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Contraceptive use by disability status: new national estimates from the National Survey of Family Growth

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Abstract

Objective—To determine population-based estimates of use of contraception among women 15 – 44 years of age in the United States by disability status.

Study Design—We examined the relationship between disability status and use of contraception among 7,505 women at risk of unintended pregnancy using data from the 2011-2015 National Survey of Family Growth (NSFG).

Results—After examining the full distribution of contraceptive method use by disability status, we found that disability status was significantly associated with differences in 3 categories of use: female sterilization, the oral contraceptive pill, and non-use of contraception. Multivariate analysis shows that use of female sterilization was higher among women with cognitive disabilities (aOR = 1.54, 95% CI = 1.12-2.12), and physical disabilities (aOR = 1.59, CI = 1.08-2.35), than for those without disabilities, after controlling for age, parity, race, insurance coverage, and experience of unintended births. Use of the pill was less common among women with physical disabilities than for those without disabilities (aOR = 0.57, CI = 0.40-0.82). Finally, not using a method was more common among women with cognitive disabilities (aOR = 1.90, CI = 1.36-2.66).

Conclusions—Self-reported cognitive disabilities (“serious difficulty concentrating, remembering, or making decisions”), as well as physical disabilities, are significant predictors of contraceptive choices, after controlling for several known predictors of use.

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Implications—The patterns found here suggest that screening for self-reported cognitive and physical disabilities may allow health care providers to tailor counseling and sex education to help women with disabilities prevent unintended pregnancy and reach their family size goals.

Keywords

Family planning; Disability; National Survey of Family Growth; Disparity

1. Introduction

Women with disabilities constitute a substantially underserved, hard-to-reach, and growing population in the U.S.[1-10] They are more likely than women without disabilities to experience poverty, low-income, and unemployment. [2-4] According to an analysis of data from the 2005 Survey of Income and Program Participation, 11.7% of U.S. civilian, noninstitutionalized women of childbearing age live with a disability. [5, 6] More recently, findings from an analysis of the combined 2008-2012 Medical Expenditure Panel Survey data estimated 12.3% of U. S. non-institutionalized women of childbearing age have a disability. [7] Although women with disabilities have the same sexual and reproductive rights as other women, they may face discriminatory attitudes regarding their rights to engage in sexual activity and make decisions related to pregnancy, childbirth, and parenting. [5-7]

Compared to women without disabilities, women with disabilities are likely to have similar child-bearing desires but are less likely to intend to become pregnant. [4] Factors potentially influencing this difference include greater risks for physical and/or emotional problems during pregnancy and delivery; increased risk of financial and physical strain involved in parenting; and, realistic fears of losing custody of a child due to societal assumptions about the ability of women with disabilities to care for their children [4-8, 11]. Thus, unintended pregnancy is often a serious issue for women with disabilities. [4-14]

Although there is a limited but growing knowledge base on pregnancy in women with disabilities, [8, 10, 14] little is known from representative samples about their contraceptive use, particularly among women with cognitive or intellectual (including learning) disabilities.[15,16] Research has identified disparities between U.S. women with and without disabilities in accessing and receiving recommended clinical preventive services such as routine physical examinations, cervical cancer screenings, and family planning services. [17, 18] Women with disabilities report multiple barriers to achieving pregnancy. For example, they report difficulties finding accessible facilities and medical equipment as well as obstetrical practitioners and other providers who are knowledgeable about the potential interactions between their disability and pregnancy, and a lack of health insurance to cover the services [8-14]. They also may experience disability-related barriers to using contraception such as the inability to swallow a pill, or difficulty handling the packaging. [19 -22] Without access to family planning services and appropriate contraception, women of reproductive age with disabilities are at heightened risk of experiencing unintended pregnancy. [7]

Nearly half (45%) of pregnancies in the U.S. are unintended. [23] Most unintended pregnancies are caused by inconsistent, incorrect, or non-use of a contraceptive method. [24] Female sterilization and the oral contraceptive pill have been the most common contraceptive methods for women in the U.S. since 1982. [25, 26] The average failure rate for the pill is 7% in a year, and the average failure rate for any method during contraceptive use is 10% in a year of use. [26] This 10% failure rate may help to explain the popularity of female sterilization in the US.

