Changes in State Prescription Contraceptive Mandates For Insurers: The Effect on Women's Contraceptive Use

CONTEXT: Access to effective contraceptives is critical to reducing levels of unintended childbearing in the United States. Since 1998, more than half the states have passed legislation requiring insurers that cover prescription drugs to cover prescription contraceptives approved by the Food and Drug Administration. An assessment of the impact of these laws on women's contraceptive use is needed to determine whether such policies are effective.

METHODS: Information was collected on state contraceptive coverage policies, and contraceptive use data among women at risk of unintended pregnancy were drawn from Behavioral Risk Factor Surveillance System surveys conducted between 1998 and 2010. Logit regression analysis was used to calculate the marginal effects of state contraceptive coverage laws on insured and uninsured women's use of prescription methods.

RESULTS: Insured women who lived in a state with a contraceptive coverage law were 5% more likely than their counterparts in states without such laws to use an effective method (i.e., a prescription method, condoms or sterilization). Among women who used such methods, those in contraceptive coverage states were 5% more likely than women in other states to use any prescription method, and 4% more likely to use the pill. No associations were found between contraceptive mandates and method use by uninsured women. Among both users and nonusers, contraceptive coverage was associated with a 5% increase in pill use.

CONCLUSIONS: Contraceptive coverage mandates appear to play a role in increasing the use of prescription contraceptives among insured women, and hence may help to reduce the numbers of unintended pregnancies.

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Almost half of all pregnancies in the United States are unintended,[1] and unintended pregnancy is associated with postponing prenatal care, smoking while pregnant and declining to breast-feed.[2] Access to effective contraceptives is critical in reducing unintended pregnancy rates. The Affordable Care Act includes a policy that increases access to prescription birth control for insured women by requiring nearly all health insurance plans to cover contraceptives approved by the Food and Drug Administration (FDA) without out-of-pocket costs to patients. However, whether mandating such coverage will affect women's use of prescription contraceptives is unknown. Notably, prior to the 2010 passage of the Act, 25 states had passed legislation that requires insurers that cover prescription drugs to also cover FDA-approved prescription contraceptives.[3] While such legislation is not identical to the terms of the Affordable Care Act, it is nonetheless a related policy that lowers the cost of contraceptives for some women.

As of 1993, almost all private insurers covered prescription drugs, yet only about a third offered coverage for oral contraceptives.[3] By 2002, more than nine in 10 insurers offering large-group plans covered the pill, IUD and injectable.[4] Yet little is known about coverage by small-group or individual plans. The Equity in Prescription Insurance and Contraceptive Coverage Act was first introduced in the U.S. Senate in 1997 as a reaction to disparities in insurance coverage of contraceptives, and it has been reintroduced multiple times in subsequent years, but has never gained passage.[5–7] If passed, this legislation would mandate that all insurance plans covering prescription drugs also cover FDA-approved contraceptives.[5,8,9] However, a federal requirement for insurance coverage of prescription contraceptives did not become law until the 2010 passage of the Affordable Care Act.[5,8–10]

Multiple questions arise when evaluating the effectiveness of contraceptive coverage laws in increasing access to prescription contraceptives for insured women. First, how does insurance coverage change women's contraceptive use overall? Second, how does contraceptive coverage legislation affect coverage of prescription contraceptives (i.e., do insurers comply with the law)? Finally, how do these policies affect women's use of prescription contraceptives? The first two questions have been addressed in the literature; however, the last has yet to be comprehensively explored.

Regarding the first question, research has established that access to insurance coverage is associated with increases in women's use of prescription contraceptives.[11,12] In fact, one study found that women aged 18–44 who had private or public health insurance were 30% more likely than their uninsured counterparts to report prescription contraceptive use.[12] In a study using National Survey of Family Growth data from women at risk for unintended pregnancy,

privately insured women in 2002 were 6% more likely than those in 1995 to use contraceptives.[13] This increase was found only among women with private insurance, and the authors suggest that it was possibly attributable to state contraceptive coverage requirements.

