDS), adverse neurodevelopmental outcomes, and neonatal mortality.<sup>1</sup> There is also a higher prevalence of intrauterine growth restriction, urogenital abnormalities, atypical cerebrovascular accidents, and necrotizing enterocolitis among infants exposed to illicit drugs in utero compared to otherwise healthy, term neonates.<sup>2</sup> Moreover, the 2010 rate of preterm birth (> 32 and < 37 weeks) was 27% among women using illicit drugs, while the overall national rate of preterm birth in 2014 was 11.8%.<sup>3,4</sup>

Many infants born to women using opiates or medication maintenance therapy (MMT) (e.g., methadone, buprenorphine) suffer from symptoms of withdrawal—a condition known as neonatal abstinence syndrome (NAS)—and require medical intervention. Whereas the uncomplicated term infant can be discharged from the hospital in 2 to 3 days, infants with neonatal abstinence syndrome requiring treatment can stay for up to 32 days.<sup>2,5</sup> The complications and financial impacts resulting from infant morbidity relating to substance abuse and NAS have placed a substantial burden on healthcare and child welfare systems, as well as on society at large.<sup>1,3,5-6</sup>

The number of infants born with neonatal abstinence syndrome continues to rise. In Western North Carolina (WNC), recent hospital reports demonstrate a 500% increase in the number of neonates born to mothers using illicit drugs or MMT over the past decade (unpublished data; Mission Hospital). To address

this serious epidemic, we convened a coalition designed to develop and implement regional responses. One of the main objectives outlined to reduce the incidence of NAS was the reduction of unintended pregnancies among women actively using opiates or MMT.

National rates of unintended pregnancy have ranged from 30-39% over the past three decades. From 2006-2010, an estimated 37.1% of pregnancies were unintended, and an additional 23.3% were mistimed.<sup>7</sup> Many women who use opiates or are on MMT do not wish to become pregnant, but a high number do not use contraception.<sup>8</sup> Among this population, the rate of unintended pregnancy is even higher than the national average; in 2011, 86% of pregnancies were unintended, with 34% reporting a mistimed pregnancy, 26% feeling ambivalent, and 27% reporting an unwanted pregnancy.<sup>9</sup>

Previous studies suggest multiple reasons why women who are not planning a pregnancy do not use contraception. Common reasons cited include misconceptions about fertility and pregnancy risk, and concerns about side effects.<sup>10</sup> Many women—especially low-income minority women—report negative experiences regarding contraception counseling, which they perceive as coercive and discriminatory.<sup>11</sup> In addition, negative experiences with healthcare providers may dissuade women from seeking services, while others do not have access to contraception that appropriately fits their lifestyle.<sup>12-13</sup>

Because women receiving MMT are required to attend treatment clinics on a regular basis, these clinics offer a unique opportunity to provide concurrent family planning services to women who may not otherwise seek contraception. To this effect, the CDC funded a three-year demonstration project from 1988-1991, which was designed to integrate family planning services and drug treatment programs in Philadelphia.<sup>13</sup> The project found that both drug treatment staff and patients preferred to have these services co-located onsite. Subsequently, other such models have been successfully implemented elsewhere.<sup>14-15</sup>

Many of the women being treated for opiate addictions who have given birth at our hospital are in need of family planning services to prevent subsequent unwanted pregnancies and adverse neonatal outcomes.<sup>16</sup> Considering the growing challenges faced by our region in caring for the increasing number of infants presenting with NAS, our coalition sought to prevent unwanted pregnancies by providing family planning services to women in addiction treatment clinics. Before implementing such a program, we wanted to know whether women would be amenable to receiving family planning services delivered by outside healthcare providers at their methadone clinics. Therefore, we invited participation in a voluntary survey to assess women's needs and desires for family planning services co-located in opiate addiction treatment facilities.

## Methods

### Study Design

We conducted a voluntary, anonymous, incentivized, cross-sectional survey at four of five local methadone clinics within 50 miles of our primary healthcare facility, the Mountain Area Health Education Center (MAHEC) Family Health Center in Asheville, North Carolina. Two researchers went to the methadone clinics in WNC and administered paper-pencil surveys over three months, from September to November of 2012. Survey administration was available in clinics for 1-2 days during dosing hours. We worked with the methadone clinic staff to target hours of dosing most utilized by working women and women with children.