Although two recent studies investigated contraceptive use among women with physical and/or sensory disabilities [15, 16] little is known about use among women with cognitive disabilities and those with both physical and cognitive disabilities. This is important because cognitive disabilities are more common in the reproductive ages than physical disabilities. [5, 6] A recent report of telephone survey data collected from women 18-50 years of age in seven states in 2013 found that women with disabilities are more likely than others to use female sterilization at last intercourse. [29]

2. Material and Methods

2.1. Source of Data

We used data from the 2011-2015 National Survey of Family Growth (NSFG). The NSFG is conducted by the CDC's National Center for Health Statistics in collaboration with other agencies of the U.S. Department of Health and Human Services. The survey is largely focused on topics related to fertility, sexual activity, contraceptive use, reproductive health care, and family formation. The NSFG uses a stratified, multistage area probability sample to make nationally representative estimates for women and men aged 15-44 years in the household population of the United States. Interviews are conducted in person in respondents' homes by trained female interviewers. The 2011-2015 NSFG contained interviews with 11,300 women with response rates of about 72%. [30,31]

The NSFG collected standard demographic items including age, marital and cohabiting status, race and Hispanic origin, parity, current insurance coverage, and detailed information on past and current contraceptive use. We also included the NSFG's measures of current disability status and the recoded variable CONSTAT1, which measures the current contraceptive status and method use of each woman in the sample.

2.2. Disability measures

In 2011, the U. S Department of Health and Human Services established six standard disability-related questions as a minimum question set for population-based U.S. surveys, defining disability from an evidence-based functional perspective, including current limitations in hearing, vision, cognition, mobility, self-care, and independent living. [32, 33] These items were included in the NSFG for the first time in 2011-2015. *Disability status* was measured using a series of six questions, with yes/no responses. The questions ask whether the respondent has difficulty hearing, seeing, concentrating or making decisions, walking or climbing stairs, dressing or bathing, and going out on errands alone (Figure 1). For the present analyses, participant responses were classified as no disability (i. e., “no” to all six

questions), any disability (i. e., yes to any of the six questions), cognitive disability only, physical disability only, or both physical and cognitive. (Definitions are in Figure 1)

2.3. Exclusions

For the present analysis, we excluded women who were not at risk of unintended pregnancy. These women reported never having had intercourse with a man, or not having intercourse in the last 3 months, or being currently pregnant, up to 6 weeks' postpartum, trying to become pregnant at the time of the interview, or sterile for non-contraceptive health reasons, such as having had a hysterectomy (codes 30-41 on the recoded variable CONSTAT1). Applying these exclusion criteria provided a total sample of 7,505 women at risk of unintended pregnancy at the date of interview. Using the sampling weights reveals that these women represent 42 million women 15-44 in the U. S. household population.

2.4. Analysis procedures

We compared contraceptive use among women with and without disability in 7,505 women by age, race, and parity. Contingency table analyses with Rao-Scott second order Corrected Pearson tests were used to test the significance of differences between women with and without disabilities. Analyses accounted for survey weights, clustering and stratification of the data. Statistical significance of the tests was defined by $p < 0.05$. The survey module of Stata Version 14 was used for this analysis. We used the survey logistic regression procedure in Stata for the logistic regression analyses. The control variables for the regression analyses were age (15-24, 25-34, 35-44), parity (0, 1, 2 or more); race and origin (Hispanic, Black, White, and other); source of insurance coverage (private, government, and no insurance); and whether the woman had had any previous unintended pregnancies (never pregnant; no unintended pregnancies; one or more unintended pregnancies). All of these were recoded and imputed variables in the NSFG, so they had no missing data.