To address the question of how legislation affects coverage of prescription methods, we need to consider such coverage over time. A 1993 Guttmacher Institute survey found that almost all non-HMO health insurance plans covered prescription drugs; however, about half did not cover prescription contraceptives, and just one-third included oral contraceptives.[14] Additionally, although HMO plans were more likely to cover contraceptives than were other types of health plans, HMOs were still more likely to cover surgical procedures, such as sterilization and abortion, than they were to cover contraceptives.[4,14] As of April 2012, a total of 28 states required contraceptive coverage by insurance plans that offer any prescription drug coverage.[3]

This increase in state contraceptive coverage mandates seems to have led to increased coverage of contraceptives. Another Guttmacher survey, in 2002, found that 86% of employment-based insurance plans covered the five most commonly used prescription contraceptive methods.[4] Furthermore, plans in states with mandates were more likely than those in states without mandates to cover prescription contraceptives. More specifically, 30% of the increase in coverage of oral contraceptives between the 1993 and 2002 surveys was attributed to state mandates.

To our knowledge, only one study has evaluated the third question—whether contraceptive coverage legislation actually increases women's use of prescription methods. Using data from the National Survey of Family Growth, Magnusson et al.[15] found that privately insured women in states with contraceptive coverage mandates were more likely than their counterparts in nonmandate states to exhibit consistent contraceptive use.

The present study assesses whether state contraceptive coverage policies are associated with the use of effective contraceptives in general, as well as with the use of specific prescription methods.

METHODS
Data
Our primary source of data on state laws requiring contraceptive coverage was the National Conference of State Legislatures, which tracks changes to laws in a number of policy areas, including reproductive health.[10] We also used data provided by the Guttmacher Institute on important changes to state contraceptive access laws to confirm the information provided by the National Conference.[16] We defined a state as having a contraceptive coverage policy if it required that insurers cover FDA-approved contraception if any other prescription drugs were covered.

We used data from the Behavioral Risk Factor Surveillance System (BRFSS) surveys, conducted by the Centers for Disease Control and Prevention. BRFSS is a state-based, ongoing telephone survey that collects information on health conditions, risk behaviors and preventive health care practices among men and women aged 18 or older. The survey, which yields a nationally representative sample, consists of two components—a set of core questions and optional modules that cover topic areas of particular interest to the states. While questions on the optional modules are consistent across states, not all states include all modules, and not all modules are offered each year. We used data from two key questions that the optional family planning module asks women: "Are you doing anything to keep from getting pregnant?" and "What method of prevention are you using?" These questions were asked by some states in 1998, 1999, 2000, 2002, 2004, 2006 and 2010.

To assess the impact of contraceptive coverage legislation using individual response data, we employed what is known as a difference-in-difference estimator. This method, commonly used in economics and policy analysis, compares behavioral changes for individuals in a treatment group (e.g., people in states with contraceptive coverage) before and after treatment with changes in the behavior of individuals in a control group that is not exposed to the treatment (e.g., people in states without such coverage).[17] Numerous studies have examined the impact of policy exposure using this approach. For example, Kearney and Levine explored state-level expansion of Medicaid family planning services;[18] their treatment states were those that had implemented certain waivers, and their control states were those that had never done so (they excluded states that had always had waivers). We followed this general framework and compared differences between states that had adopted contraceptive coverage mandates and states that had never had such mandates.

Ten states used the family planning module in at least four years, and we selected our study states from this set. Two states—Delaware and Iowa—adopted contraceptive coverage legislation during the observed time frame (both in 2000); respondents in these states served as our treatment group. Three states—Kentucky, Nebraska and South Dakota—never adopted such legislation; respondents in these states served as our control group. Of the remaining states, four (Arkansas, Georgia, Maryland and North Carolina) had always had contraceptive coverage during the years they fielded the module, and one (Wisconsin) had ambiguous policy implementation processes. Thus, data from these states were not well suited for use in the control group.

We limited our analysis to women who were at risk for unintended pregnancy, defined as sexually active 18–44-year-olds who were not pregnant and who did not want to get pregnant. Although this group is often defined as women aged 13–44, the BRFSS is limited to respondents who are 18 or older. Additionally, unlike the definition of "at risk" used in other studies, our definition was not dependent on birth control use, since this was the behavior we modeled.

Measures
We considered only the more effective birth control methods—prescription contraceptives (the pill, IUD, implant, injectable, ring, patch, diaphragm and emergency contraceptives),

condoms and sterilization. Women's responses to the question "What are you and your partner doing now to keep from getting pregnant?" were assessed for five contraceptive categories: any effective method, any prescription method, the pill, any prescription method other than the pill, and condoms. The main independent variable was whether the respondent had lived in a state after contraceptive coverage had been mandated (i.e., in Delaware or Iowa).

