HB 345

<TARGET><BILL>HB 345</BILL><SUBJECT>HB 345</SUBJECT><COMM>HHSS29</COMM></TARGET>

Alaska State Legislature

Representative Matt Claman

Session: State Capitol, Rm 405 Juneau, AK 99801 Phone: 465-4919
Interim: 716 W. 4th Ave, Rm 312 Anch, AK 99501 Phone: 269-0130

To: Representative Paul Seaton, Chairman
House Health and Social Services Committee

From: Representative Matt Claman
HB 345 Prime Sponsor

Subject: Hearing Request for HB 345

Date: March 22, 2016

I respectfully request that you calendar HB 345 for a hearing in the House Health and Social Services Committee. You have received a copy of the most recent version of the bill, the sponsor statement, and additional support material.

The bill will reduce the costs of unintended pregnancies by making oral contraceptives more readily available to Alaskan women. Unintended pregnancies are a significant cost driver for the State of Alaska and HB 345 would significantly reduce those costs.

The staff assigned to this resolution is Meghan Cavanaugh who can be reached at 465-6597. Please do not hesitate to contact my office if we can provide any additional information.

Sincerely,

Alaska State Legislature

Representative Matt Claman

Session: State Capitol, Rm 405 Juneau, AK 99801 Phone: 465-4919
Interim: 716 W. 4th Ave, Rm 312 Anch, AK 99501 Phone: 269-0130

House Bill 345
Sponsor Statement

Unintended pregnancies have significant and negative consequences for individual women, their families, and society as a whole. Research links births resulting from unintended or closely spaced pregnancy to adverse maternal and child health outcomes and other social and economic challenges. With Alaska's fiscal challenges, we should look for ways to reduce costs in the short-term and long-term. House Bill 345 will reduce costs associated with unintended pregnancies by making oral contraceptives more easily available to Alaskan women.

In 2010, 48% of all pregnancies in Alaska were unintended. Alaska's unintended pregnancy rate in 2010 was 54 per 1,000 women aged 15-44. Of those unintended pregnancies, 60% resulted in births, 26% resulted in abortions, and the remainder resulted in miscarriages. Most unintended pregnancies are associated with significant public costs. In 2010, 64.3% of unplanned births in Alaska were publically funded, which resulted in a $42.9 million cost to the state.

House Bill 345 seeks to reduce the costs of unintended pregnancies by making oral contraceptives more easily available to Alaskan women. A research study shows that women who were dispensed a 12-month supply of oral contraceptives were 30% less likely to have an unintended pregnancy than women who received a 1- or 3-month prescription. The study concluded that health insurance programs and public health programs may avert costly unintended pregnancies by increasing dispensing limits on oral contraceptives to a 1-year supply.

HB 345 requires health care insurers, including Medicaid services, to cover 12 months of prescriptive oral contraceptives at a time. Alaskan women often face challenges while trying to access prescription contraceptives. Women living in rural Alaska have less access to healthcare services and therefore less reliable access to prescriptive contraceptives. Fisherwomen working on a boat for two or three months at a time need longer supplies of prescription oral contraceptives. This bill looks to reduce health care costs in Alaska by preventing unintended pregnancies and providing Alaskan women greater access to family planning options.

29-LS1503\H
Wallace
3/22/16

CS FOR HOUSE BILL NO. 345( )

IN THE LEGISLATURE OF THE STATE OF ALASKA

TWENTY-NINTH LEGISLATURE - SECOND SESSION

BY

Offered:
Referred:

Sponsor(s): REPRESENTATIVES CLAMAN, Muñoz, Kito

A BILL

FOR AN ACT ENTITLED

"An Act relating to insurance coverage for contraceptives and related services; relating to medical assistance coverage for contraceptives and related services; and providing for an effective date."