Results

As shown in Figure 1, among all 7,505 respondents examined in this analysis, 17.1% reported at least one of the 6 types of disability. (Respondents were allowed to report more than one type, and 5.8% did so.) Cognitive disability (self-reported “serious difficulty concentrating, remembering, or making decisions,” 11.3%) was the most commonly reported; another 6.5% reported vision or hearing disabilities (yes to questions 1 or 2), and 5.1% reported other physical disabilities (yes to questions 4, 5, or 6). Thus, among the household population in this age range, *the most common type of disability is “cognitive,” followed by vision or hearing*, followed by other physical disabilities.²⁵

Table 1 shows a profile of the demographic characteristics of women with and without disabilities. All women ($n=11,300$) are shown in the first two columns, and women at risk of unintended pregnancy ($n=7,505$) are shown in the third and fourth columns. Since our analysis is focused on those at risk of unintended pregnancy, we will discuss them in the following text. Women with disabilities are not more likely to be 15-24 than women without disabilities (29.0% vs. 25.7%, $p=.09$). Women with disabilities are somewhat more likely to

have had a birth (67.8% vs. 63.1%) than women without disabilities ($p=.02$). Differences by race and ethnicity are small.

The 7,505 sampled women 15-44 at risk of unintended pregnancy are shown by the contraceptive method they were using at the date of interview in Table 2. Overall, 20.8% of women at risk of unintended pregnancy were using female sterilization as their method of birth control; 6.5% had a husband or partner who was using male sterilization; 23.2% were using the pill, making the pill the most commonly-used method; 10% were using the IUD; 8.1% used another highly effective method (implants, injectables, etc), 13.4% had a male partner who was using the condom; 7.7% were using other less effective methods (e.g. withdrawal, rhythm methods), and 10.3% were having intercourse but not using a method. These are long-standing patterns of contraceptive use in the US, except for the recent rise of the intrauterine device (IUD). [25,26]

In table 2, we used a dichotomous measure of disability to maximize sample size and simplify the presentation. We found large and significant differences by disability status in 3 of the contraceptive use categories: use of female sterilization, use of the pill, and not using any method. The pill and sterilization are the most commonly-used methods. [25, 26] Differences by disability status in male sterilization, use of the IUD, use of other highly effective methods (e. g., injectables, implants), the male condom, and other less effective methods (e.g., withdrawal, rhythm methods), were smaller (table 2).

Female Sterilization

First, 30.2% of women with disabilities were using female sterilization, compared with 18.8% of women without disabilities ($p < 0.001$). (Table 2). Sterilization is uncommon among women 15-24. However, at 25-34 and 35-44 years of age, women with disabilities were more likely to use sterilization than women without disabilities: For example, at ages 35-44, 53% of women with disabilities were using female sterilization, compared with 34% of women without a disability ($p = 0.00$).

Pill

Secondly, women with disabilities were less likely to use the pill (14.8%) than women without disabilities (24.9%, $p < 0.001$). These differences were seen in each age group, but they were significant only for women 25-34 years of age ($p = 0.01$).

No method

Third, 14.1% of women 15-44 with disabilities were not using any method, compared with 9.5% of women without disabilities ($p < 0.001$). This difference was 19.7% vs. 10.6% at age 15-24 (p -value = 0.00), and 13.9% vs. 9.4% at age 25-34 ($p = 0.02$). It was not significant at age 35-44 (10.1% vs 8.9%).

Parity

By parity, differences in non-use were large among childless women. Among childless women *with* disabilities, 19.6% were not using a method, compared with 11.4% of childless women *without* disabilities ($p < 0.001$). (table 2).

By race/origin, there were significant differences by disability status in use of sterilization among white and black women. Black women living with a disability were more likely to use sterilization than Black women without a disability (41% vs. 23%, respectively, $p < 0.001$). However, there was no difference in non-use by disability status among Black women.