Because contraceptive behaviors are likely related to various demographic, social and economic variables, we considered respondents' race or ethnicity, education level, relationship status (married, cohabiting or neither), age, employment status and income level (using eight categories, ranging from less than $10,000 to $75,000 or more), and whether they smoked and had private health insurance.

Analysis

Since all of our contraceptive use outcomes were dichotomous, we estimated each model using logit regression analysis. To account for generalized heteroskedasticity (arising from correlations within a state or within a survey year, for example), we used robust (Huber-White) standard errors. All of respondents' social and demographic characteristics, as well as state of residence and survey year, were controlled for in the regression analyses.

We estimated two sets of regressions: one for insured women and a second for uninsured women. The regressions for the insured sample tested the relationship between contraceptive coverage policy and birth control use among the population of women who were targeted by the policy. The models for the uninsured sample provided a falsification test, for we did not expect these women to have been affected by the policy.

We present the results as marginal effects, which reflect the impact of a one-unit change in the independent variable, or of being in a group other than the reference group, on the probability of a positive outcome. For example, the marginal effect of the contraceptive coverage variable in the "any effective method" logit regression would reflect the percentage change in the probability of a woman's reporting the use of any effective method after a state's contraceptive coverage policy had been implemented. For ease of comparison and interpretation, the marginal effects were calculated at the means of the samples. All marginal effects were calculated using the *margins* command in Stata 12.

Our results first show the effect of coverage mandates on use of any effective method among all women, and then show—conditional on use of such a method—the effect of mandates on use of any prescription method, the pill, any other prescription method or condoms. None of the conditional effects shows the total (or unconditional) impact of mandates on women's specific birth control choices. For example, the marginal effect of contraceptive coverage legislation on pill use represents the change in the probability of such use among women who used some form of effective contraception; it does not reflect the effect of mandates on pill use among all women in a state. Consequently, we

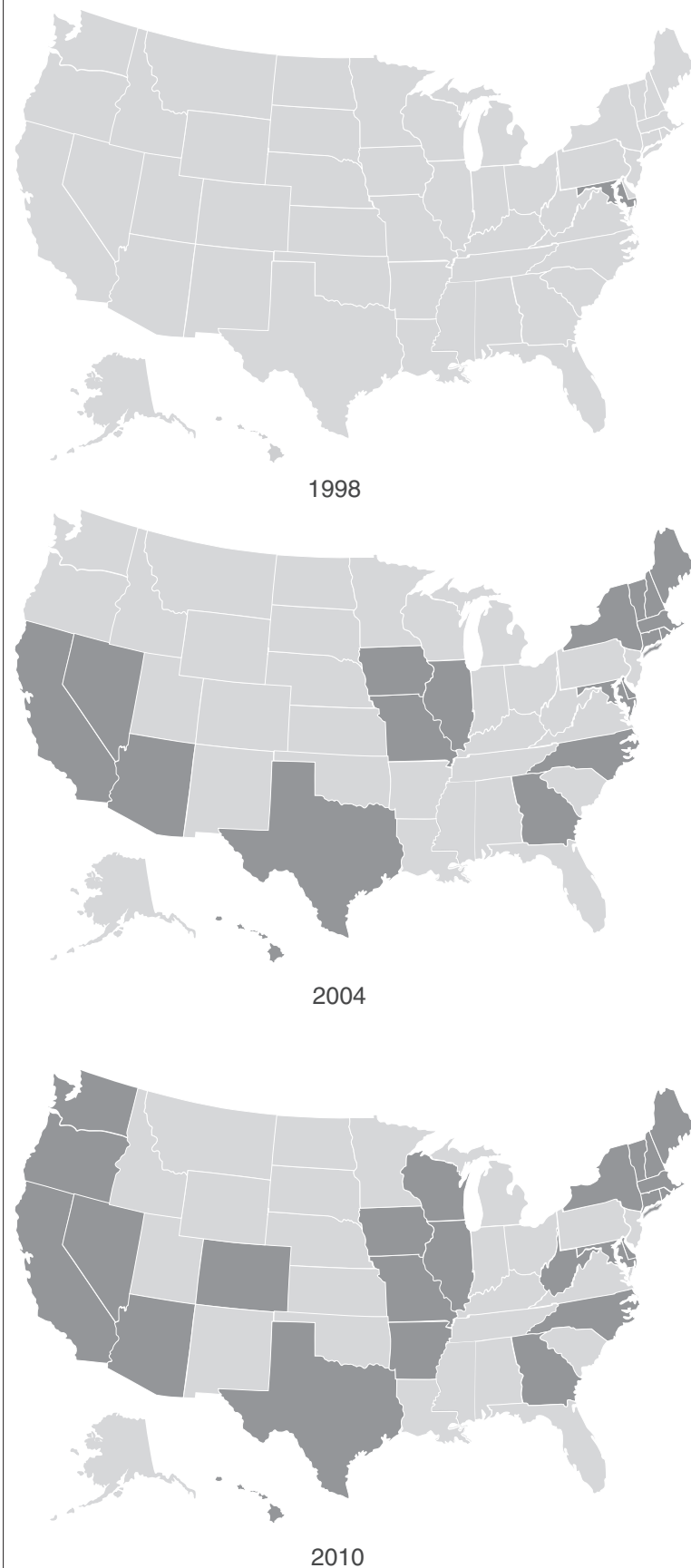**FIGURE 1. States with a contraceptive coverage requirement, selected years**

