

The Effect of Dispensing One-Year Supply of Oral Contraceptive Pills

Findings from Washington State

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THE HEALTH CARE AUTHORITY (HCA) of Washington State changed the policy for oral contraceptive pills (OCPs) supply in 2014 by requiring the dispensing of one-year packages for Medicaid recipients (under Section 213, Chapter 4, Laws of 2013, 2nd Special Session).¹ The program goals are to achieve savings by reducing unintended pregnancies that result in Apple Health (Medicaid) funded births. This report presents findings on whether the policy was effectively implemented. The objectives of this study are to: 1) describe dispensing patterns for OCPs to Medicaid women, 2) estimate the averted births associated with the policy change of dispensing one-year supply of OCPs relative to one-month supply, and 3) estimate cost savings due to averted births as a result of dispensing one-year supply of OCPs.

Key Findings

The policy of dispensing one-year supply was not implemented to the scope intended.

- Only 14% of 48,667 women who received OCPs during 2014² were dispensed a one-year supply, compared to 56% initially dispensed a one-month supply, 20% initially dispensed three-month supply, and 10% initially dispensed another quantity.

Dispensing at least a one-year supply was associated with a significant reduction in number of Medicaid funded births.

- Dispensing at least a one-year supply was associated with a 12% reduction in Medicaid funded births (95% confidence interval (CI) 0.80-0.97), and was not associated with conceiving a pregnancy compared with a one-month supply when adjusting for demographics and contraceptive history.

Dispensing at least a one-year supply of OCP was associated with savings on Medicaid funded maternity and infant care due to averted births.

- Among women receiving at least a one-year supply of OCP, the state saved \$1.5 million, an average of \$226 per client, on maternity and infant care services due to averted births compared with those who were dispensed an initial one-month supply during 2014.
- Providers should be encouraged to prescribe and dispense more months of OCPs per visit whenever medically appropriate.

¹ https://www.hca.wa.gov/assets/billers-and-providers/model_contract_ahmc.pdf.

² Most recent data possible given timeline for pregnancy and postpartum.

Background

Individuals need convenient access to contraceptive drugs, as these drugs prevent unintended pregnancies. Running out of pills, along with difficulty in access, is a leading reason for oral contraceptive pills (OCPs) discontinuation (Kerns, Westhoff, Morroni, & Murphy, 2003; Smith & Oakley, 2005). Increasing the supply of OCPs at the time of initial dispensing increases the months of contraceptive coverage and continuation rates, and consequently achieves savings by reducing unintended pregnancies that lead to Medicaid funded births.

The policy of dispensing a one-year supply of OCPs in Washington State was allowed but not required starting in 2010. Prior to 2014, birth control pills were dispensed most frequently as one-month or three-month supplies. The policy change in 2014 required the dispensing of one-year packages for Medicaid recipients. Effective implementation of this policy change would have an impact on reducing the number of unintended pregnancies. In 2013, among the 63,691 females ages 12-50 who received OCPs and were recorded in ProviderOne, 6,289 (9.9%) became pregnant within 12 months of their first receipt of OCPs.

In 2014 there were a total of 41,547 women with Medicaid funded maternity care in Washington State. Total expenditures for these women were \$679 million, with an average \$16,344 per woman including prenatal, delivery, postpartum, and infant medical care. Given the continued needs of clients served and contraceptive methods offered, it is important to evaluate the effectiveness of the policy implementation for oral contraceptive dispensing on reducing the number of unintended pregnancies and consequently, a reduction of annual expenditures for prenatal, delivery, newborn and infant care due to the reduction of Medicaid paid births.

Methods

Study Population and Design

All Washington residents ages 15-44 who were enrolled in the Medicaid program and had a record/indication of using any oral contraceptive pills during 2014, the first year of the policy implementation, comprised the study population.

For each client who received a prescription or dispensing of OCPs during Jan-Dec 2014, an "index month" was identified as the first month in which there was an oral contraceptive Medicaid claim. For this study, a pack of OCPs refers to a supply sufficient for a 28-day period including 21 active pills. A one-year supply is considered to be 12 or 13 packs. The initial quantity dispensed was categorized as one-month supply, three-month supply, one-year supply, or "other" that combined all other quantities for the purpose of analysis. Each client was monitored for continued monthly OCP supply during 15 months post the index month. Records on these clients switching to another contraceptive method(s) or refilling (including new prescriptions of different pills) during 12 months post to the index month was captured. Information on pharmacy dispensing or clinician prescription, and the type of payment for the initial pill package was recorded.

