

Social, Reproductive, and Attitudinal Factors Associated with U.S. Women's Disagreement with the Passage of the Affordable Care Act

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Abstract

Background: Notably absent from research and public and policy dialogue on the Affordable Care Act (ACA) and reproductive health care are women's perspectives and a broader understanding of factors that shape ACA attitudes. We investigated social, reproductive, and attitudinal factors associated with women's disagreement with the passage of the ACA.

Methods: Data were drawn from the Women's Health Care Experiences and Preferences Study, our population-based internet survey of 1,078 randomly sampled United States women ages 18–55 years conducted in September 2013. Items measured ACA attitudes, including disagreement with the ACA's passage. We examined relationships between ACA disagreement, sociodemographic and reproductive characteristics, health service experiences, and reproductive health care and policy attitudes with logistic regression.

Results: Among women who had heard of the ACA ($n = 888$), 35% disagreed with it and 38% did not know how they felt. Black women (adjusted odds ratio [aOR] 0.12, 95% confidence interval [CI] 0.03–0.55) and women with incomes of >\$75k (aOR 0.38, CI 0.17–0.88), Medicare/Medicaid insurance (aOR 0.24, CI 0.10–0.61), and infrequent religious service attendance (aOR 0.57, CI 0.35–0.93) were less likely to disagree with the ACA's passage, compared with their counterparts. Republican party affiliation was the strongest predictor of ACA disagreement (aOR 17.10, CI 9.12–32.09). Negative beliefs about the ACA's ability to improve access to preferred care and regarding employers' and the government's roles in reproductive health care were positively associated with ACA disagreement.

Conclusions: Many women who could benefit from the ACA disagree with or do not know how they feel about its passage, which may influence participation in ACA benefits and services.

Introduction

THE PATIENT PROTECTION AND AFFORDABLE CARE ACT, otherwise known as the ACA is considered by many to be a major health policy feat in the United States.^{1,2} The health care reform enacted in 2010, which contains regulation that requires certain evidence-based health services to be covered by insurance plans has been expected to overhaul health care for Americans.^{1,2} However, five years later there continues to be confusion and debate regarding the ACA and the impact it will have on health care access, utilization, and outcomes. To date, widespread, persistent lack of knowledge, as well as negative attitudes, have been documented as barriers to ACA implementation.^{3–8}

Among women's health provisions mandated by the ACA, including well-woman exam, pregnancy, family planning, and screening for intimate partner violence, cervical cancer and sexually transmitted disease care, some reproductive health services and in particular contraceptive services, have been the most debated and may be the least understood.^{6–13} Underlying explanations for the controversy surrounding the ACA and reproductive health care are likely complex and driven by many interrelated and deep-rooted sociocultural, political, and religious norms and ideologies. Provision of contraception services, including employer-mandated coverage for services, has been opposed by many religious organizations, contributing to heated debates about religious exemption for some organizations but not for others.^{7–11} This

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polarizing policy dialogue about the ACA's governance of women's health care has likely served as the public's primary exposure to information about the health reform and may contribute to the limited understanding of and unfavorable attitudes toward the ACA and some of its key reproductive health provisions, especially for family planning.^{7,9,11,14,15} For example, the Kaiser Family Foundation recently reported that nearly half of Americans incorrectly believe that the ACA mandates federally funded abortion services.⁷

Generally missing from this dialogue and largely from ACA research to date, though, are women's voices—that is, their beliefs about the health care reform and its reproductive health provisions. This is a critical gap in our evaluation of the ACA and barriers to its implementation given that *women* have been at the center of the public policy debate. Thus, we investigated what factors influence women's views regarding passage of the ACA, especially related to reproductive health care. We hypothesized that political party affiliation is an important determinant of women's ACA attitudes, but also that a wider range of understudied social, reproductive, and attitudinal factors are associated with women's disagreement with the ACA. Ultimately, our goal is to identify potentially modifiable “risk factors” for ACA disagreement and specific groups of women to target in public health educational interventions and programs in order to inform future evidence-based women's health policy efforts.

Materials and Methods

Study design and sample

This study was approved by the University of Michigan's institutional review board. Data were drawn from our Women's Health Care Experiences and Preferences Study, a population-based, cross-sectional Internet survey of 1,078 U.S. women aged 18–55 years conducted in September 2013. The study design and sample have been described elsewhere.⁸ In brief, the survey was fielded by GfK (formally Knowledge Networks [KN], Menlo Park, CA), using their existing national household random probability panel comprised of 50,000 U.S. residents aged 13 years and older sampled via random digit dialing telephone and probability-based address mailing methods. GfK panelists without a computer or Internet connection are provided means to participate. Unique login information is provided and responses are de-identified by GfK. Nonspecific incentives are used to encourage complete survey response. Demographic information is collected and updated to allow for complex, stratified sampling designs. For our study, we considered GfK panelists for inclusion if they were English speaking and between the ages of 18 and 55 years, given our focus on reproductive health service experiences and utilization for the larger study. Eligible participants were randomly selected from the GfK panel and recruited to participate via an email invitation ($n=2,520$). A total of 1,078 women consented and completed the survey (response rate of 43%). We then applied sampling weights to account for the complex, stratified sampling design and to bring our sample in line with national demographic benchmarks.

The larger Women's Health Care Experiences and Preferences survey included 29 items designed to measure women's experiences with and preferences for a variety of types of health care, especially reproductive health. Items

also assessed women's beliefs about government and employers roles in reproductive health care provision and their awareness of and attitudes toward the ACA. Finally, information on women's reproductive and health histories, mental health and social wellbeing, social context, relationship characteristics, and health and health service behavioral intentions was collected. The survey, which had an average completion time of 15 minutes, was pilot tested among 25 GfK participants to ensure readability and comprehension, and necessary revisions were incorporated before it was administered to the larger sample.