1998

2004

2010

TABLE 1. Selected characteristics of women at risk for unintended pregnancy, Behavioral Risk Factor Surveillance System, 1998–2010

Characteristic	% or mean (N=20,256)
Any contraceptive use	78 (41)
Type of contraceptive used†	
Any prescription method	42 (49)
Pill	34 (47)
Other	8 (28)
Condom	13 (33)
Sterilization	45 (50)
Lived in Delaware or Iowa after contraceptive coverage mandated	21 (41)
Race/ethnicity	
White	42 (49)
Black	2 (13)
Latino	3 (17)
Other/missing	54 (50)
Education	
≥college	29 (45)
Some college	33 (47)
High school	31 (46)
<high school	7 (26)
Relationship status	
Married	65 (48)
Cohabiting	3 (18)
Neither	31 (46)
Mean age	33 (7)
Employed	74 (44)
Mean income (range, 1–8)‡	5 (2)
Smokes	29 (46)
Has health insurance	85 (36)
State of residence	
Delaware	12 (33)
Iowa	15 (36)
Kentucky	35 (48)
Nebraska	18 (38)
South Dakota	20 (40)
Year	
1998	15 (36)
1999	14 (34)
2000	17 (38)
2002	19 (40)
2004	25 (43)
2006	4 (19)
2010	7 (25)

†Among women using an effective method. ‡Income categories ranged from less than $10,000 to $75,000 or more; the fifth category was $25,000–34,999. *Notes:* Women were considered to be at risk for unintended pregnancy if they were sexually active, aged 18–44 and not pregnant, and did not want to get pregnant. Unless otherwise noted, data are percentages; figures in parentheses are standard deviations. Percentage distributions may not total 100 because of rounding.

also calculated the net (or unconditional) marginal effect of contraceptive coverage on the probability that an insured woman at risk of unintended pregnancy would switch from no birth control use to the pill. We focused on this result because ultimately, contraceptive coverage seemed to be affecting only pill use (details are available from the authors). Using this unconditional impact of the legislation

on pill use, we then calculated the number of unintended pregnancies that were avoided as a result of implementation of contraceptive coverage legislation.

RESULTS

In 1998, only one state—Maryland—had a contraceptive coverage requirement. By 2004, the number of states that had adopted such policies had increased to 19; and by 2010, it had grown to 25 (Figure 1).

The total sample consisted of 20,256 women at risk; of these, 15,785, or 78%, were using an effective method of birth control (Table 1). Among those using such a method, 42% were using a prescription contraceptive (34% the pill and 8% another prescription method), 13% were using condoms and 45% were sterilized. Twenty-one percent of women lived in Delaware or Iowa after contraceptive coverage laws were passed. Forty-two percent of women were white, 2% were black and 3% were Latino; 54% were of other race or ethnicity or did not report this information. Twenty-nine percent had graduated from college, 33% had attended some college, 31% had graduated from high school and 7% did not have a high school diploma. Sixty-five percent of respondents were married, 3% were cohabiting and 31% were neither married nor cohabiting. Women's average age was 33, and three-quarters were employed; their mean income was in the $25,000–34,999 category. Three in 10 women smoked, and more than eight in 10 had private health insurance.