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF ALASKA:

* **Section 1.** AS 21.42 is amended by adding a new section to read:

Sec. 21.42.427. Coverage for contraceptives. (a) A health care insurer that offers, issues for delivery, delivers, or renews in the state a health care insurance plan in the group or individual market shall

(1) provide coverage for

(A) prescription contraceptives;

(B) voluntary sterilization procedures; and

(C) consultations, examinations, procedures, and medical services that are necessary to prescribe, dispense, insert, deliver, distribute, administer, or remove the drugs, devices, and other products or services

provided under this paragraph;

(2) reimburse a health care provider or dispensing entity for dispensing prescription contraceptives intended to last for a 12-month period for subsequent dispensings of the same prescription contraceptive to the insured regardless of whether the insured was enrolled in the health care insurance plan at the time of the first dispensing.

(b) A health care insurer may not deny coverage or reimbursement under (a) of this section because an insured changed contraceptive methods within a 12-month period.

(c) A health care insurer may not offset the costs of compliance with (a) of this section and may not require copayments, deductibles, or other forms of cost sharing for contraceptives or services covered under (a) of this section.

(d) A health care insurer may not restrict or delay the coverage or reimbursement required under (a) of this section, including use of medical management techniques that limit an insured's choice in accessing a full range of prescription contraceptives.

(e) A health care insurer shall provide coverage and reimbursement under (a) of this section to all insureds enrolled in a health insurance plan, including enrolled spouses and dependents.

(f) A health care insurer that offers, issues for delivery, delivers, or renews in the state a health care insurance plan in the group market to a religious employer is exempt from the requirements of this section with respect to the health care insurance plan of the religious employer if the religious employer opposes the coverage required under this section and is an

(1) organization that meets the criteria set out in 26 U.S.C. 6033(a)(3)(A)(i) or (iii) (Internal Revenue Code of 1986), as amended; or

(2) eligible organization that has self-certified in the form and manner specified by the United States Secretary of Labor or has provided notice to the United States Secretary of Health and Human Services, under the requirements set out in 45 C.F.R. 147.131(b)(1) - (3).

(g) In this section,

(1) "health care insurer" includes a self-insured employer that offers, issues for delivery, delivers, or renews in the state a health care insurance plan for its employees;

(2) "prescription contraceptive" means a drug or device that requires a prescription and is approved by the United States Food and Drug Administration to prevent pregnancy.

* **Sec. 2.** AS 47.07.065 is amended by adding new subsections to read:

(b) The department shall pay for

(1) prescription contraceptives intended to last for a 12-month period for subsequent dispensings of the same prescription contraceptive if prescribed to and requested by the recipient, regardless of whether the recipient was receiving medical assistance at the time of the first dispensing; and

(2) consultations, examinations, procedures, and medical services that are necessary to

(A) prescribe, dispense, insert, distribute, or administer prescription contraceptives; or

(B) remove prescription contraceptives.

(c) Nothing in this section requires itemized reimbursement when a service is reimbursable as part of a bundled or composite rate.

(d) In this section, "prescription contraceptive" means a drug or device that requires a prescription and is approved by the United States Food and Drug Administration to prevent pregnancy.

* **Sec. 3.** The uncodified law of the State of Alaska is amended by adding a new section to read:

MEDICAID STATE PLAN INSTRUCTIONS; NOTICE TO REVISOR OF STATUTES. The Department of Health and Social Services shall immediately amend and submit for federal approval a state plan for medical assistance coverage consistent with AS 47.07.065(b) - (d), added by sec. 2 of this Act. The Department of Health and Social Services shall apply to the United States Department of Health and Human Services for any waivers necessary to implement AS 47.07.065(b) - (d), added by sec. 2 of this Act. The commissioner of health and social services shall notify the revisor of statutes in writing if the

United States Department of Health and Human Services approves the provisions of AS 47.07.065(b) - (d), added by sec. 2 of this Act.

* **Sec. 4.** The uncodified law of the State of Alaska is amended by adding a new section to read:

CONDITIONAL EFFECT. AS 47.07.065(b) - (d), added by sec. 2 of this Act, take effect only if the commissioner of health and social services notifies the revisor of statutes in writing under sec. 3 of this Act, on or before January 1, 2017, that the provisions of AS 47.07.065(b) - (d), added by sec. 2 of this Act, have been approved by the United States Department of Health and Human Services.