Measures

Here, we focus on women's attitudes toward the ACA. On a four-point scale (yes, no, neutral, or don't know), women were first asked whether they had ever heard of the Affordable Care Act, sometimes referred to as “Obamacare.” If so, they were then asked whether they believed their insurance coverage would change as a result of the ACA for different types of women's health services; how they expected those changes would affect their personal use of those health services; and what effect the ACA would have on their ability to get preferred care (i.e., care they would most like to have). Our analytic sample comprises the 888 women (82%) who responded that they had ever heard of the ACA.

Finally, those women were also asked, “Overall, do you agree or disagree with the passage of the Affordable Care Act?” We constructed a series of categorical and dichotomous indicators for ACA disagreement (e.g., three-point variable of disagree, agree, neutral/don't know). Because we felt it was important to distinguish conceptually between the response options and potentially capture some meaning of attitudinal differences, we first present bivariate results in which we compared disagree versus agree and disagree versus neutral/don't know. This process informed construction of our outcome variable for regression models: a dichotomous indicator of women's disagreement with the passage of the ACA (disagree, coded as 1, versus everyone else, coded as 0).

We treated the other ACA-related beliefs (e.g., how the ACA would impact personal coverage and ability to get preferred care) as individual predictor variables on a three-point scale (yes, no, neutral/don't know).

We examined a series of other measures related to women's beliefs about reproductive health care, as we hypothesized that women's attitudes toward the government's and employers' roles in reproductive health service provision, for instance, might provide further insight and support into women's views on the ACA and health policy in general. Items assessed women's agreement with the following statements on a three-point scale (yes, no, don't know):

- Employers should provide health plans that cover the costs of contraception;
- Employers should provide health plans that cover the costs of abortion; and
- Religious affiliated hospitals and colleges should be excluded from having to cover the costs of contraception.⁹

Additional survey items assessed women's mistrust of government agencies in supporting birth control methods and services and were measured on a 4-point Likert scale (strongly agree, agree, disagree, strongly disagree):

The government makes certain that birth control methods are safe before they come to market;

The government and public health institutions use poor and minority people as guinea pigs to try out new birth control methods; and

The government is trying to limit minority or poor populations by encouraging the use of birth control; and drug companies don't care if birth control is safe, they just want people to use it so they can make money.

Finally, we examined key demographic, social, and reproductive history factors we hypothesized would be associated with women's disagreement with the ACA based upon our prior work,^{8,9} which included age, race/ethnicity, educational attainment, marital status, income level, religious affiliation and service attendance, political party affiliation, type of health insurance, recent health service utilization, and reproductive history, including sexual intercourse, prescription contraception use, pregnancy, childbirth, and unintended pregnancy experiences.

Statistical analysis

We applied sampling weights and employed weighted statistical commands in SAS 9.3 (proc surveylogistic). We used univariate statistics (frequencies, proportions, and standard errors) to describe the sample's characteristics and Rao-Scott chi-squared tests to compare proportions of ACA disagreement across sociodemographic and reproductive characteristics and other ACA-related and reproductive health care beliefs. To further identify factors associated with women's disagreement with the passage of the ACA, we conducted extensive multivariable logistic regression model building using a hierarchical approach. First we regressed ACA disagreement on the set of sociodemographic characteristics (base model); we then added health insurance status net of sociodemographics to the model, then political party, then the set of reproductive and health service characteristics, and finally individual ACA-related and reproductive health care beliefs. Variables were considered for inclusion in models if they were conceptually relevant to the outcome (e.g., insurance status) and if their *p*-values in bivariate tests (in either set of tests, disagree vs. agree or disagree vs. neutral/don't know) were ≤ 0.25 . Final models presented include all variables that were statistically significant or conceptually important to our outcome. A two-tailed alpha of ≤ 0.05 was considered significant. Results are presented as weighted proportions and adjusted odds ratios (aOR) with 95% confidence intervals (CI).

Results

Sociodemographic and reproductive characteristics of the sample (n = 888)

Women's mean age was 40 years (standard deviation 10). The majority identified as white, (65%), followed by Hispanic (16%), black, (11%), and other (8%) race/ethnicity. College educational attainment was common (70%), and nearly half of women (45%) had incomes $> \$75k$. Most women identified a religion denomination (81%), with 27% reporting frequent service attendance once a week or more. Two-thirds were currently or previously married (67%). Politically, women identified as Democratic (35%), Repub-

lican (26%), or nonaffiliated (25%). Over two-thirds of women had private, commercial, or employer-based health insurance (66%); 10% had Medicaid/Medicare; and 16% were uninsured. Regular health service use (once a year or more frequently) was common (79%). The majority were sexually experienced (86%) and had used prescription contraception at some point (72%), though 29% reported prescription contraceptive use at last intercourse. Two-thirds of women had a history of pregnancy (61%), including over half with an unintended pregnancy (55%) and childbirth (55%).

Factors associated with women's disagreement with the passage of the ACA

Overall, 27% of women agreed with the passage of the ACA, 35% disagreed with it, and 38% did not know how they felt or were neutral. Tables 1 and 2 present proportions of women who disagreed with the passage of the ACA versus proportions that agreed and were neutral/don't know, by sociodemographic and reproductive characteristics and other ACA-related and reproductive health care beliefs. ACA disagreement was associated with nearly all of women's characteristics in unadjusted tests (*p*-value range, 0.03 to < 0.0001). Proportions of women who disagreed with the ACA were higher among older, white, Republican, and married women and women with histories of prescription contraceptive use, pregnancy, and childbirth, compared with their counterparts (Table 1). Higher proportions of ACA disagreement were also noted among women who believed that the ACA would not improve their ability to get their preferred health care or change their women's health service coverage, that employers should not cover the cost of contraception or abortion, and that religious institutions should be exempt from contraceptive coverage, compared with their counterparts (Table 2). Women who disagreed (versus agreed) that the government makes certain that birth control methods are safe before they are made available to the public also had higher proportions of ACA disagreement.