In the regression analyses conducted among insured women, those who lived in Delaware or Iowa after contraceptive coverage legislation was enacted were 5% more likely than women in states without such laws to report using any effective contraceptive method (Table 2). Among women who were using an effective method, those living in Delaware or Iowa under the coverage policy were 5% more likely than their counterparts in other states to be using any prescription method. This finding appears to be attributable to an increase in pill use, because we found a 4% increase in women's probability of using the pill, but no change in use of other prescription methods.

We found no evidence that contraceptive coverage legislation influenced birth control use among uninsured women (Table 3). This provided further support that our analysis for insured women captured the effect of the policy change, rather than some general state-level trends.

In analyses including all women (not shown), we found that mandated contraceptive coverage resulted in a 5% increase in pill use—slightly more than the 4% increase among women who were using any effective birth control method. This estimate captures the effect of contraceptive coverage on both women who switch from no birth control to the pill and those who switch from some other effective method to the pill.

Next, we calculated the expected change in the number of unintended pregnancies attributable to increased pill use in contraceptive coverage states. Given that 78% of the 15,395 insured women in our regression sample were using an

TABLE 2. Results of logit regression analysis estimating marginal effects of selected characteristics on the change in insured women's probability of using an effective contraceptive method

Characteristic	Overall use	Use among women using an effective method			
		Any prescription method	Pill	Other prescription method	Condom
Lived in Delaware or Iowa after contraceptive coverage mandated	0.05 (2.68)***	0.05 (2.06)**	0.04 (1.97)**	–0.004 (–0.28)	–0.03 (–1.57)
Race/ethnicity					
White	ref	ref	ref	ref	ref
Black	–0.04 (–1.64)	–0.14 (–4.21)***	–0.17 (–4.88)***	0.03 (1.89)*	0.05 (2.49)**
Latino	–0.04 (–1.52)	–0.05 (–1.57)	–0.10 (–3.01)***	0.04 (2.84)***	0.06 (2.78)***
Other/missing	–0.04 (–1.61)	–0.05 (–1.45)	–0.08 (–2.57)**	0.03 (2.14)**	0.03 (1.41)
Education					
≥college	ref	ref	ref	ref	ref
Some college	0.005 (0.55)	–0.07 (–7.49)***	–0.08 (–8.81)***	0.01 (1.62)	–0.03 (–4.49)***
High school	0.004 (0.44)	–0.12 (–10.56)***	–0.12 (–11.55)***	0.01 (0.95)	–0.05 (–5.94)***
<high school	0.01 (0.42)	–0.20 (–9.02)***	–0.23 (–9.61)***	0.01 (1.11)	–0.06 (–3.84)***
Relationship status					
Married	0.005 (0.52)	–0.13 (–12.12)***	–0.11 (–10.74)***	–0.01 (–1.42)	–0.01 (–1.45)
Cohabiting	0.01 (0.32)	0.05 (1.70)*	–0.001 (–0.03)	0.02 (1.83)*	–0.02 (–1.29)
Neither	ref	ref	ref	ref	ref
Age	–0.005 (–9.20)***	–0.03 (–50.90)***	–0.02 (–40.73)***	–0.005 (–11.34)***	–0.005 (–10.07)***
Employed	0.02 (1.94)*	0.06 (6.08)***	0.07 (6.63)***	0.001 (0.17)	–0.02 (–2.58)***
Income	0.003 (1.51)	0.01 (2.94)***	0.01 (4.31)***	–0.003 (–2.21)**	0.001 (0.36)
Smokes	–0.01 (–1.17)	–0.09 (–9.58)***	–0.12 (–11.90)***	0.02 (3.73)***	–0.005 (–0.67)
State of residence					
Delaware	–0.10 (–5.05)***	–0.09 (–3.70)***	–0.10 (–4.06)***	0.01 (0.83)	0.04 (2.16)**
Iowa	–0.06 (–3.15)***	–0.08 (–3.41)***	–0.09 (–4.11)***	0.02 (1.32)	0.04 (2.25)**
Kentucky	–0.01 (–1.23)	–0.06 (–4.60)***	–0.03 (–2.38)**	–0.03 (–3.45)***	–0.0003 (–0.03)
Nebraska	–0.04 (–3.45)***	–0.03 (–1.97)**	–0.03 (–2.12)**	0.004 (0.45)	0.02 (2.24)**
South Dakota	ref	ref	ref	ref	ref
Year					
1998	–0.04 (–1.49)	–0.04 (–1.12)	0.01 (0.16)	–0.05 (–2.43)**	0.004 (0.14)
1999	–0.07 (–2.59)***	–0.05 (–1.43)	–0.02 (–0.58)	–0.03 (–1.52)	0.01 (0.49)
2000	–0.08 (–3.05)***	–0.08 (–2.17)**	–0.03 (–0.92)	–0.04 (–2.38)**	0.02 (0.69)
2002	–0.10 (–6.77)***	–0.002 (–0.09)	0.07 (3.49)***	–0.06 (–5.63)***	–0.03 (–1.90)*
2004	0.003 (0.21)	–0.01 (–0.32)	0.03 (1.52)	–0.03 (–2.96)***	–0.02 (–1.20)
2006	–0.01 (–0.38)	0.004 (0.15)	0.03 (1.09)	–0.02 (–1.14)	–0.03 (–1.25)
2010	ref	ref	ref	ref	ref