Women were invited to participate in the survey at the clinic where they received treatment. Participants were told we were surveying women under the age of 50 years old who had not had a hysterectomy. If participants self-reported that they met these two criteria and were interested in completing a survey, we offered them one of two surveys: a survey for pregnant women (see Appendix A) or a survey for non-pregnant women (see Appendix B).

Survey packets included a patient information letter explaining the project, the 35-item survey, and a self-addressed envelope. Patients who accepted research packets were instructed to seal the survey in the

envelope when they were done, and to return it to the research staff. Patients returning a sealed envelope received a \$10 gift card to a local grocery store for their participation.

### Survey

Our 35-item survey was modeled after Heil et al.'s 2011 survey of unintended pregnancy in opioid abusing women,<sup>9</sup> Harding and Ritchie's 2002 interviews on contraceptive practices of women with opiate addiction,<sup>10</sup> and Versage et al.'s 2014 survey on contraceptive coercion.<sup>16</sup> Surveys included questions on a wide range of topics, including: socio-demographics; access to healthcare; pregnancy history; current sexual activity; current and future plans for contraception use; preferences for contraception counseling, and addiction treatment history (see Appendices). Also included for pregnant women was a multi-item questionnaire about pregnancy intention, the London Measurement of Unplanned Pregnancies (LMUP).<sup>17</sup> Women who were not pregnant were given a modified version of the LMUP.<sup>18</sup> In a section addressing special health considerations in planning for pregnancies (e.g., taking folic acid, smoking cessation, etc.), we added an option specifically about reducing MMT. The survey was also adjusted for reading level appropriateness, with a reading grade level of 5.8. Surveys were color coded by pregnancy status (pregnant or not pregnant).

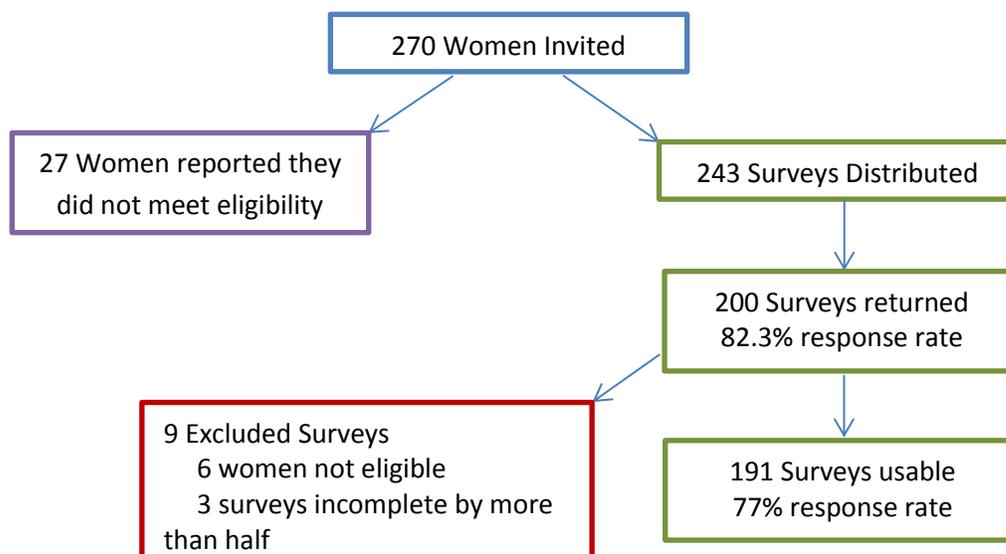
### Data Analysis

Data was aggregated to report participants' characteristics. Response data related to current contraception, desired contraception, and interest in contraceptive counseling was reported for pregnant women, women currently using birth control, women not currently using birth control, and all candidates for birth control. We excluded women intending to become pregnant. Long acting reversible contraception (LARC) included intrauterine devices (IUD) and implantable contraception devices. Data are reported as the frequency and percent of respondents per question response choice or the mean  $\pm$  the standard deviation.

