

Association of 12-Month Contraceptive Supply Policy and Months of Oral Contraception Prescribed by Obstetrics and Gynecology Physicians: An Exploratory Cross-Sectional Study

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Abstract

Objective

This study sought to determine if there was a difference in the months of oral contraception prescribed by physicians living in U.S. states with a 12-month supply policy compared to physicians in states without a policy.

Methods

We conducted an exploratory descriptive study using a convenience sample of Obstetrics & Gynecology resident physicians (n=275) in the United States. Standard bivariate analyses were used to compare the difference between groups.

Results

Few physicians in both groups (3.8% with a policy and 1.4% without a policy) routinely prescribed a 12-month supply of contraception. The mean coverage prescribed by providers in states with and without a policy was 2.81 and 2.07 months ($p < 0.05$).

Conclusions

The majority of physicians were unaware of 12-month contraceptive supply policies and unable to correctly write a prescription for 12-months of contraception, regardless of whether they lived in a state with a 12-month contraceptive supply policy. Physician education may be needed to effectively implement 12-month contraceptive supply policies.

I. Background

Access to contraception is an integral part of high-quality family planning care (1). In the United States (U.S.), oral contraceptives (OCs) are the most common nonpermanent method of contraception (2). To be effective, OCs should be taken continuously and with perfect use are 99% effective in preventing pregnancy (3). Providing more pill packs at a single time makes it easier for individuals to take them continuously without unintended breaks (4–6).

Seventeen states have passed legislation requiring insurers to cover dispensation of a full 12-month supply of contraception (7). The policy is designed to distribute 12 months of coverage, or 365 pills, with a single refill. Such policies are linked to improved contraception continuation and reductions in unintended pregnancy (4, 6). However, most individuals (70 percent) still receive less than a three-month supply of contraception at a time (5).

For these policies to be effective, insurance companies must comply with the law, and prescribers need to write for a 12-month supply of contraception. The objective of this exploratory study was to determine if there was a difference in the months of oral contraception prescribed by Obstetrics and Gynecology (OB/GYN) resident physicians living in U.S. states with 12-month supply policies as compared with physicians living in states without the policy. We hypothesized that physicians living in states with 12-month contraceptive supply policies would be more likely to prescribe higher amounts of OC at a single time.

ii. Methods

We conducted a cross-sectional survey of a convenience sample of OB/GYN residents and fellows in the U.S. The survey was distributed electronically via educational listservs that included current U.S. OB/GYN residents and fellows. Our primary outcome was the months of coverage prescribed. We measured this by having respondents fill in a prescription with their standard quantity of OCs prescribed and number of refills given. We also examined physician knowledge of the law and obtained demographic and practice characteristics of all respondents as well.

We compared responses by those residing in a state with a policy allowing for the provision a 12-month supply of contraception and those without the policy. Results were compared between the two groups using chi-squared test and Fisher's exact test as appropriate. The study was approved by the Institutional Review Board at Oregon Health & Science University. Analyses were done using Stata/SE 15.1 (Stata Corp LP, College Station, TX, USA).

iii. Results

Our final sample size included 275 OB/GYN residents from 27 states. Of the responses, 48% (n=132) resided in a state with a policy requiring insurance coverage of a 12-month supply of contraceptives and 52% (n=143) resided in states without such a policy. Relevant demographic factors are presented in Table 1. The majority of participants identified as White, Female, and were between the ages of 20 and 29. Participants in both groups reflected all levels of post-graduate training.

Table 1
 Knowledge of 12-month contraceptive supply policy and demographic characteristics of
 obstetrician/gynecologist respondents. (n=275)

	Resides in state without 12-month contraceptive supply policy	Resides in state with 12- month contraceptive supply policy^a
	(n, %)	(n, %)
	143 (52)	132 (48)
Knowledge about contraception policy		
Does your state have a policy requiring insurers to cover a 12-month supply of contraception?	27 (18.9)	35 (26.5)
Yes, and women are able to get a 12- month supply	9 (6.3)	7 (5.3)
Yes, but only with certain insurance plans	3 (2.1)	2 (1.5)
No	104 (72.7)	88 (66.7)
I don't know		
Demographics		
Race/Ethnicity	99 (69.2)	80 (60.6)
White	6 (4.2)	9 (6.8)
Black	9 (6.3)	10 (7.6)
Hispanic	23 (16.1)	24 (18.2)
Asian	1 (0.7)	2 (1.5)
American Native		
Age (years)	86 (60.1)	65 (49.20)
20-29	57 (39.9)	67 (50.80)
30-39		
Gender *	126 (88.1)	116 (87.90)
Female	16 (11.2)	15 (11.40)
Male	0	1 (0.8)
Gender variant, non-conforming		