In addition to age and race/ethnicity, client characteristics include Medicaid eligibility category at the index month as well as contraceptive methods usage during 12 months prior to the initial supply, giving one month grace period. Analysis was restricted to clients who maintained Medicaid eligibility for at least eleven months of the 12 months following the index date.

We examined the selected measures including pregnancies and Medicaid funded births experienced by these women within a 12-month period of initial OCP supply for the pregnancy conceived, adding 10 months to account for a term pregnancy and postpartum period) for subsequent Medicaid funded births.

FIGURE 1.
Study Timeline



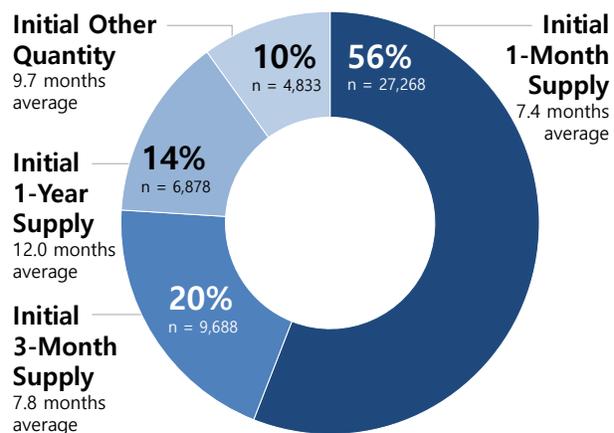
Using the expenditures for maternity and infant care services including prenatal, delivery, newborn and infant care, we estimated the savings as a result of averted births for women with a one-year supply of OCPs compared to women with a one-month supply. We estimated the number of births averted through the initial one-year supply of OCPs to be the difference between the number of births expected based on patterns for women with a one-month index supply and the number of births identified. To further estimate the cost savings of any pill use, we compared the savings due to averted births as the differences in costs for maternity and infant care services among one-year or one-month initial OCP supply compared to the expected number of births based on overall rates for women without OCPs.

The probability of pregnancy and subsequent births in the absence of OCPs was based on the reported age-adjusted first-year pregnancy rate of OCPs (41%) (Foster et al., 2009) and pregnancies carried to term (49%) (Frost, Frohwirth, & Zolnz, 2016). Based on these studies a birth rate of 20.1% was used as the expected rate for clients in the absence of OCPs.

Key Findings and Discussion

Initial Quantity Dispensed and Number of Months with Pills on Hand

FIGURE 2.
Percent of Women with OCPs on Hand
By quantity of oral contraceptive pills initially dispensed during Calendar Year 2014, TOTAL = 48,667



SOURCE: ProviderOne, July 2017. NOTE: All differences by initial supply categories are significant at the 0.05 level using Chi-Squared test or ANOVA/Tukey pairwise comparison.

A total of 48,667 women who met analysis criteria received OCPs, accounting for 36% of women with any Medicaid contraceptive use and 73% of Medicaid OCP use in 2014.

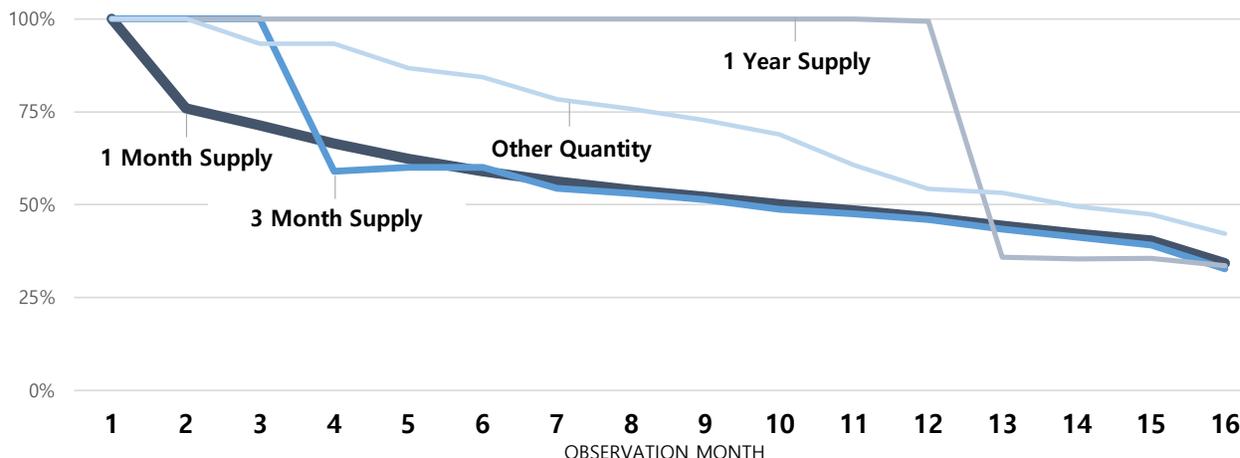
More than half (56%) of women who received pills got a one-month supply, 20% got a three-month supply, 14% got at least a one-year supply, and 10% got some other quantity of pill packs.