Detailed disability for age 15-44

Table 3 uses more specific categories of disability: cognitive disability only, physical disability only, and both cognitive and physical, by age. The difference in use of female sterilization by disability status is due to those with physical disabilities. Use of female sterilization is higher among women with physical disabilities (31.3% vs. 18.8%, $p = 0.00$) and both physical and cognitive disabilities, compared with those without disabilities (39.8% vs 18.8%, $p=0.00$). The use of sterilization among women with cognitive disabilities is not significantly different from women without disabilities (22.8% vs. 18.8%, $p = 0.10$). Pill use is lower among those with both physical and cognitive disabilities (9.9% vs. 24.9%, $p = 0.00$). Non-use is higher (16.9% vs. 9.5%, $p = 0.00$) among women with cognitive disabilities than among women with no disabilities.

By age, at least two findings in table 3 are striking: women 15-24 with cognitive disabilities are about twice as likely to be non-users of contraception than women without disabilities (20.4% vs. 10.6%, $p = 0.00$). Secondly, among women 35-44 with both physical and cognitive disabilities, the proportion using sterilization was 71%, compared with 34% of those 35-44 without disabilities ($p = 0.00$). Higher use of sterilization was also apparent among those with disabilities 25-34 years of age (29.4% vs. 15.9%, table 3; p -value, .000). Next we examine these relationships in a multivariate context to see if they persist after controls.

Table 4 shows logistic regression results. We analyzed three logistic regression models (each was done several different ways to check for robustness). All three models included all 7,505 women at risk in the denominator. Model 1 uses as its outcome the use of female sterilization (=1, vs all other categories=0). The outcome for Model 2 is use of the pill (vs all other categories). The outcome for Model 3 is non-use of any method (=1, vs any method = 0).

Model 1 predicts the use of female sterilization for birth control purposes. After adjustment for age, parity, race, insurance coverage, and previous unintended pregnancies, having a cognitive disability increased the odds of female sterilization (aOR =1.54, 95% CI 1.12, 2.12). Physical disabilities were also predictors of sterilization (aOR =1.59, 95% CI 1.08-2.35), and women with both physical and cognitive disabilities were more likely than women without disabilities to use sterilization (aOR=2.67, 95% CI 1.71 – 4.51).

Age, parity, and lack of private health insurance coverage also conferred independent effects. Women who had at least 1 previous unintended pregnancy had more than twice the odds of sterilization (aOR = 2.26, 95% CI 1.80 – 2.83), but the effect of disability was independent of past unintended pregnancies. Black race had an independent effect (aOR 1.36, 95% CI = 1.05 – 1.76), but having a disability was associated with sterilization independently of race.

Model 2 predicts the use of the oral contraceptive pill. (We also ran the models excluding sterilized women from the denominator; the results were very similar, except that standard errors and confidence intervals were larger.) After adjusting for age, parity, race, insurance coverage, and previous unintended pregnancies, women with *physical* disabilities were less likely to be using the pill (aOR = 0.57 95% CI 0.40-0.82), as were women with *both physical and cognitive disabilities* (aOR = 0.37; 95% CI = 0.21 - 0.66) compared to women without disabilities.

Increasing age, having two or more births, being non-White, and having government health insurance coverage or no insurance were all significant predictors of reduced odds of using the pill. Having had an unintended pregnancy was not a significant predictor of using the pill.

Model 3 shows the prediction of non-use of contraception among women who had intercourse in the 3 months before the interview. After controlling for age, parity, race, insurance coverage, and previous unintended pregnancy, women with *cognitive* disabilities, compared to women without disabilities, had almost twice the odds of being nonusers of contraception (aOR = 1.90; 95% CI 1.36-2.66). Women with other types of disabilities had elevated odds but they did not reach the .05 level of significance.