### Results

Of the 270 women approached at the methadone clinics, 243 indicated they met eligibility requirements; 200 returned the survey, for a response rate of 82.3%. Of the completed surveys, we excluded nine: six of the women had undergone hysterectomy and 3 women who did not answer the majority of questions. In total, we analyzed 191 surveys (see Figure 1a).

**Figure 1a. Survey Participants' Response Rate**



### Participants' Socio-demographics and Treatment History

Of the 191 surveys analyzed, the modal age was 28 years. The average age was  $31.2 \pm 7.3$  years. Regarding race, 95.8% (183) of the respondents were white, and 4.2% (8) were minorities. The respondents' social and economic situations were varied, though the majority did not work currently and they had children (see Table 1).

Most respondents [72.3% (138)] did not have a primary care physician. However, most women [77% (147)] had either private or government insurance. The majority also reported this was their first episode of MMT; the average amount of time on MMT was  $24.5 \pm 31.6$  months.

**Table 1. Participants' Socio-demographic Characteristics and Treatment History, N = 191**

		N (%)
Ages (years)	19-25	45 (23.6)
	25-35	93 (48.7)
	36-50	48 (25.1)
	Not reported	5 (2.6)
Social Situation	Married	51 (26.7)
	Living with a Partner	50 (26.2)
	Separated, Divorced, Widowed	39 (20.4)
	Single	51 (26.7)
Has Children		161 (84.3)
Employment	Full time	39 (20.4)
	Part time	25 (13.1)
	Work and Attend school	7 (3.6)
	Attend school exclusively	18 (9.4)
	Disabled	15 (7.9)
	Unemployed	87 (45.5)
Education	Less than High school	42 (21.9)
	High school diploma or equivalent	62 (32.5)
	Post-secondary no degree	70 (36.6)
	College degree or more	15 (7.8)
	Not reported	2 (1.0)
Insurance	Medicaid	123 (64.4)
	Medicare	6 (3.1)
	Private insurance	18 (9.4)
	None	42 (22.0)
	Not reported	2 (1.0)
Smoking history	Current smoker	159 (83.2)
	Former smoker	18 (9.5)
	Non-smoker	14 (7.3)
First time in medication maintenance therapy		138 (72.3)
First time in addictions treatment		97 (63.0)