Compared to the clients who received a one-year supply, which would have provided each woman with continuous OCPs for 12 months, those who received one-month, three-month, and other quantities received OCP supply on average for 7.4, 7.8, and 9.7 months ($p < 0.001$), respectively, for the year following the first oral contraceptive claim in 2014.

FIGURE 3.

Continuous Eligibility Study Population

Oral contraceptive pills on hand in a given month by initial quantity dispensed in Calendar Year 2014



SOURCE: ProviderOne, July 2017.

The percentage of women who had OCPs on hand for a given month and the percentage of women who had sufficient supplies for continuous use by month since their initial dispensing is shown in Figure 3. For women with one-year supply, about one in three had pills on hand (36%) by the 13th month, comparing with three out of five women who received one-month (32%) or three-month (30%) supply, and one out of two women who received other quantities of initial supply (43%) of OCPs had sufficient pills in time to continuously use OCPs for the subsequent 13-month period.

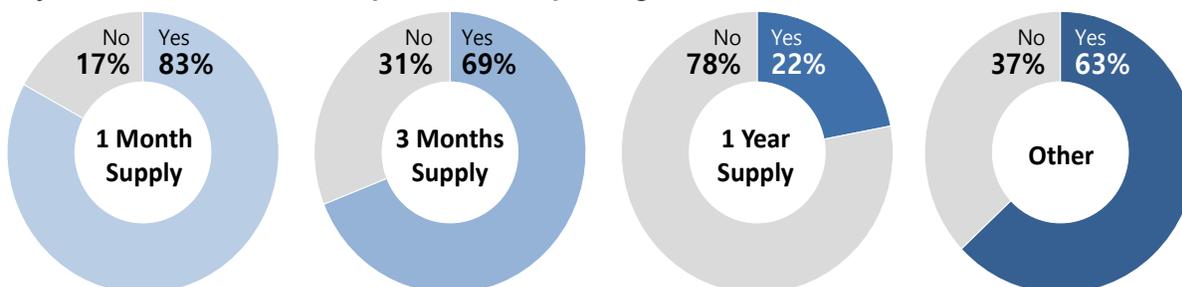
Some differences in pill continuation could have resulted from switching to other contraceptive methods or refilling (or not) with more pills after initial dispensing. Twelve percent of women switched to other contraceptive methods within 12 months, although less than 1% of the switching occurred before conceiving a pregnancy. All clients with initial OCPs of other than one-year supply need to have at least one refill for continued contraceptives. Overall, one in three clients did not get any refill (29%) within 11 months. The policy of dispensing one-year supply provides women with sufficient pills so they do not need to make return visits to pharmacies or clinics to refill prescriptions and thus encourage continuation in OCP use. In these data, however, one in five clients (22%) with initial one-year supply got a refill within 11 months. This could be due to mild adverse effect characteristics of adoption of OCPs, one had to stop using the original prescribed OCPs and must return to a clinic to refill a prescription, leaving some pills unused as wastage.

FIGURE 4.

Refill Patterns by Length of Supply

Overall percent = 69%, TOTAL = 33,813

Any refills within 11 months post initial dispensing?



SOURCE: ProviderOne, July 2017.

Types of Providers and Payments

About one in four women (26%) received clinic-dispensed OCPs and close to half of them (47%) obtained a one-year supply, compared to 74% pharmacy-dispensed with only 2% dispensed as one-year supply (Table 1). For prescriptions written with a dispensing quantity less than a one-year supply, the HCA billing guideline “encourages pharmacies to contact the prescriber to request a change in the dispensing quantity and to submit a prior authorization code if the dispensing quantity remains unchanged.”³ Even though the majority of pharmacies dispensed less than a one-year supply (98%), only 17% of the pharmacies submitted prior authorization codes that were available in Provider One claims data (data not shown).

TABLE 1.