In full multivariable regression models (Tables 3–5), women who identified as black (versus white; aOR 0.12, CI 0.03–0.55) and women with the highest ($> \$75k$) versus lowest ($< \$25k$) incomes (aOR 0.38, CI 0.17–0.88), Medicare/Medicaid insurance (versus private; aOR 0.24, CI 0.10–0.61), and infrequent religious service attendance (\leq few times a year vs. \geq weekly; aOR 0.57, CI 0.35–0.93) were less likely to disagree with the passage of the ACA. Republican party affiliation (versus Democratic; aOR 17.10, CI 9.12–32.09) was the strongest predictor of ACA disagreement (Table 3). Health service use and reproductive history characteristics were not associated with ACA disagreement in multivariable models (Table 4).

For other ACA-related and reproductive health care beliefs (Table 5), women were more likely to disagree with the ACA's passage if they believed that the ACA would worsen (aOR 60.64, CI 18.27–201.32) or not change (aOR 3.68, CI 1.10–12.32) (vs. improve) their ability to get their preferred healthcare. ACA disagreement was also more likely among women who disagreed that employers should have to cover contraception and abortion services (aOR 3.06, CI 1.90–4.94 and aOR 2.46, CI 1.32–4.62, respectively) and that the government makes certain birth control methods safe before they come to market (aOR 2.71, CI 1.74–4.22), compared with

TABLE 1. SOCIODEMOGRAPHIC AND REPRODUCTIVE HISTORY CHARACTERISTICS ASSOCIATED WITH WOMEN'S ATTITUDES TOWARD THE PASSAGE OF THE AFFORDABLE CARE ACT

	Agree (n=230) n (row %)	Disagree (n=312) n (row %)	p-value ^a	Neutral/don't know (n=339) n (row %)	Disagree (n=312) n (row %)	p-value ^a
Age						
18–29 years	53 (50.9)	52 (49.1)	0.25	78 (60.8)	52 (39.2)	0.29
30–44 years	93 (41.1)	123 (58.9)		132 (52.7)	123 (47.3)	
45–55 years	84 (40.7)	137 (59.3)		129 (51.9)	137 (48.2)	
Race/ethnicity						
White, non-Hispanic	148 (35.2)	269 (64.8)	<0.0001	232 (47.2)	269 (52.8)	<0.0001
Black, non-Hispanic	39 (92.1)	3 (7.9)		34 (92.5)	3 (7.5)	
Other, non-Hispanic ^b	17 (48.0)	16 (52.0)		26 (65.3)	16 (34.7)	
Hispanic	26 (50.1)	24 (49.9)		47 (62.5)	24 (37.5)	
Political party						
Democrat	160 (84.8)	34 (15.2)	<0.0001	111 (81.6)	34 (18.5)	<0.0001
Republican	10 (4.2)	163 (95.9)		64 (26.1)	163 (73.9)	
Independent/other	25 (35.3)	49 (64.7)		47 (49.4)	49 (50.6)	
Not affiliated	34 (42.1)	60 (57.9)		114 (69.3)	60 (30.7)	
Highest level of education						
Less than high school	10 (54.3)	9 (45.7)	0.29	21 (71.8)	9 (28.2)	0.10
High school	49 (43.0)	79 (57.0)		111 (60.9)	79 (39.1)	
Some college	55 (36.9)	101 (63.1)		110 (53.2)	101 (46.8)	
Bachelor's degree or higher	116 (48.3)	123 (51.7)		97 (48.7)	123 (51.3)	
Marital status						
Married	120 (33.1)	224 (66.9)	<0.0001	186 (48.4)	224 (51.6)	0.009
Previously married (widowed, divorced, separated)	22 (47.7)	28 (52.3)		35 (56.9)	28 (43.1)	
Never married	63 (63.1)	44 (36.9)		74 (66.1)	44 (33.9)	
Living with partner	25 (60.8)	16 (39.2)		44 (69.9)	16 (30.1)	
Income						
<\$25,000	30 (46.1)	33 (53.9)	0.66	64 (66.2)	33 (33.8)	0.13
\$25,000–49,999	49 (49.3)	61 (50.7)		82 (59.4)	61 (40.6)	
\$50,000–74,999	41 (40.0)	67 (60.0)		58 (51.4)	67 (48.6)	
\$≥75,000	110 (42.4)	151 (57.6)		135 (50.5)	151 (49.5)	
Religious attendance						
Once a week or more	39 (24.5)	126 (75.5)	<0.0001	81 (43.6)	126 (56.5)	0.004
Once or twice a month	29 (45.5)	37 (54.5)		34 (48.3)	37 (51.7)	
A few times a year or less	89 (48.2)	103 (51.8)		133 (57.8)	103 (42.2)	
Never	66 (58.0)	44 (42.0)		88 (67.9)	44 (32.1)	
How often seen a health care provider in past 5 years						
More than once per year	122 (47.6)	139 (52.4)	0.20	144 (52.4)	139 (47.6)	0.48
About once per year	81 (44.6)	113 (55.4)		131 (59.2)	113 (40.8)	
Less than once per year	19 (30.6)	47 (69.4)		42 (49.2)	47 (50.8)	
Never	7 (33.4)	13 (66.6)		22 (60.1)	13 (39.9)	
Ever had sexual intercourse with a male partner						
Yes	195 (42.9)	274 (57.1)	0.11	303 (53.9)	274 (46.1)	0.49
No	29 (57.3)	22 (42.7)		25 (63.8)	22 (36.2)	
Ever used a hormonal contraceptive method						
Yes	154 (39.6)	236 (60.4)	0.03	246 (53.6)	236 (46.4)	0.51
No	69 (55.2)	65 (44.8)		79 (56.5)	65 (43.5)	
Ever experienced pregnancy						
Yes	126 (35.0)	226 (65.0)	<0.0001	227 (51.5)	226 (48.5)	0.13
No	101 (58.3)	80 (41.8)		107 (61.5)	80 (38.6)	
Ever experienced childbirth						
Yes	111 (33.9)	217 (66.1)	0.0002	213 (51.6)	217 (48.4)	0.08
No	117 (55.6)	94 (44.4)		119 (58.1)	94 (41.9)	
Ever experienced an unintended pregnancy						
Yes	110 (33.9)	215 (66.1)	0.0001	213 (51.7)	215 (48.3)	0.22
No	117 (55.6)	94 (44.4)		120 (58.6)	94 (41.4)	