	Resides in state without 12-month contraceptive supply policy	Resides in state with 12-month contraceptive supply policy^a
	(n, %)	(n, %)
	143 (52)	132 (48)
Regions of the United States	52 (36.4)	0 (0)
Midwest	28 (19.6)	31 (23.5)
Northeast	42 (29.4)	8 (6.1)
South	21 (14.7)	93 (70.5)
West		
Program Characteristics		
Type of Program	128 (89.5)	116 (87.9)
Residency Program	15 (10.5)	16 (12.1)
Fellowship Program		
Years in current training program*	35 (24.5)	37 (28.0)
1	32 (22.4)	34 (25.8)
2	31 (21.7)	31 (23.5)
3	35 (24.5)	26 (19.7)
4	10 (7.0)	4 (3.0)
5+		
^a States with policy include California, Colorado, Connecticut, D.C., Delaware, Hawaii, Maine, Maryland, Massachusetts, Nevada, New Hampshire, New Jersey, New Mexico, Oregon, Rhode Island, Vermont, Virginia		
* p<0.05 for Chi-squared or Fisher's exact test		

Overall, knowledge of the policy and months of contraception prescribed was low in both groups. In states with a 12-month contraceptive supply policy, 66.7% of respondents did not know such a policy existed. Similarly, in states without such a policy, 72.7% responded that they did not know whether their state of practice had such a policy.

When asked to write a prescription for a 12-month supply of contraception, respondents on average wrote a prescription for 2.40 (Standard Deviation, SD=1.85) months of OCs. The mean months of coverage supplied by states with and without a policy were 2.81 (Standard Deviation, SD 2.07) and 2.02 (SD 1.54), respectively (p<0.05). Both groups routinely prescribed a median of 4 refills. To correctly have prescribed

12-months of contraception, respondents would have had to prescribe 12-months of OCs with 1 refill. Only 6.10% of respondents in states with a 12-month supply policy did this correctly in comparison to 2.80% percent of respondents in states without a 12-month supply policy ($p=0.19$).

Similarly, in states with a 12-month contraceptive policy in place, 3.8% of physicians reported regularly prescribing a 12-month supply, while only 1.4% of physicians in states without a policy reported regularly prescribing a 12-month supply. The majority of respondents in states without a policy, 53.8%, prescribed 1-month of coverage at a time; while the majority of respondents in states with a contraceptive supply policy prescribed between 2 and 3 months of coverage at a time ($p < 0.05$, Figure 1).

Iv. Discussion

For 12-month contraceptive supply policies to be fully implemented, prescribers must be aware of the law and insurance companies held accountable to fulfilling the legislation. Physicians in states with the policy were slightly more likely to prescribe a 12-month supply. However, the proportion of physicians aware of the policy and prescribing a 12-month supply were very low in both groups, and unlikely to impact population health.

This study is limited in that it was a relatively small, cross-sectional study. We did not assess other barriers to implementing 12-month contraception supply policies, such as insurance company coverage and patient preferences (4, 6). Additionally, we only surveyed resident physicians and our study population may not represent the entire healthcare workforce who prescribes contraception. However, there are over 100,000 resident physicians employed at any given time and they make up a key component of the current and future physician workforce (9). Additionally, the average number of months of OC prescribed by respondents in this survey (2.40 months of coverage), is similar to other studies showing that on average between two and four months of OC coverage are most frequently dispensed at a single time (5).

Health policy is a key determinant of care; however, policy implementation requires engagement with all affected stakeholders. Adequately training healthcare providers is relatively low-hanging fruit when it comes to effectively implementing health policy (10). The results of this study suggest that provider-level trainings may have a large impact on the currently low percentage of physicians prescribing a 12-month supply of contraception. This would improve oral contraception access for birthing individuals in the seventeen states with a policy already in place. As U.S. OB/GYN residency programs are required to offer regular didactic sessions, the population used for this study would be an easy target to pilot such trainings. Providers in states without a policy could still benefit from learning about the policy to better advocate for patients at a state-level.