### Participants' Pregnancy History and Sexual Activity

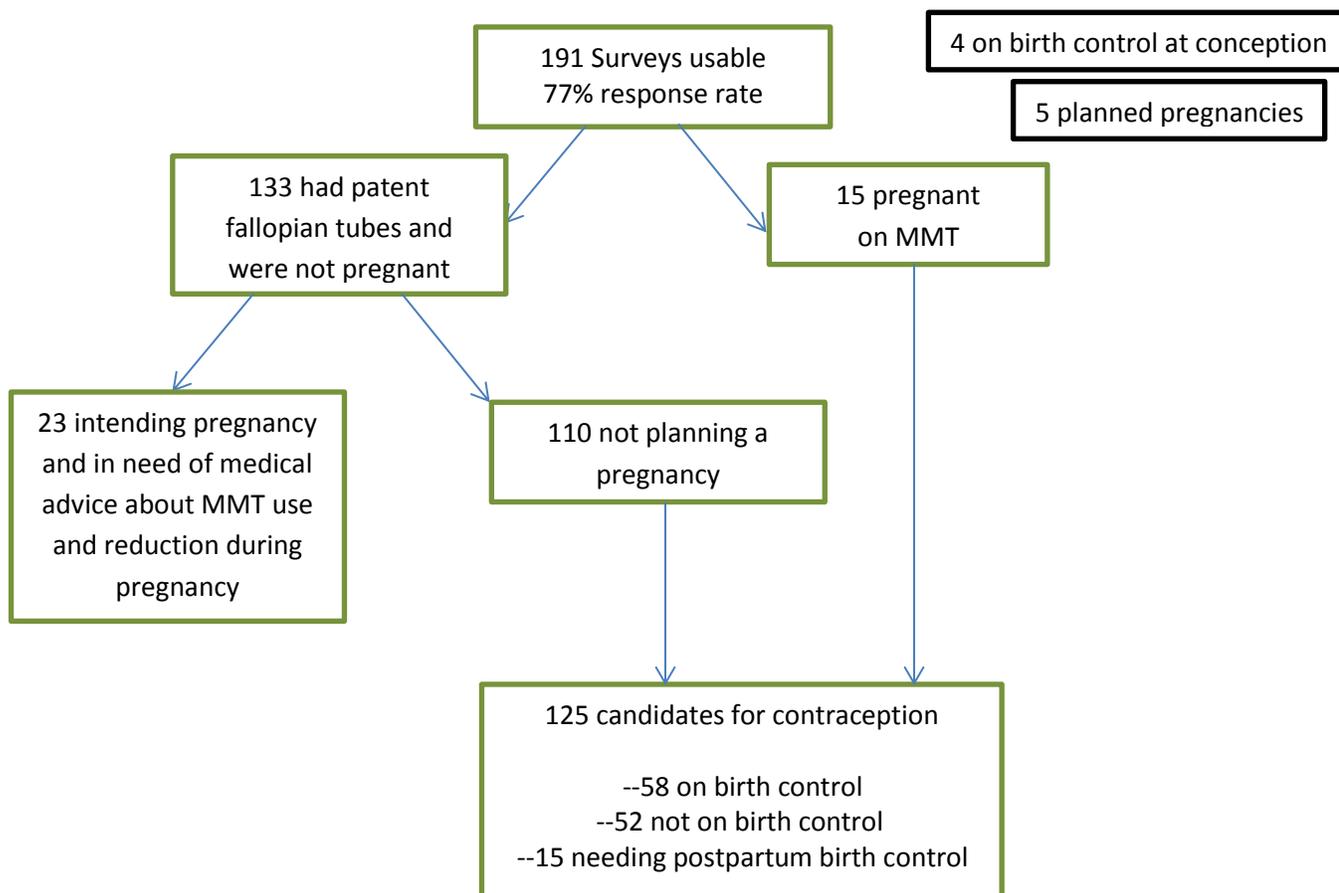
Of the 191 women, 36.1%(69) had an unwanted pregnancy during their lifetime, and of those women, 50.7% (35) women had a previous pregnancy termination (see Table 2). In all, 19.5% (37) women reported a previous pregnancy termination. Two women reported that they had wanted to be pregnant but chose to terminate the pregnancy. In all, 84.7 % (161) of the women had given birth previously.

**Table 2. Participants' Pregnancy History and Current Sexual Activity, N = 191**

	N (%)
How many times have you been pregnant?	
None	20 (10.5)
1-2	89 (46.6)
3-4	62 (32.5)
5-6	17 (8.9)
>6	2 (1.0)
Not reported	1 (0.5)
How many times have you given birth?	
None	29 (15.2)
1-2	118 (61.8)
3-4	37 (19.4)
5-6	6 (3.1)
Not reported	1 (0.5)
How many times have you been pregnant when you did <i>not</i> want to be?	
None	121 (63.4)
1	34 (17.8)
2-5	35 (18.3)
Not reported	1 (0.5)
How many elective abortions have you had?	
None	153 (80.1)
1	24 (12.6)
2-4	13 (6.8)
Not reported	1 (0.5)
How often are you currently sexually active with a man?	
Daily	26 (13.6)
Weekly	80 (41.9)
Monthly	37 (19.4)
Less than monthly	44 (23.0)
Not reported	4 (2.1)
Have you been on birth control since your last period?	
Yes	128 (67.0)
No	59 (30.9)
Not reported	4 (2.1)

Of those 191 women surveyed, 22.5% (43) of the women had already undergone bilateral tubal ligation (BTL). Overall, 55% (105) of the women reported using some type of non-permanent birth control at the time of the survey. Of the women who had patent tubes (no BTL), 69.6% (133) women were not pregnant and 7.8% (15) were pregnant at the time of the survey. For purposes of informing a possible intervention, we focused the rest our analysis on women with patent tubes (n = 148) and not planning a pregnancy (n = 23), who were eligible for contraception (n = 125) (See Figure 1b).