Discussion

In this study, we analyzed contraceptive use patterns by disability status among US women 15-44 years of age in the 2011-2015 NSFG, using an evidence-based 6-item measure of disability. We noted an increased use of female sterilization by women with physical, cognitive, and both types of disabilities. These findings were evident among women with children, and among women 25 and older. Secondly, in adjusted models we found reduced odds of using the pill among women with physical disabilities. Third, we found increased odds of non-use among women with cognitive disabilities—women who reported that they had “*serious difficulty concentrating, remembering, or making decisions.*” To our knowledge, our analysis is the first to document such findings among a national population-based sample of women of reproductive age. The greater non-use of contraception among sexually active women under age 25 with cognitive disabilities is important for clinicians to consider when helping young women avoid unintended pregnancy. Our analyses also showed effects (particularly for sterilization and the pill) that are stronger for women with *both physical and cognitive disabilities*. The differences are significant and remain in adjusted models. These findings also have clinical implications in that they highlight the potential for adverse outcomes in this marginalized and at-risk population.

Our study has several strengths-- including a large, nationally representative sample with a good response rate, an evidence-based measure of disability, an examination of disability types previously not examined in this context, and thorough, in-person collection of data on contraceptive use. Its limitations include 1) collection of data from the household population, which excludes the smaller number of women ages 15-44 with more severe disabilities living in institutions; 2) the lack of questions directly measuring disability severity; and, 3) the collection of disability-related data at the date of the interview--making

it difficult to measure the timing of key predictor variables (such as education, family socio-economic background or insurance coverage) with respect to the onset of disability. Resolving such issues may require the use of event history or longitudinal data.

Future research should address the causes of the differences we have found. For example, contraceptive failure rates and the frequency of unintended births are known for the general population but unknown for women with disabilities. Adverse outcomes associated with unintended pregnancy may be especially serious for women with disabilities. [7] We recommend that future research include the development and rigorous evaluation of interventions to support effective preconception care, prevent unintended pregnancy, and enhance the success of family planning among women with disabilities.

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1. Do you have serious difficulty hearing? (yes or no)
2. Do you have serious difficulty seeing, even when wearing glasses or contact lenses? (yes or no)
3. Because of a physical, mental or emotional condition, do you have serious difficulty concentrating, remembering or making decisions? (yes or no)
4. Do you have serious difficulty walking or climbing stairs? (yes or no)
5. Do you have difficulty dressing or bathing? (yes or no)
6. Because of a physical, mental, or emotional condition, do you have difficulty doing errands alone such as visiting a doctor's office or shopping? (yes or no)

See table 3:

Any disability =yes to 1-6	(n= 1444)
Cognitive disability only = yes to 3 (and no to 1, 2, 3, 4, 5, or 6).	(n=575)
Physical disability only = yes to 1, 2, 4, 5, or 6 (and no to 3).	(n=486)
Both =yes to 3 AND yes to (1, 2, 4, 5, or 6).	(n=383)

Figure 1.

Questions on Disability in the NSFG, and unweighted frequencies, Among the 7,505 women at risk of unintended pregnancy: 2011-2015 NSFG.

Table 1
 Distribution of select characteristics among women 15-44 years of age, by disability status and risk of unintended pregnancy: United States, 2011-2015 National Survey of Family Growth. (N's are unweighted sample sizes. Percentages are weighted national estimates.)

	All N = Women 11,300		Women at risk of unintended pregnancy N = 7,505		P-value of women at risk of unintended pregnancy
	No disability N = 9,018	Any disability N = 2,282	No disability N = 6,061	Any disability N = 1,444	
Total	100%	100%	100%	100%	
Age					
15-24 years	31.8%	36.1%	25.7%	29.0%	0.09
25-34 years	35.2%	30.8%	37.4%	34.1%	0.09
35-44 years	33.0%	33.2%	36.8%	36.9%	0.98
Parity					
No births	45.5%	43.2%	37.0%	32.2%	0.02
1 or more births	54.5%	56.8%	63.1%	67.8%	-
Race/Ethnicity					
Non-Hisp White	57.7%	56.5%	60.3%	60.2%	0.95
Non-Hisp Black	14.3%	16.8%	13.5%	16.1%	0.06
Hispanic	19.9%	20.9%	19.4%	19.1%	0.87
Other	8.1%	5.9%	6.8%	4.7%	0.02
Unwanted Pregnancy					
Never pregnant	39.1%	35.6%	31.9%	25.9%	0.00
Ever pregnant, all intended	28.2%	21.2%	29.9%	23.4%	0.00
Ever pregnant, had an unintended preg	32.8%	43.2%	38.2%	50.8%	0.00
Insurance					
Private	63.5%	40.1%	64.2%	42.3%	0.00
Government	19.6%	38.0%	18.0%	35.6%	0.00
None	16.9%	21.9%	17.7%	22.1%	0.02