(continued)

TABLE 1. (CONTINUED)

	Agree (n = 230) n (row %)	Disagree (n = 312) n (row %)	p-value ^a	Neutral/don't know (n = 339) n (row %)	Disagree (n = 312) n (row %)	p-value ^a
Used a prescription contraceptive method during last sexual intercourse						
Yes	68 (48.3)	70 (51.7)	0.44	94 (58.2)	70 (41.8)	0.16
No	124 (40.8)	195 (59.2)		188 (50.5)	195 (49.5)	
Current type of health insurance						
Private, commercial, or employer based	161 (41.1)	245 (58.9)	0.59	199 (47.0)	245 (53.0)	0.0003
Medicaid or Medicare	21 (55.4)	15 (44.6)		47 (80.4)	15 (19.6)	
Other	12 (48.3)	13 (51.7)		28 (69.9)	13 (30.0)	
None	33 (49.9)	37 (50.1)		59 (60.7)	37 (39.3)	
Don't know	3 (50.4)	2 (49.6)		5 (69.2)	2 (30.8)	

Row percentages are weighted, and may not add to 100%. Frequencies may not add to 888 due to a few missing data (range 0.1%–2%). Responses pertaining to the survey item on agreement with the ACA were missing for 7 (0.8%) of 888 respondents who had ever heard of the Affordable Care Act and were not included in analyses.

^aRao-Scott chi-square test *p*-value.

^bIncludes respondents who self-identified as 2+ races.

women who agreed with these statements. Women who disagreed (versus agreed) that religious institutions should be exempt from contraceptive coverage (aOR 0.22, CI 0.13–0.38) and that the government and public institutions use poor and minority people as guinea pigs to try out new birth control methods (aOR 0.54, CI 0.30–0.98) were less likely to disagree with the ACA.

Discussion

Only 27% of U.S. women in our population-based survey conducted in 2013 reported favorable attitudes toward the passage of the ACA. This finding is consistent with reports of others who have documented low ACA approval rates among Americans,^{3,4,8} although one recent study documented high levels of support for some specific women's health benefits (e.g., 69% for contraceptive coverage among both men and women).¹³ Our findings extend this work to identify differences in women's ACA attitudes by important social factors. Women of black race, higher income, and those already insured by Medicaid/Medicare were more likely to agree versus disagree with the ACA passage than their counterparts. However, these same groups were also more likely to "not know" whether they agreed or disagreed. Proportions of agreement were similarly low and proportions of not knowing were similarly high across groups of women we would have hypothesized might be more supportive of the ACA, including younger, poor, less educated, and uninsured women and Hispanic women. Moreover, history of pregnancy, childbirth, prescription contraceptive use, and recent health service (or lack thereof) were not associated with ACA attitudes, as we would have predicted. Socially disadvantaged women, those with an unmet need for effective contraception, and nonusers of health services, especially preventive services, disproportionately experience adverse reproductive health outcomes in the United States and are therefore primary target populations of the ACA.^{16–28} Our results may highlight critical gaps in women's understanding and acceptance of the ACA among the very groups who stand to benefit from it the most. Findings may have important implications for whether the women who need health care will actually utilize the services afforded to them under the ACA.²⁹

As expected, political party affiliation was the strongest predictor of women's disagreement with passage of the ACA. Other studies have documented the gap between Democratic approval and Republican disapproval, which widened between 2008 and 2010.^{30,31} Perhaps women who identify as Republican may simply oppose the underlying sociopolitical ideology and guiding principles of the health care reform (e.g., socialized medicine; government-supported plans; mandated, employer-provided coverage). Indeed, women's other negative beliefs about the ACA (e.g., its limited ability to improve access to preferred care) and regarding employers' and the government's roles in reproductive health care provision were also associated with ACA disagreement. Collectively, these attitudinal measures provide a more nuanced picture of political party affiliation and how it may affect women's beliefs about health policy in the United States.

An alternative explanation, though, might be the influence of the predominant ACA public and policy discourse on women's understanding and perspectives of key aspects of the health reform.^{7,9,11,14,15} Public knowledge and perception has likely been shaped by popular media's emphasis on the most controversial aspects of the ACA and reproductive health policy.^{7,9,11,14,15} Other prior research, including our own, has shown that awareness of the ACA is suboptimal, and lack of knowledge appears to be associated with unfavorable attitudes.^{3–7} As noted above, many women in our study did not know how they felt about the ACA's passage, and in fact, similar proportions reported not knowing and disagreeing in many cases. In another study by Henderson et al., the minority of Americans who changed their views about the ACA between 2008 and 2010 attributed the change to self-interest rather than political affiliation.³¹ This might suggest that public health education strategies that draw upon women's self-interests and preferences for health care and policy may have the potential to alter ACA acceptance, at least for some.^{14,15,32,33} If women do not believe that the ACA can improve their ability to get the type of health care they want, then the impact of the ACA on women's health service utilization and outcomes may be compromised.