**Figure 1b. Survey Participation Flow Diagram from Response Rate through Analysis**



### Candidates for Contraception

Of the 125 women who were not planning a pregnancy or would be postpartum in the near future, 49.6% (62) of these women were birth control users, including 4 of the pregnant women for whom contraception failed. Of the 15 pregnant women, the unintended pregnancy rate was 66.7% (10).

Currently, 46.4% (58) of the candidates for birth control were using contraception. The remaining 53.6% (67) were all considered to be in need of contraception immediately or in the immediate postpartum.

We wanted to know what barriers to contraception existed among women not on birth control. In general, these 52 women reported the same barriers most women cite – the side effects 26.9% (14) and the costs 17.3% (9).

**Table 3. Reasons for Not Using Birth Control Consistently**

<b>What prevents women from using birth control consistently?</b>	<b>N = 52</b>
Side effects	14 (26.9)
Costs	9 (17.3)
Do not remember	4 (7.7)
Not sexually active with a man regularly	4 (7.7)
Health problems	3 (5.8)
Postpartum	3 (5.8)
No transportation	2 (3.8)
Nothing	2 (3.8)
IUD messed up and had to have it removed	1 (1.9)
New to area and do not have a doctor	1 (1.9)
No normal period	1 (1.9)
Did not answer question	8 (15.4)

Note. Abbreviations: IUD - Intra-uterine device.

Additionally, we surveyed what types of birth control methods were being used by the 58 women who reported currently using contraception: 39.7% (23) of the women had an intrauterine contraceptive device (IUD) and 6.9% (4) of the women had an implantable form of contraception. In all, 46.6% (27) of the women on birth control were using some form of a long acting, reversible contraception method (LARC; see Table 4).

**Table 4. Type of Birth Control Used Consistently**

<b>What type of birth control are you using consistently now?</b>	<b>N = 58</b>
Intra-uterine devise (IUD)	23 (39.7)
Implant	4 (6.9)
Depo-provera injection	7 (12.1)
Oral contraceptive pills (OCP)	10 (17.2)
Contraceptive ring	3 (5.2)
Condoms	5 (9.6)
Other (did not specify)	3 (5.2)
Did not answer	3 (5.2)

Note. Depo-provera - depot medroxyprogesterone acetate.

All candidates for contraception were asked what their ideal birth control method would be (see Table 5). The most common preference was to have a 5-year IUD [27.2% (35)]. The next most common choice was daily OCPs [16.8%, (21)]. Overall, 41.6% (52) of these women were interested in LARC. In total, 20% (25) women not currently using a LARC method were interested in obtaining a LARC method.

**Table 5. Preferred Type of Contraception for Future Use**

What type of birth control (BC) would you like to be on?	N = 52	N = 15	N = 58	N = 125
	Not pregnant & not on BC	Will need postpartum BC	Not pregnant & BC currently	Total candidates for BC
	n	n	n	n (%)
Permanent sterilization	3	3	1	7 (5.6)
10-year IUD	4	0	4	8 (6.4)
5-year IUD	7	2	25	34 (27.2)
3-year implantable contraception	4	2	4	10 (8.0)
3-month Depo-provera injection	8	3	5	16 (12.8)
Weekly contraceptive ring	2	3	2	7 (5.6)
Daily OCPs	10	2	9	21 (16.8)
A natural method	2	0	0	2 (1.6)
None	10	0	5	15 (12.0)
I don't know	2	0	3	5 (4.0)

Note. Abbreviations: BC – birth control; IUD – intra-uterine device; OCPs – oral contraception Pills; Depo-provera – depot medroxyprogesterone acetate.

Finally, we surveyed women to gauge their interest in various types of education and counseling about contraception (see Table 6). Women expressed the most interest in reading about birth control on their own (rated as “interested” to “very interested”), rather than attending a more formal education program, group birth control counseling, or one-on-one counseling.