* **Sec. 5.** If AS 47.07.065(b) - (d), added by sec. 2 of this Act, take effect, they take effect on the day after the date the commissioner of health and social services makes a certification to the revisor of statutes under secs. 3 and 4 of this Act.

* **Sec. 6.** Except as provided in sec. 5 of this Act, this Act takes effect January 1, 2017.

CS FOR HOUSE BILL NO. 345(HSS)

IN THE LEGISLATURE OF THE STATE OF ALASKA

TWENTY-NINTH LEGISLATURE - SECOND SESSION

BY THE HOUSE HEALTH AND SOCIAL SERVICES COMMITTEE

Offered:
Referred:

Sponsor(s): REPRESENTATIVES CLAMAN, Muñoz, Kito

A BILL

FOR AN ACT ENTITLED

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(B) voluntary sterilization procedures; and

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provided under this paragraph;

(2) reimburse a health care provider or dispensing entity for dispensing prescription contraceptives intended to last for a 12-month period for subsequent dispensings of the same prescription contraceptive to the insured regardless of whether the insured was enrolled in the health care insurance plan at the time of the first dispensing.

(b) A health care insurer may not deny coverage or reimbursement under (a) of this section because an insured changed contraceptive methods within a 12-month period.

(c) A health care insurer may not offset the costs of compliance with (a) of this section and may not require copayments, deductibles, or other forms of cost sharing for contraceptives or services covered under (a) of this section.

(d) A health care insurer may not restrict or delay the coverage or reimbursement required under (a) of this section, including use of medical management techniques that limit an insured's choice in accessing a full range of prescription contraceptives.

(e) A health care insurer shall provide coverage and reimbursement under (a) of this section to all insureds enrolled in a health care insurance plan, including enrolled spouses and dependents.

(f) A health care insurer that offers, issues for delivery, delivers, or renews in the state a health care insurance plan in the group market to a religious employer is exempt from the requirements of this section with respect to the health care insurance plan of the religious employer if the religious employer opposes the coverage required under this section and is an

(1) organization that meets the criteria set out in 26 U.S.C. 6033(a)(3)(A)(i) or (iii) (Internal Revenue Code of 1986), as amended; or

(2) eligible organization that has self-certified in the form and manner specified by the United States Secretary of Labor or has provided notice to the United States Secretary of Health and Human Services, under the requirements set out in 45 C.F.R. 147.131(b)(1) - (3).

(g) In this section,

(1) "health care insurer" includes a self-insured employer that offers, issues for delivery, delivers, or renews in the state a health care insurance plan for its employees;

(2) "prescription contraceptive" means a drug or device that requires a prescription and is approved by the United States Food and Drug Administration to prevent pregnancy.

*** Sec. 2.** AS 47.07.065 is amended by adding new subsections to read:

(b) The department shall pay for

(1) prescription contraceptives intended to last for a 12-month period for subsequent dispensings of the same prescription contraceptive if prescribed to and requested by the recipient, regardless of whether the recipient was receiving medical assistance at the time of the first dispensing; and

(2) consultations, examinations, procedures, and medical services that are necessary to

(A) prescribe, dispense, insert, distribute, or administer prescription contraceptives; or

(B) remove prescription contraceptives.

(c) Nothing in this section requires itemized reimbursement when a service is reimbursable as part of a bundled or composite rate.

(d) In this section, "prescription contraceptive" means a drug or device that requires a prescription and is approved by the United States Food and Drug Administration to prevent pregnancy.

*** Sec. 3.** The uncodified law of the State of Alaska is amended by adding a new section to read:

MEDICAID STATE PLAN INSTRUCTIONS; NOTICE TO REVISOR OF STATUTES. The Department of Health and Social Services shall immediately amend and submit for federal approval a state plan for medical assistance coverage consistent with AS 47.07.065(b) - (d), added by sec. 2 of this Act. The Department of Health and Social Services shall apply to the United States Department of Health and Human Services for any waivers necessary to implement AS 47.07.065(b) - (d), added by sec. 2 of this Act. The commissioner of health and social services shall notify the revisor of statutes in writing if the

United States Department of Health and Human Services approves the provisions of AS 47.07.065(b) - (d), added by sec. 2 of this Act.