*p<.05. **p<.01. ***p<.001. *Notes:* Models controlled for all listed independent variables. Figures in parentheses are standard errors. ref=reference group.

effective method, this implies that 3,402 women were not using such a method. Assuming that 85% of women using no effective method would have become pregnant within a year,[19] an estimated 2,892 of the women in our sample who were not using effective birth control before the mandate would have become pregnant. To calculate the increase in the number of women using the pill as a result of contraceptive coverage legislation, we multiplied the number of insured women in our sample (15,395) by the unconditional effect of contraceptive coverage legislation on pill use (0.051), which yielded 785 additional pill users. Thus, the number of women who were not using the pill before the implementation of contraceptive coverage would have fallen from 3,402 to 2,617. Again assuming an 85% pregnancy rate among women using no effective method, we calculate that 2,224 women would have had unintended pregnancies—668 fewer than would have done so in the absence of the coverage mandate, assuming no contraceptive failure.

However, because the failure rate of the pill with typical use is 8%,[19] the number of avoided unintended pregnancies would drop by 63 (785×0.08) to 605. This number is equivalent to about 4,000 avoided unintended pregnancies per 100,000 sexually active women.

DISCUSSION

Our analysis has shown that contraceptive coverage legislation passed in Delaware and Iowa in 2000 appears to have had beneficial impacts on women's prescription contraceptive use in those states. Insured women were more likely to use any form of effective birth control when they lived in a state with a contraceptive coverage law; however, most of this increased use involved the pill. The latter finding was not surprising, given that the pill was the most common form of prescription method reported in our sample. One possible unintended consequence of contraceptive coverage legislation is that by lowering the cost of the pill relative

TABLE 3. Results of logit regression analysis estimating marginal effects of selected characteristics on the change in uninsured women's probability of using an effective contraceptive method