Conservative religious ideologies, which historically have been correlated with political party, also appear to have played a role in women's disagreement with the passage of

TABLE 2. AFFORDABLE CARE ACT-RELATED AND REPRODUCTIVE HEALTH CARE BELIEFS ASSOCIATED WITH WOMEN'S ATTITUDES TOWARD ITS PASSAGE

	Agree (n = 230) n (row %)	Disagree (n = 312) n (row %)	p-value ^a	Neutral/don't know (n = 339) n (row %)	Disagree (n = 312) n (row %)	p-Value ^a
Expected effect of ACA on ability to get preferred health care						
Improve ability	82 (90.5)	5 (9.6)	< 0.0001	18 (72.0)	5 (28.0)	< 0.0001
Worsen ability	4 (1.7)	189 (98.3)		27 (13.9)	189 (86.1)	
No change	92 (65.8)	45 (34.2)		70 (63.6)	45 (36.4)	
Don't know	52 (43.7)	72 (56.3)		224 (77.3)	72 (22.8)	
Expect women's health exam (pap smear/pelvic) coverage changes						
Yes	29 (43.3)	36 (56.7)	0.0007	16 (27.0)	36 (73.0)	0.01
No	85 (57.9)	70 (42.1)		75 (59.9)	70 (40.1)	
Don't know	116 (38.8)	203 (61.2)		246 (56.3)	203 (43.8)	
Expect contraceptive coverage changes						
Yes	34 (53.3)	31 (46.7)	0.03	18 (32.9)	31 (67.2)	0.15
No	68 (56.0)	55 (44.0)		56 (58.1)	55 (41.9)	
Don't know	124 (38.0)	222 (62.0)		258 (56.0)	222 (44.0)	
Expect breast exam coverage changes						
Yes	16 (35.2)	26 (64.8)	0.0007	12 (27.1)	26 (73.0)	0.007
No	86 (62.1)	63 (38.0)		74 (63.2)	63 (36.9)	
Don't know	127 (38.8)	218 (61.2)		246 (53.9)	218 (46.1)	
Employers should provide plans that cover the costs of contraception						
Agree	190 (59.8)	138 (40.2)	< 0.0001	200 (60.7)	138 (39.3)	< 0.0001
Disagree	14 (11.5)	134 (88.5)		61 (35.1)	134 (64.9)	
Don't know	25 (38.5)	37 (61.5)		74 (70.8)	37 (29.2)	
Employers should provide plans that cover the costs of abortion						
Agree	98 (73.0)	29 (27.0)	< 0.0001	65 (67.0)	29 (33.0)	< 0.0001
Disagree	66 (25.3)	235 (74.7)		166 (41.2)	235 (58.8)	
Don't know	65 (62.0)	46 (38.0)		103 (77.0)	46 (23.0)	
Religious institutions should be exempt from contraceptive coverage						
Agree	25 (16.2)	150 (83.8)	< 0.0001	54 (25.1)	150 (74.9)	< 0.0001
Disagree	158 (60.2)	108 (39.8)		178 (64.1)	108 (35.9)	
Don't know	46 (48.5)	51 (51.5)		103 (70.9)	51 (29.1)	
Government makes certain that birth control methods are safe						
Strongly agree	30 (60.7)	20 (39.3)	< 0.0001	25 (61.1)	20 (38.9)	0.01
Agree	129 (53.2)	116 (46.8)		166 (62.5)	116 (37.5)	
Disagree	49 (36.9)	104 (63.1)		93 (45.8)	104 (54.2)	
Strongly disagree	16 (23.2)	56 (76.8)		36 (41.9)	56 (58.1)	
Government uses poor/minority people to try out new birth control						
Strongly agree	4 (23.7)	10 (76.3)	0.30	8 (44.7)	10 (53.3)	0.52
Agree	29 (46.4)	35 (53.6)		50 (57.4)	35 (42.6)	
Disagree	102 (47.2)	126 (52.8)		165 (58.0)	126 (42.0)	
Strongly disagree	87 (42.1)	124 (57.9)		95 (48.9)	124 (51.1)	
Government limiting minority/poor populations with birth control						
Strongly agree	11 (46.6)	12 (53.4)	0.61	11 (49.4)	12 (50.6)	0.16
Agree	29 (45.5)	41 (54.5)		67 (64.3)	41 (35.7)	
Disagree	76 (42.1)	114 (57.9)		140 (56.5)	114 (43.5)	
Strongly disagree	105 (46.4)	126 (53.6)		98 (46.4)	126 (53.6)	
Drug companies don't care if birth control is safe						
Strongly agree	18 (43.8)	29 (56.2)	0.54	19 (41.5)	29 (58.6)	0.16
Agree	52 (42.3)	75 (57.7)		100 (59.1)	75 (40.9)	
Disagree	107 (47.8)	118 (52.2)		144 (56.7)	118 (43.3)	
Strongly disagree	46 (41.0)	74 (59.0)		56 (44.9)	74 (55.1)	

Row percentages are weighted and may not add to 100%. Frequencies may not add to 888 due to few missing data (range 0.1%–2%). Responses pertaining to the survey item on agreement with the ACA were missing for 7 (0.8%) of 888 respondents who had ever heard of the Affordable Care Act and were not included in analyses.

^aRao-Scott chi-square test *p*-value.

ACA, Affordable Care Act.