To further improve implementation of 12-month contraceptive supply policies, future studies can focus on the role insurance companies play in dispensation of a 12-month supply of oral contraception. On the provider side, further investigations can explore other factors that impact provider prescribing, such as default electronic medical record prescription settings, institutional policies, and implicit bias. Regardless,

the low proportion of providers in this study able to identify 12-month contraceptive supply policies, let alone correctly prescribe a 12-month supply of contraception requires attention if 12-month contraceptive supply policies are to impact contraception access.

V. Conclusions

The results of this exploratory study suggest that OB/GYN providers are largely ignorant of 12-month contraceptive supply policies and how to correctly prescribe a 12-months of contraception. Provider training may be necessary for policy implementation and future research should investigate other barriers to implementing the policy.

Vi. Declarations

Consent for publication: n/a

Availability of data and materials: The datasets used and/or analysed during the current study are available from the corresponding author on reasonable request.

Competing Interests: Dr. Rodriguez's institution has received research funds from the National Institute of Health, the Robert Wood Johnson Foundation, and Merck for projects on which she is primary investigator. She has served as a contraceptive trainer for ACOG, Bayer, and Merck. All other authors do not have any possible conflicts of interest to disclose.

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Authors' contributions:

M.F. Creation of project idea, manuscript raft, design of study and tables, planning of data analysis and synthesis. K.S. Submission to institutional review board, data management, reviewed multiple drafts of manuscript. B.G. Data management, statistical analysis, and creation of tables and figures. M.R. Principal investigator, contributed to initial design and planning, reviewed multiple drafts of manuscript.

Ethics Approval and Consent to Participate:

The study was approved by the Institutional Review Board at Oregon Health & Science University. Participants provided informed consent prior to filling out the survey. All methods were performed in concordance with the Declaration of Helsinki.

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References

1. Sonfield A., Hasstedt K, Kavanaugh ML, Anderson R. 2013. The social and economic benefits of women's ability to determine whether and when to have children. Guttmacher Institute. Available at: www.guttmacher.org/sites/default/files/report_pdf/social-economic-benefits.pdf Accessed June 18th, 2021.
2. Guttmacher Institute. 2018. Contraceptive Use in the United States. www.guttmacher.org/sites/default/files/factsheet/fb_contr_use_0.pdf Accessed June 18th, 2021.
3. Centers for Disease Control and Prevention. 2020. Contraception. <https://www.cdc.gov/reproductivehealth/contraception/index.htm#Contraceptive-Effectiveness> Accessed September 26th, 2021.
4. Foster DG, Hulett D, Bradsberry M, Darney P, Policar M. Number of oral contraceptive pill packages dispensed and subsequent unintended pregnancies. *Obstetrics and gynecology*. 2011;117(3):566-572.
5. Foster DG, Parvataneni R, de Bocanegra HT, Lewis C, Bradsberry M, Darney P. Number of oral contraceptive pill packages dispensed, method continuation, and costs. *Obstetrics and gynecology*. 2006;108(5):1107-1114.
6. White KO, Westhoff C. The effect of pack supply on oral contraceptive pill continuation: a randomized controlled trial. *Obstetrics and gynecology*. 2011;118(3):615-622.
7. Power to Decide. At a Glance: Coverage for an Extended Supply of Contraception. 2019. <https://powertodecide.org/sites/default/files/2021-06/Extended%20Supply%20of%20Contraception.pdf> Accessed June 18th, 2021.
8. Kaiser Family Foundation. 2017 Employer Health Benefits Survey. 2017. <https://www.kff.org/health-costs/report/2017-employer-health-benefits-survey/> Accessed June 18th, 2021.
9. AAMC. 2021. Workforce Data and Reports. <https://www.aamc.org/what-we-do/mission-areas/health-care/workforce-studies/reports> Accessed June 18th, 2021.
10. Watt, S., Sword, W., Krueger P. 2005. Implementation of a health care policy: An analysis of barriers and facilitators to practice change. *BMC Health Service Resources*. 5(53).