Where Dispensed and How Oral Contraceptive Pills Were Paid

Calendar Year 2014

	Women Served		Length of Initial Supply			
	NUMBER	PERCENT	1 MONTH	3 MONTHS	1 YEAR	OTHER
TOTAL	48,667		27,268	9,688	6,878	4,833
Where Dispensed						
Clinic dispensed	12,858	26%	9%	13%	47%	31%
Pharmacy dispensed	35,809	74%	73%	22%	2%	2%
How OCPs Were Paid						
Medicaid Fee-for-Service	15,497	32%	30%	19%	31%	20%
Managed Care Plans	33,170	68%	68%	20%	6%	5%
Amerigroup Washington Incorporated	3,176	10%	60%	24%	8%	7%
Community Health Plan of Washington	7,663	23%	65%	24%	6%	5%
Coordinated Care of Washington	4,322	13%	67%	22%	6%	5%
Molina Healthcare of Washington Incorporated	13,306	40%	71%	18%	6%	5%
United Health Care Community Plan	4,701	14%	75%	14%	7%	4%

NOTE: All comparisons were statistically significant at $p < 0.05$.

One third of Medicaid women receiving oral contraceptives had Medicaid claims with payment (32%) by private and nonprofit providers delivering family planning services reimbursed by the state on a fee-for-service basis while two thirds of women received oral contraceptives through Managed Care plans.

These data, however, did not account for the shift of clients between fee-for-service and Managed Care coverage during the follow-up period when a higher proportion of Managed Care clients was expected. Among clients with fee-for-service at index month, close to one-third obtained one-year supply of OCPs, much higher than that of Managed Care clients (31% vs. 6%, $p < 0.0001$).

The initial dispensing quantity also varied by Managed Care plans, although the largest difference was for one-month supply, with a range of 60% to 75% of index events categorized as dispensing a one-month supply compared to the range of 4% to 7% for a one-year supply.

³<https://www.hca.wa.gov/billers-providers/claims-and-billing/professional-rates-and-billing-guides>.

Characteristics of Women Who Received Different OCP Packages

Young women are more likely to get a one-year supply than older women, with 16% of teenagers, 15% of women in their twenties, 10% in their thirties, and 9% in their forties getting one-year supply (Table 1, $p < 0.05$). The proportions receiving a one-year supply among race/ethnicity groups ranged from 13% for Black and 16% for Asian and Hispanic women compared to ranges for a one-month supply of 51% for American Indian/ American Natives/ Hawaiian/ Pacific Islander women and 57% for White women.

TABLE 2.

Characteristics of Women Who Receive Different Supplies of Oral Contraceptive Pills
Calendar Year 2014

	Women Served		Length of Initial Supply			
	NUMBER	PERCENT	1 MONTH	3 MONTHS	1 YEAR	OTHER
TOTAL	48,667		27,268	9,688	6,878	4,833
Age						
15-19	13,838	28%	56%	19%	16%	9%
20-29	23,013	47%	53%	20%	15%	11%
30-39	10,019	21%	60%	21%	10%	9%
40-44	1,797	4%	64%	20%	9%	7%
Race/Ethnicity						
Hispanic	7,187	15%	54%	22%	16%	8%
White	30,725	63%	57%	19%	14%	10%
Asian	1,752	4%	54%	20%	16%	10%
Black	2,430	5%	56%	23%	13%	8%
Am Indian/AK Native/Hawaiian/Pacific Islander	2,003	4%	51%	24%	15%	10%
More Than One Race	539	1%	54%	17%	15%	15%
Other/Unknown	4,031	8%	55%	19%	15%	11%
Medicaid Eligibility Category						
ACA Expansion Adults	18,416	38%	52%	20%	17%	12%
CHIP/CN Children/CHP State Only Child	9,492	20%	62%	20%	12%	7%
CN Family Medical	11,506	24%	66%	20%	8%	6%
Family Planning/Take Charge	3,883	8%	18%	20%	32%	29%
Pregnancy Medical	3,253	7%	61%	22%	12%	5%
Other	2,117	4%	71%	19%	5%	4%
Contraceptive Methods in Prior Year						
New client	7,310	15%	43%	18%	26%	13%
Established Client, New Pill User	21,394	44%	59%	24%	12%	6%
Established Client, Established Pill Only User	14,748	30%	59%	15%	12%	14%
Established Client, Other Contraceptive User	5,215	11%	53%	22%	13%	11%

NOTES: All comparisons were statistically significant at $p < 0.05$. Established Client, Other Contraceptive User includes pill users who also used other contraceptive methods.

The OCP dispensing patterns vary by client Medicaid eligibility category. One in three (32%) Family Planning/ Take Charge clients and 17% of Affordable Care Act (ACA) expansion adults were dispensed a one-year supply, higher than that of women in other eligibility categories ranging from 5% to 12%. Eighteen percent of Family Planning/ Take Charge clients were dispensed initially a one-month supply, compared to 52% for ACA expansion adults, and more than 60% for other eligibility categories. The Family Planning/ Take Charge program allows states to expand eligibility for family planning services to women otherwise ineligible for Medicaid. All clients of Family Planning services were paid by fee-for-service.