* **Sec. 4.** The uncodified law of the State of Alaska is amended by adding a new section to read:

CONDITIONAL EFFECT. AS 47.07.065(b) - (d), added by sec. 2 of this Act, take effect only if the commissioner of health and social services notifies the revisor of statutes in writing under sec. 3 of this Act, on or before January 1, 2017, that the provisions of AS 47.07.065(b) - (d), added by sec. 2 of this Act, have been approved by the United States Department of Health and Human Services.

* **Sec. 5.** If AS 47.07.065(b) - (d), added by sec. 2 of this Act, take effect, they take effect on the day after the date the commissioner of health and social services makes a certification to the revisor of statutes under secs. 3 and 4 of this Act.

* **Sec. 6.** Except as provided in sec. 5 of this Act, this Act takes effect January 1, 2017.

Fiscal Note

State of Alaska
2016 Legislative Session

Bill Version: HB 345
Fiscal Note Number:
() Publish Date:

Identifier: HB345-DHSS-HCMS-3-16-16
Title: INSURANCE COVERAGE FOR CONTRACEPTIVES
Sponsor: CLAMAN
Requester: House HSS

Department: Department of Health and Social Services
Appropriation: Medicaid Services
Allocation: Health Care Medicaid Services
OMB Component Number: 2077

Expenditures/Revenues

Note: Amounts do not include inflation unless otherwise noted below. (Thousands of Dollars)

	FY2017 Appropriation Requested	Included in Governor's FY2017 Request	Out-Year Cost Estimates				
OPERATING EXPENDITURES	**FY 2017**	**FY 2017**	**FY 2018**	**FY 2019**	**FY 2020**	**FY 2021**	**FY 2022**
Personal Services							
Travel							
Services	18.3						
Commodities							
Capital Outlay							
Grants & Benefits	2,004.4		2,004.4	2,004.4	2,004.4	2,004.4	2,004.4
Miscellaneous							
Total Operating	**2,022.7**	**0.0**	**2,004.4**	**2,004.4**	**2,004.4**	**2,004.4**	**2,004.4**
Fund Source (Operating Only)							
1002 Fed Rcpts	2,244.1		2,212.4	2,204.9	2,189.8	2,178.6	2,178.6
1003 G/F Match	(221.4)		(208.0)	(200.5)	(185.4)	(174.2)	(174.2)
Total	**2,022.7**	**0.0**	**2,004.4**	**2,004.4**	**2,004.4**	**2,004.4**	**2,004.4**
Positions							
Full-time							
Part-time							
Temporary							
Change in Revenues							

Estimated SUPPLEMENTAL (FY2016) cost: 0.0 *(separate supplemental appropriation required)*
(discuss reasons and fund source(s) in analysis section)

Estimated CAPITAL (FY2017) cost: 0.0 *(separate capital appropriation required)*
(discuss reasons and fund source(s) in analysis section)

ASSOCIATED REGULATIONS

Does the bill direct, or will the bill result in, regulation changes adopted by your agency? yes
If yes, by what date are the regulations to be adopted, amended or repealed? 07/01/18

Why this fiscal note differs from previous version:

Not applicable; initial version.

Prepared By: Margaret Brodie, Director Phone: (907)334-2520
Division: Health Care Services Date: 03/04/2016 01:00 PM
Approved By: Sana Efird, Asst. Commissioner, Finance and Management Services Date: 03/16/16
Agency: Health and Social Services

Analysis

Under Alaska Medicaid's current State Plan, contraceptive products are covered only with a corresponding prescriber's prescription. Not requiring a prescription for over the counter (OTC) contraceptives, such as condoms, will promote increased utilization.

System Enhancements
MMIS system enhancements required to implement this change are estimated to be $18,300 (50% FMAP/50%GF).