TABLE 3. SOCIODEMOGRAPHIC FACTORS RELATED TO WOMEN'S DISAGREEMENT WITH THE ACA

	<i>Sociodemographics only (base model)</i> aOR (95% CI)	<i>Base model + insurance</i> aOR (95% CI)	<i>Base model + insurance and political party</i> aOR (95% CI)
Age	1.02 (1.0–1.04)	1.01 (0.99–1.03)	1.01 (0.99–1.04)
Race/ethnicity			
White, non-Hispanic	1.0 (Ref)	1.0 (Ref)	1.0 (Ref)
Black, non-Hispanic	0.05 (0.01–0.16)	0.04 (0.01–0.16)	0.12 (0.03–0.55)
Other, non-Hispanic	0.62 (0.25–1.56)	0.67 (0.26–1.67)	1.04 (0.36–3.01)
Hispanic	0.54 (0.28–1.04)	0.56 (0.29–1.09)	0.85 (0.46–1.55)
Highest level of education			
Less than high school	1.0 (Ref)	1.0 (Ref)	1.0 (Ref)
High school	1.03 (0.35–3.04)	0.91 (0.33–2.50)	0.79 (0.27–2.29)
Some college	1.22 (0.43–3.46)	0.99 (0.36–2.72)	0.87 (0.30–2.50)
Bachelor's degree or higher	0.92 (0.31–2.70)	0.68 (0.23–1.96)	0.83 (0.28–2.47)
Marital status			
Married	1.0 (Ref)	1.0 (Ref)	1.0 (Ref)
Previously married	0.89 (0.43–1.84)	0.92 (0.45–1.85)	0.83 (0.41–1.67)
Never married	0.63 (0.37–1.07)	0.64 (0.37–1.11)	0.75 (0.42–1.34)
Living with partner	0.61 (0.26–1.42)	0.60 (0.25–1.44)	0.75 (0.30–1.91)
Income			
< \$25,000	1.0 (Ref)	1.0 (Ref)	1.0 (Ref)
\$25,000–49,999	0.86 (0.42–1.76)	0.59 (0.27–1.28)	0.50 (0.22–1.12)
\$50,000–74,999	1.10 (0.54–2.23)	0.68 (0.30–1.56)	0.55 (0.23–1.31)
≥ \$75,000	1.03 (0.54–2.0)	0.62 (0.28–1.34)	0.38 (0.17–0.88)
Religious attendance			
Once a week or more	1.0 (Ref)	1.0 (Ref)	1.0 (Ref)
Once or twice a month	0.62 (0.33–1.16)	0.60 (0.32–1.13)	0.83 (0.41–1.67)
A few times a year or less	0.40 (0.25–0.65)	0.38 (0.24–0.61)	0.57 (0.35–0.93)
Never	0.26 (0.15–0.46)	0.25 (0.14–0.43)	0.54 (0.29–1.01)
Current type of health insurance			
Private, commercial, or employer based		1.0 (Ref)	1.0 (Ref)
Medicaid or Medicare		0.26 (0.10–0.65)	0.24 (0.10–0.61)
Other		0.61 (0.26–1.45)	0.71 (0.28–1.83)
None		0.76 (0.39–1.49)	0.97 (0.48–1.97)
Don't know		0.79 (0.13–4.89)	0.56 (0.11–2.76)
Political party			
Democrat			1.0 (Ref)
Republican			17.10 (9.12–32.09)
Independent/other			4.82 (2.48–9.36)
Not affiliated			2.94 (1.53–5.65)

Results of SAS multivariable survey logistic regression procedure (proc surveylogistic).

Respondents' disagreement with ACA is versus all other options (agree/neutral/don't know).

Wald chi-square $p < 0.05$ are indicated in bold text.

aOR, adjusted odds ratio; CI, 95% confidence interval.

the ACA, with high rates of disagreement among women who reported frequent religious service attendance. Unfortunately, our study did not include a robust set of religiosity or perceived norm measures, nor did it include items to assess women's self-described reasons, including the role of religion, for disagreement. Given that the links between political affiliation, religiosity, and women's acceptability of the ACA are likely complex, interrelated with other micro- and macro-level factors, including sociopolitical and cultural norms, and have potentially important implications for women's health service use,^{9,10,34,35} additional research focused on disentangling these relationships is warranted.

Other limitations of our study are noteworthy. While we used a prominent representative population-based panel and

random sampling and sampling weights, the response rate was not optimal; our results may not be fully generalizable to all U.S. women ages 18–55 years. Participants appeared to be older and more educated and privately insured than the greater population. Our outcome of ACA disagreement was based upon a single, general self-report measure, which likely did not capture the complexity of women's ACA attitudes, especially toward specific reproductive health policies. Moreover, it is not certain how women may have interpreted the item, and specifically what aspect of the ACA they may have disagreed with, for instance passage of the ACA or its provisions. Our attempt to clearly distinguish between differences in women's attitudes across response options of “disagree,” “neutral/don't know,” and “agree” resulted in

TABLE 4. HEALTH SERVICE AND REPRODUCTIVE HISTORY FACTORS RELATED TO WOMEN'S DISAGREEMENT WITH THE PASSAGE OF THE AFFORDABLE CARE ACT

	<i>aOR (95% CI)^a</i>
How often seen a health care provider in past 5 years	
More than once per year	1.0 (Ref)
About once per year	0.85 (0.54–1.35)
Less than once per year	1.58 (0.74–3.36)
Never	0.88 (0.35–2.20)
Ever had sexual intercourse with a male partner	
Yes	1.0 (Ref)
No	0.74 (0.34–1.58)
Ever used a hormonal birth control method	
Yes	1.0 (Ref)
No	0.89 (0.55–1.43)
Used a prescription birth control method during last sexual intercourse	
Yes	1.0 (Ref)
No	1.12 (0.68–1.89)
Ever experienced pregnancy	
Yes	1.0 (Ref)
No	0.73 (0.40–1.30)
Ever experienced childbirth	
Yes	1.0 (Ref)
No	0.99 (0.57–1.72)
Ever experienced an unintended pregnancy	
Yes	1.0 (Ref)
No	0.99 (0.57–1.71)

Results of SAS multivariable survey logistic regression procedure (proc surveylogistic).