Forty-eight percent of women with oral contraceptive claims in 2014 and who had at least some claims in the prior year had a claim for at least one contraceptive method during the 12 months prior to the index month. Among these established clients (n=41,357), more than half (61%) were new pill users and 39% were established pill users. By initial dispensing quantity, one in four (26%) new clients obtained an initial one-year supply, significantly higher than women of other contraceptive history categories ranging from 12% to 14% (p<0.001).

Pregnancy Conceived and Subsequent Births

It is worth noting that pregnancy events do not take into account pregnancy intention, medication non-compliance, method failure, or taking OCPs for a reason other than pregnancy prevention. The National Survey of Family Growth (NSFG) estimated 7% failure rates within 12 month of OCP use (Sundaram et al., 2017), and that 14% of pill use, including one-third of teen users, was for non-contraceptive reasons (R. K. Jones, 2011).

In these data, all 122 women (0.3%) who switched to less effective contraceptive methods prior to pregnancy ended up conceiving within 12 months, indicating possible intentional pregnancy. For this reason, further analyses including multivariable logistic regression models excluded these 122 clients who switched to less effective contraceptive methods prior to pregnancy and conceived after switching.

Women who had OCP claims during 2014 experienced 6,697 (13.8% of 48,545) pregnancies within a year of the index claim. The pregnancy rates by initial supply quantity were similar for women receiving one-year (13.5%), one-month (13.8%), or three-month (14.3%) supplies (Figure 5). Women who received an initial one-year supply, however, had significantly lower proportion of births (8.8%, Figure 6) compared to those getting one-month or three-month supply. Women who received other quantity of supply fared better with significantly lower pregnancy rate (10.5%) and birth rate (6.9%) (p<0.0001), compared to women getting one-month supply.

The proportions of pregnancy and births were much higher for women who had no refill compared to those who had at least one refill during the 11-months after the initial supply (Figures 5 and 6). For example, of 14,793 (29%) women who had no refill, the proportions of pregnancy and births were 25% and 20% among clients with one-month supplies. In contrast, women who had at least one refill experienced much lower proportions of pregnancy and births, 12% and 8%, respectively, among clients with one-month supplies. For those receiving a one year supply, the proportion of pregnancies dropped from 15% for those with no refill to 12% with at least one refill experienced. The birth rate for those receiving a one year supply and one refill was 5%.

Given the limitations of the administrative data, lacking information regarding pill compliance and pregnancy intention, it is reasonable to speculate that women who got refills tended to make supply-related return visits, received counseling related to the provision of contraceptive methods, and therefore may be more effective in taking pills, compared to those who did not refill or obtained pills dispensed at pharmacies. These data, however, do not have information on those who did not get refills of OCPs due to some side effects they did not like or who switched to another method.

FIGURE 5.