Benefits Costs
Assumptions: an estimated 20,000 Medicaid members (of which, 7,500 are through expansion) members will take advantage of Medicaid coverage of condoms without a prescription

1 - Condoms
At an average cost of $1 per condom, 24 condoms refilled/dispensed quarterly, plus an average dispensing fee of $18 per refill, the annual cost will be approximately $168 per member. An estimated 20,000 Medicaid members will take advantage of Medicaid coverage of condoms without a prescription, for a total cost of $3,360,000 (of which, $1,260,000 is attributable to expansion).

2 - Oral Contraceptives: Duplication of Services
It is anticipated that approximately 10%, or 794 members who are oral contraceptive users may require duplication of services (e.g., therapy changes, replacement of lost or stolen contraceptives, and diverted contraceptives). It is anticipated that there will be approximately 7,940 female Medicaid recipient contraceptive users annually (of which, 2,940 are through expansion) contraceptive users annually. Based on an average 4-month duplication of services, and based on a $45 per month National Average Drug Acquisition Cost average for oral contraceptives, the total duplication of services cost is estimated to be (794 members * 4 months * $45) = $142,920 (of which, $52,920 is attributable to expansion)

Benefits Savings
Of the approximately 8,000 female Medicaid members who are contraceptive users, we estimate that 75% or 6,000 will use oral contraceptives. With a standard oral contraceptive failure rate of 9% as cited by the Centers for Disease Control, 540 unintended pregnancies would result. A report by Foster et. al. (2011) projects a decrease in failure rate of approximately 30% when oral contraceptives are dispensed in 12-month quantities, which would result in an oral contraceptive failure rate of 6%. However, based on variable factors in Alaska, we have estimated a failure rate of 7%. This 7% failure rate would approximate 420 unintended pregnancies. Therefore, it is approximated that the difference between a 9% failure rate and a 7% failure rate, or 120 unintended pregnancies, may potentially be avoided through dispensing 12-month quantities.

Based on Medicaid claims data, the rate of complicated births is approximately 4.4%. Applying this differential, we estimate that approximately 5.28 of the unintended pregnancies would have been complicated births, and 114.72 would have been non-complicated. The cost factor used for a complicated birth was $110,000; the cost factor used for a non-complicated birth was $8,000. Therefore, benefits savings is estimated at 5.28 * $110,000 + 114.72 * $8,000 = $1,498,560 (of which, $561,960 is attributable to expansion)

$18,300 + $3,360,000 + $142,290 - $1,498,560 = $2,022,660, or **$2,022.7 net total SFY2017 cost**

Analysis Continued

FUND SOURCE:
The Medicaid FMAP / GF rates for 2017 - 2022 for contraceptives is 90% / 10%
The Medicaid FMAP / GF rates for 2017 - 2022 for pregnancy-related services are 50% / 50%

The Medicaid Expansion FMAP / GF rate for SFY2017 is 97.5% / 2.5%
The Medicaid Expansion FMAP / GF rate for SFY2018 is 94.5% / 5.5%
The Medicaid Expansion FMAP / GF rate for SFY2019 is 93.5% / 6.5%
The Medicaid Expansion FMAP / GF rate for SFY2020 is 91.5% / 8.5%
The Medicaid Expansion FMAP / GF rate for SFY2021 - 2022 is 90% / 10%

In SFY2017, the total operating expenditures = $2,022.7.
We anticipate collecting $2,244.1 in federal receipts, and we anticipate a GF savings of ($221.4), based on the rates indicated above.

The $2,217.0 SFY2017 FEDERAL receipts amount is derived as follows:

System Enhancement
$18,300 * 0.5 FMAP = $9,150

Condoms
$2,100,000 * 0.9 FMAP = $1,890,000
$1,260,000 * 0.975 FMAP = $1,228,500

Oral Contraceptives
$89,325 * 0.9 FMAP = $80,392
$53,595 * 0.975 FMAP = $52,255

Benefit Savings, Unintended Pregnancies Avoided
($936,600) * 0.5 FMAP = ($468,300)
($561,960) * 0.975 FMAP = ($547,911)

$9,150 + $1,890,000 + $1,228,500 + $80,392 + $52,255 + ($468,300) + ($574,911) = $2,244,086 or $2,244.1

The logic of the calculations derived for 2018 through 2022 is the same except that the FMAP rates are adjusted to reflect the listed annual rates above, and the system enhancement cost is SFY2017 only.