Table 2

Percent of women 15-44 years of age at risk of unintended pregnancy by contraceptive method, disability status, according to age, parity, and race/ethnicity: 2011-2015 NSFG (N's are unweighted sample sizes. Percentages are weighted national estimates. See footnotes below)

	N	Percent total	Female sterilization	Male Sterilization	Pill	IUD	Other highly effective [#]	Condom	Other less effective ⁺	No method
Total	7,505	100%	20.8%	6.5%	23.2%	10.0%	8.1%	13.4%	7.7%	10.3%
No disability	6,061	100%	18.8%	7.2%	24.9%	10.5%	7.7%	13.7%	7.6%	9.5%
Any disability	1,444	100%	30.2%	3.3%	14.8%	7.4%	10.3%	12.0%	7.9%	14.1%
Age										
15-24										
No disability	1,652	100%	0.8%	0.3%	43.3%	8.1%	14.4%	16.3%	6.1%	10.6%
Any disability	456	100%	2.4%	0.2%	29.5%	5.0%	19.3%	17.8%	6.1%	19.7%
25-34										
No disability	2,464	100%	15.9%	3.4%	24.0%	14.3%	7.7%	15.8%	9.2%	9.4%
Any disability	528	100%	29.4%	1.6%	14.8%	9.4%	9.6%	13.2%	8.2%	13.9%
34-44										
No disability	1,945	100%	34.4%	15.8%	12.9%	8.3%	2.9%	9.7%	7.0%	8.9%
Any disability	460	100%	52.8%	7.4%	3.2%	7.4%	3.8%	6.2%	9.2%	10.1%
Parity										
No births										
No disability	2,138	100%	1.0%	2.0%	46.8%	4.7%	9.3%	17.9%	6.8%	11.4%
Any disability	484	100%	3.3%	0.4%	32.6%	3.3%	14.5%	20.7%	5.7%	19.6%
1 + births										
No disability	3,923	100%	29.3%	10.3%	12.1%	13.9%	6.7%	11.2%	8.1%	8.4%
Any disability	960	100%	42.9%	4.7%	6.3%	9.4%	8.2%	7.8%	9.0%	11.6%
Race										
NH White										
No disability	2,985	100%	17.1%	9.9%	29.2%	10.2%	6.1%	11.9%	7.5%	8.0%
Any disability	718	100%	28.1%	4.2%	18.0%	7.5%	9.6%	11.9%	7.9%	12.9%

	N	Percent total	Female sterilization	Male Sterilization	Pill	IUD	Other highly effective [‡]	Condom	Other less effective ⁺	No method
NH Black										
No disability	1,245	100%	22.9%	1.9%	19.3%	8.8%	13.2%	14.8%	6.3%	12.8%
Any disability	329	100%	41.1%	0.6%	9.2%	4.1%	11.6%	10.2%	9.7%	13.6
Hispanic										
No disability	1,467	100%	23.6%	3.5%	17.0%	12.8%	8.9%	14.2%	8.0%	11.8%
Any disability	328	100%	29.4%	3.7%	10.2%	9.9%	9.9%	13.8%	5.2%	17.9%
Other										
No disability	364	100%	13.3%	4.1%	20.4%	9.7%	6.7%	25.5%	10.2%	10.0%
Any disability	69	100%	23.2%	N/A	11.4%	7.9%	15.5%	11.2%	13.7%	17.2%

Bolded Cells: Difference is significant at p<0.05 using a Rao-Scott second order corrected Pearson tests comparing with “no disability” (the row above it), IUD (intrauterine device); POP (progestin only pill)

[‡]“Other highly effective” methods include implants, injectables, the patch, ring, and emergency contraception.