**Table 6. Preferred Method for Birth Control Education and Counseling**

	N = 52	N = 15	N = 58	N = 125
	Not pregnant & not on BC	Will need postpartum BC	Not pregnant & BC currently	Total candidates for BC
	n	n	n	n (%)
An education program about birth control?	6	4	10	20 (16.0)
Reading about birth control on your own?	18	4	14	36 (28.8)
Group birth control counseling?	2	0	11	13 (10.4)
On-on-one birth control counseling?	8	2	12	22 (17.6)

Note. Abbreviations: BC – birth control.

### Discussion

Results from our survey of women in treatment at methadone clinics has provided greater context and critical data to better inform our coalition as we continue to lay the framework for implementing meaningful interventions throughout the region to prevent unwanted pregnancies and decrease the prevalence of NAS in newborns. Greater understanding of women’s desires for contraception, interest in educational programs and contraception counseling, and family planning needs can help us anticipate which programs might be most successful in meeting this goal.

More than one third of the 191 women we surveyed reported previous *unwanted* pregnancies. In 2008, the national *unwanted* pregnancy rate was 20%.<sup>19</sup> About 2 in 10 of the women surveyed had

undergone a pregnancy termination. By contrast, nationally, 3 in 10 women will have undergone an abortion by the time they are 45.<sup>20</sup> Thus, while fewer women seeking treatment in methadone clinics in WNC choose terminations, they have an overall higher rate of unwanted pregnancies.

Further, among the 15 women currently pregnant, two-thirds of the pregnancies were unintentional; four pregnancies resulted from contraceptive failures. Almost 1 in 2 women who were not planning a pregnancy were not using any birth control method – 52 women in all. Clearly there is some need among women in MMT in WNC for a contraception intervention.

Overall, many women expressed interested in using a LARC method whether via continuation of their current method, switching from a different method, or initiating use in the absence of any current method. This encouraged us to think it reasonable to institute better and easier access to LARC by delivering contraception at the WNC methadone clinics.

Additionally, 23 women were currently planning a pregnancy. Interestingly, women are not delaying childbearing during addiction treatment with MMT. We need to provide appropriate interconception counseling for women in MMT and optimal prenatal care for the women who do become pregnant while in MMT. Providing more information on neonatal abstinence syndrome as well as educating mothers about the best care for their infants remains important.

Of the 191 women we surveyed, 43 already had undergone bilateral tubal ligation. We had not anticipated such a large percentage of respondents to have already chosen relatively permanent sterilization. Our sample size was limited to the 125 women with patent tubes, not planning a pregnancy, or who would need contraception following delivery – those we identified candidates for contraception and who could benefit from a contraception intervention.

Further, we have no means to calculate 95% confidence intervals for the various percentages we report here. We could not ascertain how many women of childbearing age are in addictions treatment in WNC methadone clinics, and we could not determine an appropriate sample size for reasonable standard error of measure. We could not cover all hours of treatment availability over every day clinics were open, and we were unable to negotiate survey administration at one last regional clinic. Thus, some women were not given the opportunity to participate.

We had a very high response rate, owed in part to our participant incentive. Indeed, the incentive induced some women to misrepresent their eligibility requirements and perhaps others to begin a survey they did not complete. Further, we did encounter some disgruntled older women and a few men who considered their exclusion unfair, as it was not their fault they could not receive a gift card. For these reasons, the generalizability of our results is somewhat limited.

Regardless of the possible limitations of this survey, results have identified multiple avenues through which we might better provide contraception and engage patients in educational opportunities that best meet their needs and serve their interests. The feasibility of delivery of family planning services at addiction treatment clinics is being actively explored, as preventing even a small number of unintended pregnancies concurrent with opiate use or MMT could have far-reaching benefits. Ongoing study of possible occasions for patient engagement within this population will remain crucial as we continue to search for methods to prevent unintended pregnancies and reduce neonatal complications associated with maternal opiate use.

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**Disclosure:** None of the authors have a conflict of interest to disclose.