Pregnancy Conceived

OCP initial dispensing during Calendar Year 2014

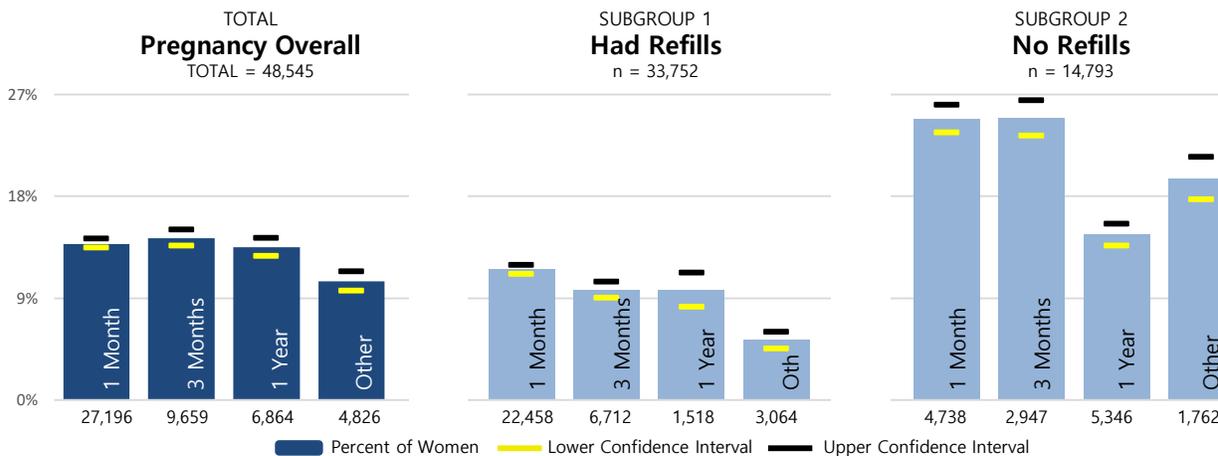
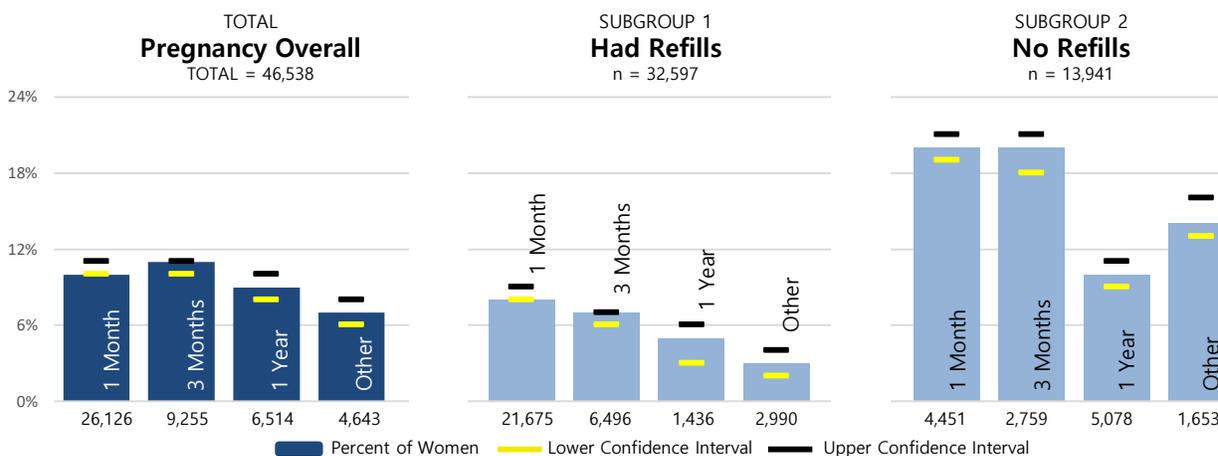


FIGURE 6.

Subsequent Births

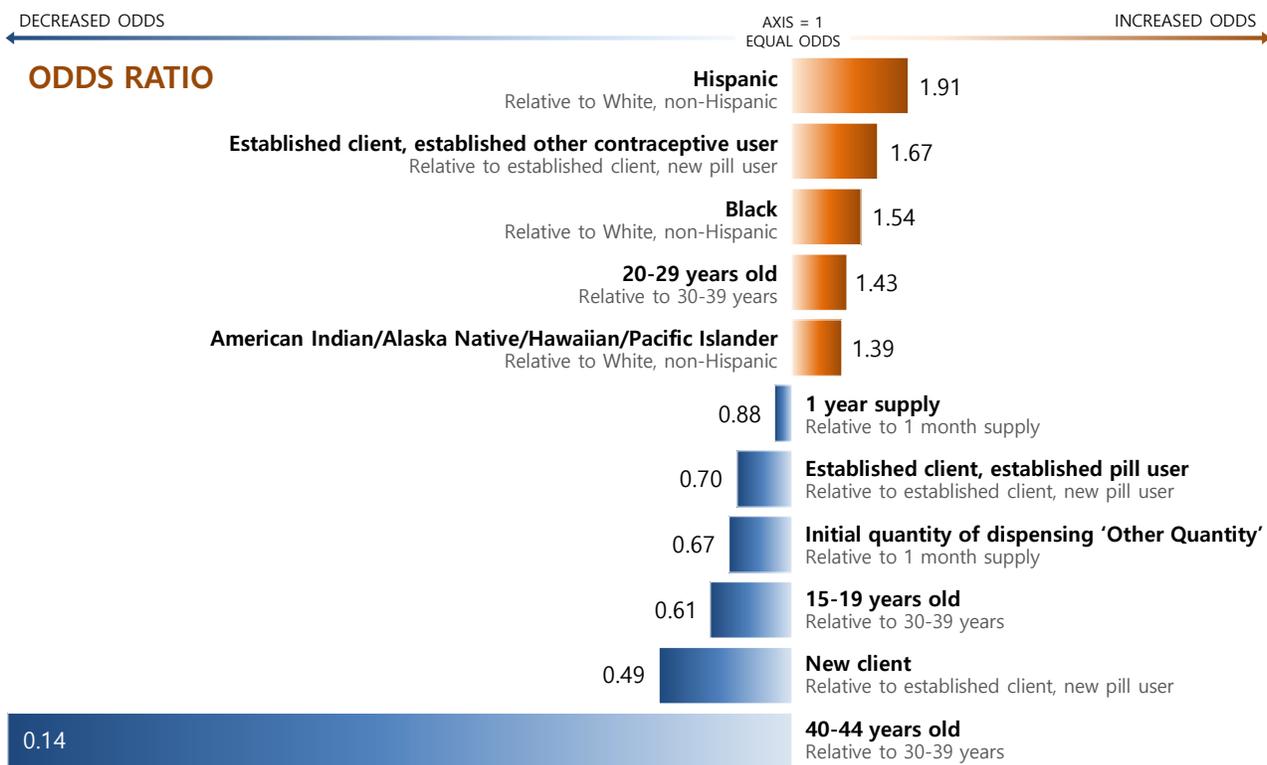
OCP initial dispensing during Calendar Year 2014