Disagreement with passage of ACA is versus all other possibilities (agree/neutral/don't know).

^aEach model includes the individual attitude variable, adjusted for all variables in the full base model (age, ethnicity, highest level of education, marital status, income, religious attendance, current type of health insurance, and political party).

multiple statistical comparisons in our bivariate analysis. Finally, our study design was cross-sectional and conducted relatively early in the ACA implementation process. While these data provide a useful baseline estimate of women's ACA understanding and attitudes, they do not reflect changes in attitudes or behaviors over time, which is critically needed in order to monitor women's perceptions of and experiences with the health care reform and its impact on outcomes.

Conclusion

Our study extends the research on the ACA and women's health to identify social determinants of negative attitudes toward the ACA. Many groups of women who stand to benefit from the ACA appear to not know how they feel about its passage or disagree with it. Whether this means that too few women will take advantage of its health care provisions is not clear. Our findings suggest that greater "patient-centered" efforts are needed to engage women with the ACA and educate them on its women's health benefits, including correcting the prevalent misperceptions of its reproductive health provisions.^{32,33} Socially disadvantaged women may particularly benefit from such an approach.^{8,16–28} Research evaluating public health strategies which take into account

TABLE 5. ACA AND REPRODUCTIVE HEALTH CARE BELIEFS RELATED TO WOMEN'S DISAGREEMENT WITH THE AFFORDABLE CARE ACT

	<i>aOR (95% CI)^a</i>
Expected effect of ACA on ability to get preferred health care	
Improve ability	1.0 (Ref)
Worsen ability	60.64 (18.27–201.32)
No change	3.68 (1.10–12.32)
Don't know	1.92 (0.62–5.95)
Expect coverage changes for women's health exam (pap smear/pelvic)	
Yes	1.0 (Ref)
No	0.57 (0.28–1.18)
Don't know	0.66 (0.24–1.28)
Expect coverage changes for contraception	
Yes	1.0 (Ref)
No	0.82 (0.37–1.79)
Don't know	0.77 (0.39–1.51)
Expect breast exam coverage changes	
Yes	1.0 (Ref)
No	0.37 (0.16–0.86)
Don't know	0.56 (0.25–1.25)
Employers should provide health plans that cover the costs of contraception	
Yes	1.0 (Ref)
No	3.06 (1.90–4.94)
Don't know	0.86 (0.45–1.66)
Employers should provide health plans that cover the costs of abortion	
Yes	1.0 (Ref)
No	2.46 (1.32–4.62)
Don't know	0.80 (0.39–1.63)
Religious institutions should be exempt from contraceptive coverage	
Yes	1.0 (Ref)
No	0.22 (0.13–0.38)
Don't know	0.25 (0.14–0.46)
Government makes certain that birth control methods are safe	
Strongly agree or agree	1.0 (Ref)
Strongly disagree or disagree	2.71 (1.74–4.22)
Government uses poor/minority people to try out new birth control methods	
Strongly agree or agree	1.0 (Ref)
Strongly disagree or disagree	0.54 (0.30–0.98)
Government limiting minority/poor populations by encouraging birth control	
Strongly agree or agree	1.0 (Ref)
Strongly disagree or disagree	1.12 (0.65–1.95)
Drug companies don't care if birth control is safe	
Strongly agree or agree	1.0 (Ref)
Strongly disagree or disagree	0.73 (0.47–1.16)

Results of SAS multivariable survey logistic regression procedure (proc surveylogistic).

Disagreement is versus all other possibilities (agree/neutral/don't know).

Wald chi-square *p*-values < 0.05 are indicated in bold text.

^aEach model includes the individual attitude variable, adjusted for all variables in the full base model (age, ethnicity, highest level of education, marital status, income, religious attendance, current type of health insurance, and political party) and reproductive history covariates presented in Table 4.

women's perspectives on the factors that influence their understanding and acceptance of the ACA and reproductive health policy, as well as their engagement with the health care system, is warranted. Ultimately, we must progress beyond the political and religious rhetoric that appears to dominate ACA opinion and shape women's understanding and perceptions of health care reform in order to determine whether this landmark health policy achievement will improve health care access and outcomes and reduce health disparities for women in the United States.

Acknowledgments

Our work was supported by a National Institute of Child Health and Human Development Building Interdisciplinary Research Careers in Women's Health K-12 Career Development award number K12HD001438 (K.S.H.; principle investigator, T.R.B. Johnson) and by the Program on Women's Health Care Effectiveness Research in the Department of Obstetrics and Gynecology at the University of Michigan (director, V.K.D.). K.S.H., D.P., and V.K.D. had full access to all the data in the study and take responsibility for the integrity of the data and the accuracy of the data analysis.

Author Disclosure Statement

K.S.H., S.P.N., and D.P. have no conflicts of interest to disclose relevant to this manuscript. V.K.D. received funding from McNeil Consumer Healthcare to participate on an advisory committee held in December 2012, which was unrelated to this study, and is also a consultant for Bayer Pharmaceuticals.