⁺“Other less effective” methods include diaphragm, foam, suppository, jelly or cream, periodic abstinence, the rhythm method, withdrawal, other methods.

Table 3
Percent of women 15-44 years of age at risk of unintended pregnancy by contraceptive method, detailed disability status, and age: 2011-2015 NSFG*

	N	total	Female sterilization	Male Sterilization	Pill	IUD	Other highly effective #	Condom	Other less effective +	No method
Total	7,505	100%	20.8%	6.5%	23.2%	10.0%	8.1%	13.4%	7.7%	10.3%
No disability	6,061	100%	18.8%	7.2%	24.9%	10.5%	7.7%	13.7%	7.6%	9.5%
Any disability	1,444	100%	30.2%	3.3%	14.8%	7.4%	10.3%	12.0%	7.9%	14.1%
Cognitive only	575	100%	22.8%	2.6%	19.5%	6.9%	10.4%	13.9%	6.9%	16.9%
Physical only	486	100%	31.3%	5.9%	13.0%	8.7%	10.0%	10.8%	8.4%	11.9%
Both	383	100%	39.8%	1.0%	9.9%	6.5%	10.4%	10.6%	8.9%	12.9%
Age										
15-24										
No disability	1,652	100%	0.8%	0.3%	43.3%	8.1%	14.4%	16.3%	6.1%	10.6%
Any disability	456	100%	2.4%	0.2%	29.5%	5.0%	19.3%	17.8%	6.1%	19.7%
Cognitive only	221	100%	2.8%	N/A	29.3%	4.8%	18.1%	19.3%	5.3%	20.4%
Physical only	124	100%	0.9%	0.7%	33.1%	5.9%	21.9%	19.8%	3.4%	14.2%
Both	111	100%	2.9%	N/A	26.6%	4.5%	19.2%	12.9%	10.2%	23.5%
25-34										
No disability	2,464	100%	15.9%	3.4%	24.0%	14.3%	7.7%	15.8%	9.2%	9.4%
Any disability	528	100%	29.4%	1.6%	14.8%	9.4%	9.6%	13.2%	8.2%	13.9%
Cognitive only	223	100%	26.7%	2.5%	21.4%	8.4%	6.9%	13.2%	7.5%	13.3%
Physical only	176	100%	31.0%	0.9%	13.2%	8.1%	9.3%	14.3%	9.2%	13.9%
Both	129	100%	31.9%	0.9%	5.5%	12.8%	14.6%	11.7%	7.9%	14.6%
35-44										
No disability	1,945	100%	34.4%	15.8%	12.9%	8.3%	2.9%	9.7%	7.0%	8.9%
Any disability	460	100%	52.8%	7.4%	3.2%	7.4%	3.8%	6.2%	9.2%	10.1%
Cognitive only	131	100%	45.5%	6.4%	3.4%	7.8%	4.4%	7.3%	8.4%	16.9%
Physical only	186	100%	45.0%	11.8%	3.9%	10.3%	5.2%	4.3%	10.1%	9.4%
Both	143	100%	71.4%	1.8%	1.8%	2.9%	0.9%	8.0%	8.7%	4.2%

* N's are unweighted sample sizes. Percentages are weighted National estimates.

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Bolded Cells: Difference is significant at $p < 0.05$ using a Rao-Scott second order corrected Pearson tests comparing with “no disability”

IUD = intrauterine device

[#]“Other highly effective” methods include implants, injectables, the patch, ring, and emergency contraception

⁷“Other less effective” methods include diaphragm, foam, suppository, jelly or cream, periodic abstinence, the rhythm method, withdrawal, other methods.