Analysis Continued

The ($221.4) SFY2017 GF Match is derived as follows:

System Enhancement
+ $18,300 * 0.5 FMAP = $9,150

Condoms
+ $2,100,000 * 0.1 FMAP = $210,000
+ $1,260,000 * 0.025 FMAP = $31,500

Oral Contraceptives
+ $89,3250 * 0.1 FMAP = $8,932
+ $53,595 * 0.025 FMAP = $1,340

Benefit Savings Unintended Pregnancies Avoided
($936,600) * 0.5 FMAP = ($468,300)
($561,960) * 0.025 FMAP = ($14,049)

$9,150 + $210,000 + $31,500 + $8,932 + $1,340 + ($468,300) + ($14,049) = ($221,427) or ($221.4)

The logic of the calculations derived for 2018 through 2022 is the same except that the FMAP rates are adjusted to reflect the listed annual rates above, and the system enhancement cost is SFY2017 only.

Fiscal Note

State of Alaska
2016 Legislative Session

Bill Version: HB 345
Fiscal Note Number:
() Publish Date:

Identifier: HB345-DCCED-DOI-04-01-16
Title: INSURANCE COVERAGE FOR CONTRACEPTIVES
Sponsor: CLAMAN
Requester: (H) Health and Social Services

Department: Department of Commerce, Community and Economic Development
Appropriation: Insurance Operations
Allocation: Insurance Operations
OMB Component Number: 354

Expenditures/Revenues

Note: Amounts do not include inflation unless otherwise noted below. (Thousands of Dollars)

	FY2017 Appropriation Requested	Included in Governor's FY2017 Request	Out-Year Cost Estimates				
OPERATING EXPENDITURES	**FY 2017**	**FY 2017**	**FY 2018**	**FY 2019**	**FY 2020**	**FY 2021**	**FY 2022**
Personal Services							
Travel							
Services							
Commodities							
Capital Outlay							
Grants & Benefits							
Miscellaneous							
Total Operating	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**

Fund Source (Operating Only)

None							
Total	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**

Positions

Full-time							
Part-time							
Temporary							

Change in Revenues							

Estimated SUPPLEMENTAL (FY2016) cost: 0.0 *(separate supplemental appropriation required)*
(discuss reasons and fund source(s) in analysis section)

Estimated CAPITAL (FY2017) cost: 0.0 *(separate capital appropriation required)*
(discuss reasons and fund source(s) in analysis section)

ASSOCIATED REGULATIONS

Does the bill direct, or will the bill result in, regulation changes adopted by your agency? No
If yes, by what date are the regulations to be adopted, amended or repeated?

Why this fiscal note differs from previous version:

Not applicable, initial version.

Prepared By: Lori Wing-Heier, Director — Phone: (907)465-2560
Division: Division of Insurance — Date: 04/01/2016 10:00 AM
Approved By: Catherine Reardon, Director — Date: 04/01/16
Agency: Division of Administrative Services, DCCED

FISCAL NOTE ANALYSIS

STATE OF ALASKA
2016 LEGISLATIVE SESSION

BILL NO. HB 345

Analysis

HB 345 amends Title 21, the Insurance statutes, to require that individual and group healthcare insurance plans specifically provide coverage, for both men and women, for contraceptives for a full year, and cannot charge copay or a deductible.

The Division of Insurance does not anticipate fiscal impact from this legislation.