Effect of Initial OCP Supply on Pregnancy and Births

Compared with a one-month supply, dispensing a one-year supply was associated with a 12% reduction in Medicaid funded births (95% confidence interval (CI) 0.80-0.97), although it was not associated with the odds of conceiving a pregnancy. The result of a significant reduction of Medicaid funded births associated with dispensing a one-year supply was consistent with a previous report in California (Foster, Hulett, Bradsberry, Darney, & Policar, 2011). The effect of age showed a consistent and expected pattern of significantly less likelihood of conceiving pregnancy and subsequent birth among teens (ages 15-19) and older women (ages 40-44), and significantly more likely among women ages 20-29 than that of women in their thirties (the reference group). Hispanic and Black women were more likely to get pregnant and have subsequent births than white non-Hispanic women (the reference group). New clients and established clients who were previous pill users were significantly less likely, and established clients of other contraceptives were significantly more likely, to get pregnant and have subsequent births than established clients who were new pill users (the reference group).

FIGURE 5.
Odds of Experiencing Births



Cost Savings

Savings were derived primarily from averted births resulting in avoided costs for maternity and infant care. Using the birth rate of one-month supply to estimate the number of expected births for clients of one-year supply, dispensing one-year supply resulted in 96 averted births (Table 4). The state saved \$1.5 million, an average of \$226 per client with one-year supply (n=6,514) due to averted births compared with those with one-month supply in 2014.

TABLE 4.

Number of Births Averted and Cost Savings of OCPs by Initial Supply of One-Year versus One-Month Supply

OCP initial dispensing during Calendar Year 2014

SCENARIO #1 Cost savings of averted births by initial supply of 1 year vs. 1 month OCPs.

	Denominator	Percent of Births	Number of Births	Number of Births Averted	Total Savings	Savings per Client
1 Month, Claimed	26,126	10.3%	2,691			
1 Year, Expected	6,514	10.3%	671			
1 Year, Claimed	6,514	8.8%	575	96		
Savings on maternal services					\$907,890	\$139
Savings on maternal and infant care services					\$1,471,508	\$226

NOTE: Average incurred costs for Medicaid clients with liveborn births in Washington including prenatal and postpartum were \$9462 for maternal care services and \$5874 for infant care services during 1st year, FY2014.⁴

⁴ <https://www.hca.wa.gov/about-hca/reproductive-health/Medicaid-funded-maternal-services-for-Washington-births-to-Medicaid-mothers>.

Using the reported birth rate in absence of OCPs (20.1%) (Foster et al., 2009; Frost et al., 2016), dispensing one-year OCP supply would have resulted in an estimated 734 averted births and savings on the same services of \$11.3 million, an average of \$1,727 per client, in 2014 (Table 5). For clients receiving a one-month initial supply, the State saved \$39.3 million (\$1,501 per client) on maternity and infant care services as a result of 2,558 averted births, compared with those in the absence of OCPs. This finding was consistent with a previous report that any OCP supply would be cost-effective (Foster et al., 2009).

TABLE 5.

Number of Births Averted and Cost Savings of OCPs by Initial Supply of One-Year versus absence of OCPs

OCP initial dispensing during Calendar Year 2014

SCENARIO #2 Cost savings of averted births by initial supply of 1 year vs. absence of OCPs.

	Denominator	Percent of Births	Number of Births	Number of Births Averted	Total Savings	Savings per Client
Absence of OCPs, Expected	6,514	20.1%	1,309			
1 Year, Claimed	6,514	8.8%	575	734		
Savings on maternal services					\$6,942,003	\$1,066
Savings on maternal and infant care services					\$11,251,591	\$1,727

NOTE: Based on reported pregnant rate of 41% for absence of OCPs (Foster et al., 2009) and 49% of term birth among pregnant women (Frost et al., 2016).