Figures

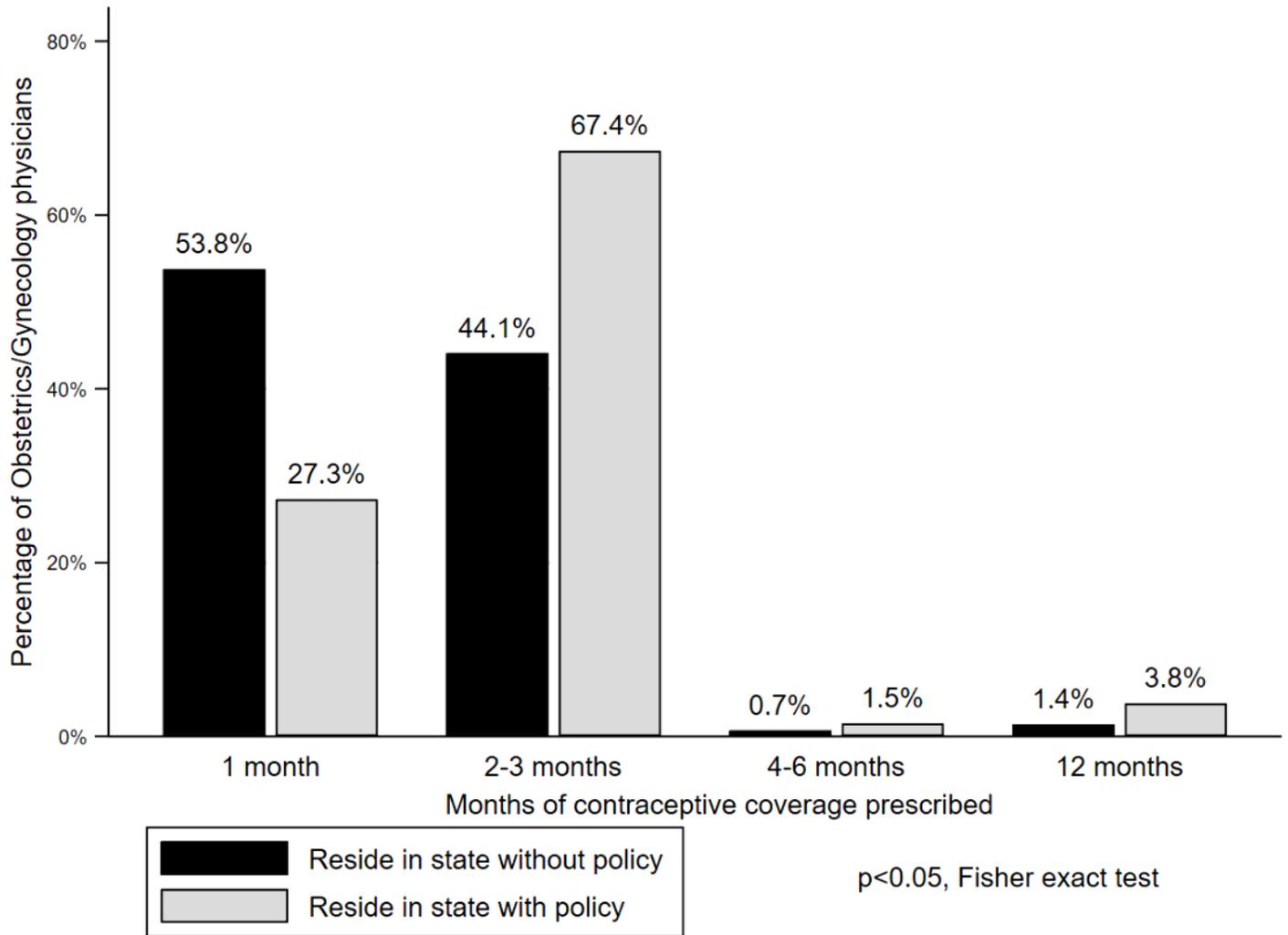


Figure 1

Months of contraceptive coverage prescribed by obstetrics & gynecology physicians living in states with and without a policy requiring insurance coverage of 12-months of contraception (n=297)