Table 4

Among women at risk of unintended pregnancy, unadjusted and adjusted odds ratios of using female sterilization, the pill, and not using (‘no method’) NSFG (**odds ratios in bold** are statistically significant at $p < 0.05$ or better)

	Female Sterilization		Pill		Not using (“no method”)	
Total N	7,505	OR	7,505	OR	7,505	OR
DISABILITY STATUS		aOR*		aOR*		aOR*
Reference: no disability						
Cognitive disability only	1.27 (0.96-1.69)	1.54 (1.12-2.12)	0.73 (0.50-1.07)	0.67 (0.44-1.01)	1.93 (1.40-2.66)	1.90 (1.36-2.66)
Physical disability only	1.96 (1.44-2.67)	1.59 (1.08-2.34)	0.45 (0.32-0.63)	0.57 (0.40-0.82)	1.28 (0.85-1.93)	1.26 (0.83-1.90)
Both disabilities	2.84 (2.04-3.97)	2.67 (1.71-4.16)	0.33 (0.18-0.60)	0.37 (0.21-0.66)	1.40 (0.90-2.18)	1.45 (0.91-2.32)
AGE						
Reference: 25-34						
15-24 years	0.05 (0.03-0.08)	0.14 (0.09-0.22)	2.35 (1.97-2.82)	1.23 (1.00-1.52)	1.24 (1.01-1.53)	0.87 (0.70-1.08)
35-44 years	2.72 (2.25-3.31)	2.28 (1.80-2.89)	0.44 (0.34-0.56)	0.62 (0.48-0.80)	0.89 (0.69-1.14)	1.16 (0.87-1.55)
PARITY						
Reference: 1 birth						
No births	0.18 (0.12-0.27)	0.40 (0.22-0.73)	3.40 (2.71-4.26)	1.64 (1.08-2.49)	0.86 (0.68-1.08)	0.87 (0.57-1.31)
2 births or more	8.73 (6.67-11.42)	6.35 (4.81-8.39)	0.38 (0.29-0.49)	0.43 (0.32-0.58)	0.45 (0.34-0.60)	0.43 (0.31-0.59)
Ever had unintended pregnancy						
ref: Ever pregnant, never had unintended pregnancy						
Never pregnant	0.04 (0.02-0.06)	1.13 (0.52-2.42)	5.99 (4.73-7.59)	1.70 (1.08-2.67)	1.23 (0.97-1.57)	1.00 (0.63-1.59)
Ever pregnant, at least 1 unintended pregnancy	2.04 (1.69-2.46)	2.26 (1.80-2.83)	0.91 (0.72-1.16)	0.95 (0.73-1.24)	0.71 (0.56-0.90)	0.61 (0.47-0.80)
RACE & ORIGIN						
reference: NH White						
NH Black	1.54 (1.23-1.93)	1.36 (1.05-1.76)	0.56 (0.45-0.70)	0.65 (0.51-0.81)	1.54 (1.22-1.94)	1.61 (1.26-2.05)
Hispanic	1.39 (1.10-1.77)	0.93 (0.72-1.20)	0.50 (0.39-0.65)	0.70 (0.53-0.91)	1.52 (1.20-1.94)	1.63 (1.26-2.11)
Other	0.73 (0.47-1.14)	0.75 (0.46-1.23)	0.64 (0.42-0.96)	0.59 (0.40-0.87)	1.26 (0.93-1.71)	1.26 (0.93-1.71)
INSURANCE COVERAGE						
Reference: private insurance						
Govt plan	1.80 (1.50-2.16)	1.57 (1.25-1.97)	0.49 (0.40-0.59)	0.65 (0.53-0.80)	1.50 (1.17-1.91)	1.56 (1.18-2.06)

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	Female Sterilization		Pill		Not using ("no method")	
Total N	7,505	7,505	7,505	7,505	7,505	7,505
	OR	OR	OR	OR	OR	OR
	aOR*	aOR*	aOR*	aOR*	aOR*	aOR*
No insurance	1.72 (1.38-2.15)	1.52 (1.18-1.95)	0.35 (0.28-0.43)	0.42 (0.34-0.53)	1.48 (1.12-1.94)	1.47 (1.10-1.97)

* Adjusted models include disability status, age, parity, ever had an unintended pregnancy, race/origin, and insurance coverage.