**Financial Support:** This study was underwritten by the MAHEC Center for Research.

**Author's Contributions:**

Ginger Poulton, MD: Survey design, interpretation of data, drafting and critical revision of article

Anna Beth Parlier, BS: Data collection, management, and analysis, and critical revision of article

Kacey Ryan Scott, MLIS: Drafting and critical revision of article

E. Blake Fagan, MD: Conceptualization, interpretation of data, critical revision of article

Shelley L. Galvin, MA: Mentoring of all aspects of the project.

**Previous Presentation:** Paper presented at the 20<sup>th</sup> Annual MAHEC Research Day, Asheville, NC, May 17, 2013; Winner of the 2013 MAHEC Research Day Audience Award.

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(NON-PREGNANT) <b>Have you been using birth control since your last period?</b>							
YES ↓	NO ↓						
Circle type of birth control used since your last period:	Do you want to be on birth control?						
IUD Depo Oral Contraceptive Pills Nuvaring Implanon Diaphragm Condoms Withdrawal Rhythm or other Natural method  Other: _____	<table border="1"> <thead> <tr> <th style="background-color: yellow;">YES</th> <th style="background-color: yellow;">NO</th> <th style="background-color: yellow;">Maybe</th> </tr> </thead> <tbody> <tr> <td colspan="3"> <b>What prevents you from using birth control? - Circle all that apply:</b>   <input type="checkbox"/> Trying to get pregnant  <input type="checkbox"/> Cannot afford to buy  <input type="checkbox"/> Do not have transportation to buy  <input type="checkbox"/> Religious beliefs do not allow use  <input type="checkbox"/> Health problems do not allow use  <input type="checkbox"/> Quit using because of side effects  <input type="checkbox"/> Not allowed to use by partner  <input type="checkbox"/> Partner refused to use  <input type="checkbox"/> Partner took out or threw away  <input type="checkbox"/> Partner threatened to leave if no baby  <input type="checkbox"/> Do not always remember to use  <input type="checkbox"/> Nothing prevents me from using birth control             Other: _____         </td> </tr> </tbody> </table>	YES	NO	Maybe	<b>What prevents you from using birth control? - Circle all that apply:</b>  <input type="checkbox"/> Trying to get pregnant <input type="checkbox"/> Cannot afford to buy <input type="checkbox"/> Do not have transportation to buy <input type="checkbox"/> Religious beliefs do not allow use <input type="checkbox"/> Health problems do not allow use <input type="checkbox"/> Quit using because of side effects <input type="checkbox"/> Not allowed to use by partner <input type="checkbox"/> Partner refused to use <input type="checkbox"/> Partner took out or threw away <input type="checkbox"/> Partner threatened to leave if no baby <input type="checkbox"/> Do not always remember to use <input type="checkbox"/> Nothing prevents me from using birth control  Other: _____		
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If you would like to start birth control or change the type of birth control you are using, what type of birth control would you prefer?

- |   |  |
|---|--|
| <input type="checkbox"/> 10-year IUD (Paragard)                     | <input type="checkbox"/> Weekly NuvaRing   |
| <input type="checkbox"/> 5-year IUD (Mirena)                        | <input type="checkbox"/> Daily birth control pills   |
| <input type="checkbox"/> 3-year Implanon                            |  |
| <input type="checkbox"/> 3-month Depo shots                         | <input type="checkbox"/> Permanent sterilization (Ex. Tubes tied for woman/ Vasectomy for men) |
| <input type="checkbox"/> Barrier method for woman (Ex. diaphragm)   | <input type="checkbox"/> Barrier method for man (Ex. condoms)                                  |
| <input type="checkbox"/> A natural method (Ex. tracking your cycle) | <input type="checkbox"/> None  |
| <input type="checkbox"/> I don't know                               |  |

How interested are you in...	Not at all interested			Very interested	
...an education program on birth control?	1	2	3	4	5
...reading about birth control on your own?	1	2	3	4	5
...group birth control counseling?	1	2	3	4	5
...one-on-one birth control counseling?	1	2	3	4	5

**The next questions ask about your treatment history.**

Is this your first time in medication-assisted treatment? YES NO  
 If NO, how many times have you been in medication-assisted treatment before? \_\_\_\_\_ total times



(PREGNANT) <b>Were you using birth control when you got pregnant?</b>																																																	
YES ↓	NO ↓																																																
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Have you discussed birth control, for after your baby is born, with your doctor? YES NO I don't know

What type of birth control would you like to be on after your baby is born?