An important limitation on the cost saving estimate is worth noting. The cost of maternity and infant care was based on live births, which did not include the cost of acquiring and using a contraceptive method, treating side effects associated with contraceptive use, or avoiding reproductive diseases for non-pregnant women and women with pregnancy outcomes other than live birth.

Summary

Only one in seven women who used OCPs received a one-year initial supply in 2014, indicating that the policy of dispensing a one-year supply was not adopted to the scope intended during the first year after the policy became a requirement. Despite lower-than-expected participation in the initiative to increase full year oral contraceptive dispensing to contraceptive pill users, dispensing a one-year supply was associated with a significant reduction in number of births and resulted in savings related to Medicaid funded maternity and infant care for liveborn babies compared with women receiving a one-month supply. Managed Care plans should encourage their providers to follow HCA guidelines and prescribe more months of OCPs, especially as the majority of Medicaid payments have shifted from fee-for-service to Managed Care. Furthermore, research demonstrating that even a one-month supply of OCPs would result in savings compared with those in absence of OCPs suggests the importance of making oral contraceptives more accessible.

DATA SOURCES

This brief report is based on analysis of Medicaid claims and encounter data from ProviderOne, Washington's Medicaid Management Information System. The First Steps Database (FSDB) links all Washington State birth and death certificates at the individual level to Medicaid-paid maternity services and Medicaid eligibility. FSDB relies on information obtained from the Health Care Authority and the Department of Health Center for Health Statistics (DOH CHS). The FSDB served as an additional resource for identifying births to the analysis pool.

DEFINITION

Using both birth/death certificates and claims from ProviderOne, pregnancy is defined as either 1) having a live birth, or fetal death with a gestational age of at least 20 weeks, identified in the First Steps Database with presumed conception during the 12 months after the index date, based on gestational age; 2) claims for pregnancy-related services within 12 months after the index date; or 3) birth-related services identified using ICD-9-CM and ICD-10-CM diagnosis and procedure codes, current procedure terminology codes, and diagnosis related group codes in a time frame consistent with conception within 12 months of the index date.

Birth is defined based on diagnosis-related group codes, ICD-9-CM and ICD-10-CM diagnosis and procedure codes, current procedure terminology codes, and vital statistics birth records linked to Medicaid claims in the First Steps Database. Births of interest occurred during a time period based either on gestational age indicating conception in the 12 months after the index date, or, in the absence of a gestational age, within 22 months of the index date. Records were excluded from the analysis if 1) there was not continuous Medicaid eligibility, defined as at least 11 months in the 12 months after the index event; 2) there was a claim indicating sterilization or contraceptive implant, IUD, injection, ring, or patch within one month before or after the index oral contraceptive date; 3) indication of pregnancy in the first month after the index event; or 4) indication of birth within six months after the index event.

Continuous eligibility in the following year was necessary in order to evaluate claims for pregnancy indication, or lack of pregnancy indication, within that period. Claims near in time for other contraceptive methods at least as effective as oral contraceptives call into question attribution of pregnancy and births to oral contraceptives. Pregnancy within one month, or birth within six months, of the index event were considered unlikely to be due to failure of the index dispensed product, and therefore invalid for analysis.

STATISTICAL ANALYSES

Descriptive statistics were conducted for the total sample and by initial dispensing quantity category. Significant differences for the average number of continued OCP months between dispensing categories were determined using ANOVA with Tukey test for pairwise comparison. Categorical variables were examined using Wald chi-square test. The effect of the initial OCP dispensing category on pregnancy and birth was estimated using multivariable logistic regression models while controlling for age, race/ethnicity and contraceptive history. The same reference group of non-pregnant clients was used as the reference group for evaluation of pregnancy and births.

What is an odds ratio (OR)?

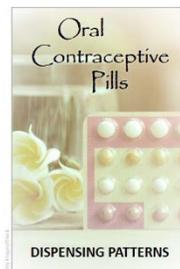
EXAMPLE: Calculating the crude OR for between-group differences in the probability of births.

- 8.8% of women with index one-year supply had births, while 10.3% of women with index one-month supply had births.
- $OR = (.088/(1-.088))/(.103/(1-.103)) = 0.84$.
- Interpretation: the odds of having a birth among women who had a one-year supply at initial dispensing reduced to 84% or a reduction of 16% in odds compared with of the rate for women with a one-month supply.

ORs reported in this study were adjusted ORs controlling for age, race/ethnicity and contraceptive history.

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