Characteristic	Overall use	Use among women using an effective method			
		Any prescription method	Pill	Other prescription method	Condom
Lived in Delaware or Iowa after contraceptive coverage mandated	0.08 (1.53)	0.02 (0.31)	–0.03 (–0.56)	0.06 (1.21)	0.05 (1.02)
Race/ethnicity					ref
White	ref	ref	ref	ref	
Black	–0.02 (–0.37)	–0.15 (–2.26)**	–0.11 (–1.75)*	–0.05 (–0.80)	0.07 (1.63)
Latino	–0.02 (–0.32)	0.07 (0.99)	–0.11 (–1.82)*	0.14 (4.26)***	–0.03 (–0.50)
Other/missing	–0.01 (–0.25)	–0.03 (–0.55)	–0.15 (–2.53)**	0.08 (2.56)**	0.01 (0.32)
Education					
≥college	ref	ref	ref	ref	ref
Some college	0.01 (0.46)	–0.07 (–2.02)**	–0.06 (–2.10)**	–0.004 (–0.19)	–0.05 (–2.16)**
High school	0.01 (0.23)	–0.08 (–2.30)**	–0.07 (–2.29)**	–0.01 (–0.44)	–0.05 (–2.10)**
<high school	0.0003 (0.01)	–0.15 (–3.98)***	–0.18 (–4.93)***	0.01 (0.47)	–0.03 (–1.18)
Relationship status					
Married	–0.01 (–0.74)	–0.07 (–3.13)***	–0.05 (–2.32)**	–0.02 (–1.26)	–0.02 (–1.19)
Cohabiting	–0.03 (–0.74)	0.07 (1.83)*	0.03 (0.92)	0.03 (1.17)	–0.06 (–1.78)*
Neither	ref	ref	ref	ref	ref
Age	–0.003 (–2.85)***	–0.02 (–22.09)***	–0.02 (–15.67)***	–0.01 (–6.75)***	–0.01 (–4.82)***
Employed	0.02 (0.89)	0.04 (2.11)**	0.05 (2.73)***	–0.01 (–0.64)	–0.04 (–2.72)***
Income	0.002 (0.46)	–0.001 (–0.15)	–0.01 (–1.07)	0.01 (1.57)	0.005 (1.12)
Smokes	0.0002 (0.01)	–0.11 (–5.61)***	–0.14 (–7.72)***	0.04 (2.73)***	0.01 (0.37)
State of residence					
Delaware	–0.12 (–2.19)**	–0.08 (–1.28)	–0.0004 (–0.01)	–0.08 (–1.76)*	–0.05 (–1.04)
Iowa	–0.08 (–1.58)	–0.05 (–0.79)	–0.01 (–0.17)	–0.05 (–0.97)	–0.03 (–0.61)
Kentucky	0.05 (2.05)**	–0.04 (–1.59)	–0.01 (–0.47)	–0.03 (–1.48)	–0.02 (–0.83)
Nebraska	–0.03 (–1.17)	–0.02 (–0.69)	–0.004 (–0.11)	–0.02 (–0.77)	0.003 (0.10)
South Dakota	ref	ref	ref	ref	ref
Year					
1998	0.01 (0.09)	0.001 (0.02)	–0.10 (–1.36)	0.07 (1.51)	0.02 (0.35)
1999	–0.04 (–0.65)	–0.01 (–0.16)	–0.09 (–1.32)	0.05 (1.11)	0.02 (0.39)
2000	–0.05 (–0.98)	–0.02 (–0.32)	–0.11 (–1.57)	0.05 (1.26)	–0.02 (–0.40)
2002	–0.04 (–1.13)	0.04 (0.95)	0.06 (1.48)	–0.02 (–0.69)	–0.02 (–0.60)
2004	0.05 (1.26)	–0.03 (–0.71)	–0.04 (–0.85)	0.01 (0.24)	0.005 (0.15)
2006	0.04 (0.81)	–0.01 (–0.19)	0.03 (0.65)	–0.06 (–1.26)	0.02 (0.51)
2010	ref	ref	ref	ref	ref

*p<.05. **p<.01. ***p<.001. *Notes:* Models controlled for all listed independent variables. Figures in parentheses are standard errors. ref=reference group.

to that of condoms, it might have induced some women to shift from condoms to the pill. While this would be a shift from a less effective method to a more effective one, it would reduce the net change in pregnancy we estimated from total birth control use and would decrease protection against STDs (against which the pill in ineffective). However, we did not find any indication that contraceptive coverage legislation was associated with reductions in condom use. Thus, it appears that such legislation primarily functions by increasing pill use without lowering the use of other methods.

While our study examined state legislation that requires insurance plans to cover prescription contraceptive methods as they do any other prescription, the findings can inform what could be expected from the Affordable Care Act. The state policies we studied lowered contraceptive costs from the full retail price to the copayment amount, and were associated with a 5% increase in the use of any

prescription method. Notably, the Affordable Care Act requires insurers to cover the full cost of the prescription, and so women will have no out-of-pocket expenses. Thus, our estimates should be viewed as a lower bound of the behavioral change that can be expected once the contraceptive coverage of the Act goes into full effect.

This study has several limitations. The Employee Retirement Income Security Act of 1974 allows firms that self-insure (i.e., that pay for their employees' health care costs directly) to be exempted from state insurance regulations; hence some insured women in our sample were not affected by contraceptive coverage mandates. Moreover, we did not explore the finer details of such laws (e.g., whether they included exemptions for religious employers). In addition, some women who had insurance through companies that self-insured may have already been covered for prescription contraceptives. For this reason, our findings

may underestimate the effect of contraceptive coverage laws on use of effective methods.

Overall, this analysis supports contraceptive coverage legislation as a mechanism for increasing the use of effective contraceptive methods among insured women. Given the potential for negative outcomes associated with unintended pregnancies, contraceptive coverage policies may play an important role in preventing pregnancies by increasing women's access to prescription contraceptive methods. The present study represents a first step in evaluating the potential impacts of these policies.

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