References

1. Quadagno J. Interest group influence on the Patient Protection and Affordability Act of 2010: Winners and losers in the health care reform debate. *J Health Polit Policy Law* 2011;36:449–453
2. Institute of Medicine. *Clinical Preventive Services for Women: Closing the Gaps*. Washington, DC: The National Academies Press, 2011.
3. Henry J. Kaiser Family Foundation. Kaiser health tracking poll: December 2013. Menlo Park, CA: Kaiser Family Foundation. Available online at <http://kff.org/health-reform/poll-finding/kaiser-health-tracking-poll-december-2013> Accessed January 23, 2014.
4. Henry J. Kaiser Family Foundation. Kaiser health tracking Poll: March 2014. Menlo Park, CA. Available online at <http://kff.org/health-reform/poll-finding/kaiser-health-tracking-poll-march-2014> Accessed April 4, 2014.
5. Gross W, Stark TH, Krosnick J, et al. Americans' attitudes toward the Affordable Care Act: Would better public understanding increase or decrease favorability? Princeton, NJ: Robert Wood Johnson Foundation Inc., 2012.
6. Bagley N. The legality of delaying key elements of the ACA. *N Engl J Med* 2014;370:1967–1969.
7. Tieman J. Health reform and the Affordable Care Act: Public perception does not match reality. *Health Prog* 2011;92:85.
8. Hall KS, Fendrick AM, Zochowski M, Dalton VK. Women's health and the Affordable Care Act: high hopes versus harsh realities? *Am J Public Health* 2014;104:e10–13.
9. Patton E, Hall KS, Dalton VK. Religion and women's attitudes toward reproductive health policy: Implications for the Affordable Care Act. *Contraception* 2015;91:513–519.
10. McCruden P. The Affordable Care Act and community benefit: A mandate Catholic health care can (partly) embrace. *Kennedy Inst Ethics J* 2013;23:229–248.
11. Sonfield A. Contraceptive coverage at the U.S. Supreme Court: Countering the rhetoric with evidence. *Guttmacher Inst Policy Rev* 2014;17:1–7.
12. Gee RE, Brindis CD, Diaz A, et al. Recommendations of the IOM clinical preventive services for women committee: Implications for obstetricians and gynecologists. *Curr Opin Obstet Gynecol* 2011;23:471–480.
13. Moniz MH, Davis MM, Chang T. Attitudes about mandated coverage of birth control medication and other health benefits in a US national sample. *JAMA* 25;311:2539–2541.
14. Grande D, Gollust SE, Asch DA. Polling analysis: Public support for health reform was broader than reported and depended on how proposals were framed. *Health Aff (Millwood)*. 2011;30:1242–1249.
15. Casscells SW, Critchley HP, Herbst-Greer SM, Kaiser L, Zogby J. Americans on health care reform: Results from polls conducted with Zogby International, Inc. *Trans Am Clin Climatol Assoc* 2010;121:267–279.
16. Hall KS, Johnson TRBJ, Dalton VK. Social disparities in women's health service utilization in the United States: A population-based analysis. *Ann Epidemiol* 2014;24:135–143.
17. Finer LB, Henshaw SK. Disparities in rates of unintended pregnancy in the United States, 1994 and 2001. *Persp Sex Reproduc Health* 2006;38:90–96.
18. Dehlendorf C, Rodriguez MI, Levy K, et al. Disparities in family planning. *Am J Obstet Gynecol* 2010;202:214–220.
19. Kost K, Finer LB, Singh S. Variation in state unintended pregnancy rates in the United States. *Persp Reprod Health* 2012;44:57–64.
20. Ventura S J, Curtin SC, Abma JC, Henshaw SK. Estimated pregnancy rates and rates of pregnancy outcomes for the United States, 1990–2008. *National Vital Stat Reports* 2012;60:1–21.
21. Gavin L, MacKay AP, Brown K, et al. Sexual and reproductive health of persons aged 10–24 years—United States, 2002–2007. *MMWR Surveill Summ*. 2009;58:1–58.
22. Abma JC, Martinez GM, Copen CE. Teenagers in the United States: Sexual activity, contraceptive use, and childbearing, National Survey of Family Growth 2006–2008. *Vital Health Stat* 2010;23:1–47.
23. Hall K, Moreau C, Trussell J. Discouraging trends in reproductive health service use among adolescent and young adult women in the United States: An analysis of data from the National Survey of Family Growth, 2002 to 2008. *Hum Reprod* 2011;26:2541–2548.
24. Potter J, Trussell J, Moreau C. Trends and determinants of reproductive health service use among young women in the USA. *Human Reprod* 2009;24:3010–3018.
25. Hall K, Moreau C, Trussell J. Determinants of and disparities in reproductive health service use among adolescent and young adult women in the United States: An analysis of data from the National Survey of Family Growth, 2002 to 2008. *Am J Public Health* 2011;102:359–367.

26. Mosher WD, Martinez GM, Chandra A, et al. Use of contraception and use of family planning services in the United States: 1982–2002. *Vital Health Stat* 2004;350: 1–46.
27. Frost JJ, Henshaw SK, Sonfield A. Contraceptive needs and services: National and state data, 2008 update. New York: Guttmacher Institute, 2010.
28. Frost JJ. Trends in women's use of sexual and reproductive health care services, 1995–2002. *Am J Public Health* 2008;98:1814–1817.
29. Abraham JM. How might the Affordable Care Act's coverage expansion provisions influence demand for medical care? *Milbank Q* 2014;92:63–87.
30. Brodie M, Deane C, Cho S. Regional variations in public opinion on the affordable care act. *J Health Polit Policy Law* 2011;36:1097–1103.
31. Henderson M, Hillygus DS. The Dynamics Of Health Care Opinion, 2008–2010: Partisanship, self-interest, and racial resentment. *J Health Polit, Policy Law* 2011;36:945–960.
32. Kreuter MW, McBride TD, Caburnay CA, et al. What can health communication science offer for ACA implementation? Five evidence-informed strategies for expanding Medicaid enrollment. *Milbank Q* 2014;92:40–62.
33. Levesque JF, Harris MF, Russell G. Patient-centred access to health care: Conceptualizing access at the interface of health systems and populations. *Intern J Equity Health* 2013;12:1–9.
34. Jost TS. Religious freedom and women's health—the litigation on contraception. *N Engl J Med* 2013;368:4–6.
35. Hall KS, Moreau C, Trussell J. Lower use of sexual and reproductive health services among women with frequent religious participation, regardless of sexual experience. *J Womens Health (Larchmt)* 2012;Jul;21:739–47.

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