- |  |   |
|--|---|
| _____ 10-year IUD (Paragard)                     | _____ Weekly NuvaRing   |
| _____ 5-year IUD (Mirena)                        | _____ Daily birth control pills   |
| _____ 3-year Implanon                            |   |
| _____ 3-month Depo shots                         | _____ Permanent sterilization (Ex. Tubes tied for woman/ Vasectomy for men) |
| _____ Barrier method for woman (Ex. Diaphragm)   | _____ Barrier method for man (Ex. condoms)                                  |
| _____ A natural method (Ex. tracking your cycle) |   |
| _____ I don't know                               | _____ None  |

How interested are you in...	Not at all interested			Very interested	
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**The next questions ask about your treatment history.**

Is this your first time in medication-assisted treatment? YES NO

If NO, how many times have you been in medication-assisted treatment before? \_\_\_\_\_ total times

How old were you the first time you entered into medication-assisted treatment? \_\_\_\_\_ years old  
How long have you been in medication-assisted treatment this time? \_\_\_\_\_ months  
How many times have you been in other addiction treatment? \_\_\_\_\_ total times  
(PREGNANT)

### Pregnancy Intention Questions

**Below are some questions that ask about your circumstances and feelings around the time you became pregnant. Please think of your current (or most recent) pregnancy when answering the questions below.**

1. In the month that I became pregnant.....

\_\_\_\_\_ I/we were not using birth control.

\_\_\_\_\_ I/we were using birth control, but not on every occasion.

\_\_\_\_\_ I/we always used birth control, but knew that the method had failed

(i.e., broke, moved, came off, came out, not worked, etc) at least once.

\_\_\_\_\_ I/we always used birth control.

2. In terms of becoming a mother (first time or again), I feel that my pregnancy happened at the.....

\_\_\_\_\_ right time

\_\_\_\_\_ ok, but not quite right time

\_\_\_\_\_ wrong time

3. Just before I became pregnant.....

\_\_\_\_\_ I intended to get pregnant \_\_\_\_\_ my intentions kept changing

\_\_\_\_\_ I did not intend to get pregnant

4. Just before I became pregnant.....

\_\_\_\_\_ I wanted to have a baby \_\_\_\_\_ I had mixed feelings about having a baby

\_\_\_\_\_ I did not want to have a baby

In the next question, we ask about your partner – this might be (or have been) your husband, a partner you live with, a boyfriend, or someone you've had sex with once or twice.

5. Before I became pregnant.....

\_\_\_\_\_ My partner and I agreed that we would like me to be pregnant.

\_\_\_\_\_ My partner and I had discussed having children together, but hadn't agreed for me to get pregnant.

\_\_\_\_\_ My partner and I agreed that we would not like me to get pregnant.

\_\_\_\_\_ We never discussed having children together.

6. Before you became pregnant, did you do anything to improve your health in preparation for your pregnancy?

\_\_\_\_\_ Took folic acid

\_\_\_\_\_ Tried to be a healthy weight

\_\_\_\_\_ Stopped or cut down smoking

\_\_\_\_\_ Tried to be more physically active

\_\_\_\_\_ Stopped or cut down drinking alcohol

\_\_\_\_\_ Ate healthier

\_\_\_\_\_ Stopped or cut down the dose of my medication treatment \_\_\_\_\_ Sought medical advice

\_\_\_\_\_ Took some other action: \_\_\_\_\_

\_\_\_\_\_ I did not do any of the above before my pregnancy.

Once you learned you were pregnant, how did you feel about it? Circle all that you felt:

Angry Happy Scared Confused Excited Worried Sad Didn't care Other: \_\_\_\_\_

How do you feel about having a baby at this time?

Very glad

Somewhat glad

A little unhappy

Very unhappy

I don't know