HB 345 Background

Fiscal Note

State of Alaska
2016 Legislative Session

Bill Version: SB 156
Fiscal Note Number:
() Publish Date:

Identifier: SB156CS-DHSS-HCMS-3-23-16
Title: INSURANCE COVERAGE FOR CONTRACEPTIVES
Sponsor: GARDNER
Requester: Senate HSS

Department: Department of Health and Social Services
Appropriation: Medicaid Services
Allocation: Health Care Medicaid Services
OMB Component Number: 2077

Expenditures/Revenues

Note: Amounts do not include inflation unless otherwise noted below. (Thousands of Dollars)

	FY2017 Appropriation Requested	Included in Governor's FY2017 Request	Out-Year Cost Estimates				
OPERATING EXPENDITURES	**FY 2017**	**FY 2017**	**FY 2018**	**FY 2019**	**FY 2020**	**FY 2021**	**FY 2022**
Personal Services							
Travel							
Services							
Commodities							
Capital Outlay							
Grants & Benefits	(1,355.7)		(1,355.7)	(1,355.7)	(1,355.7)	(1,355.7)	(1,355.7)
Miscellaneous							
Total Operating	**(1,355.7)**	**0.0**	**(1,355.7)**	**(1,355.7)**	**(1,355.7)**	**(1,355.7)**	**(1,355.7)**
Fund Source (Operating Only)							
1002 Fed Rcpts	(883.7)		(868.4)	(863.3)	(858.2)	(853.1)	(848.0)
1003 G/F Match	(472.0)		(487.3)	(492.4)	(497.5)	(502.6)	(507.7)
Total	**(1,355.7)**	**0.0**	**(1,355.7)**	**(1,355.7)**	**(1,355.7)**	**(1,355.7)**	**(1,355.7)**
Positions							
Full-time							
Part-time							
Temporary							
Change in Revenues							

Estimated SUPPLEMENTAL (FY2016) cost: 0.0 *(separate supplemental appropriation required)*
(discuss reasons and fund source(s) in analysis section)

Estimated CAPITAL (FY2017) cost: 0.0 *(separate capital appropriation required)*
(discuss reasons and fund source(s) in analysis section)

ASSOCIATED REGULATIONS

Does the bill direct, or will the bill result in, regulation changes adopted by your agency? yes
If yes, by what date are the regulations to be adopted, amended or repealed? 01/01/18

Why this fiscal note differs from previous version:

>System Enhancements: No systems changes will be made to restrict first dispensing to 3-months due to the requirement to pay for a 12-month supply for subsequent dispensings. A system edit would unduly restrict patient access. The Department will monitor fill patterns accordingly.
>Costs/Savings related to non-prescription contraceptives were removed to reflect elimination of non-prescription language in this bill version.

Prepared By: Margaret Brodie, Director — Phone: (907)334-2520
Division: Health Care Services — Date: 03/21/2016 09:22 AM
Approved By: Sana Efird, Assistant Commissioner — Date: 03/25/16
Agency: Health and Social Services

FISCAL NOTE ANALYSIS

STATE OF ALASKA
2016 LEGISLATIVE SESSION

BILL NO. CSSB156

Analysis

Administrative costs are captured in the Health Care Services Appropriation, Medical Assistance Administration Allocation in a separate fiscal note.

Benefits Costs
Oral Contraceptives: Duplication of Services
It is anticipated that there will be approximately 7,940 female Medicaid recipient oral contraceptive users annually (of which, 2,940 are through expansion). It is anticipated that approximately 10%, or 794 members who are oral contraceptive users may require duplication of services (e.g., therapy changes, replacement of lost or stolen contraceptives, and diverted contraceptives). Based on an average 4-month duplication of services, and based on a $45 per month National Average Drug Acquisition Cost average for oral contraceptives, the total duplication of services cost is estimated to be (794 members X 4 months X $45) = $142.9 (of which, $52.9 is attributable to expansion)

Benefits Savings
Of the approximately 8,000 female Medicaid members who are contraceptive users, we assume that 75% or 6,000 plan to use the oral contraceptive long-term (i.e., longer than 12 months). With a standard oral contraceptive failure rate of 9% as cited by the Centers for Disease Control, 540 unintended pregnancies would result. A report by Foster et. al. (2011) projects a decrease in failure rate of approximately 30% when oral contraceptives are dispensed in 12-month quantities, which would result in an oral contraceptive failure rate of 6%. However, based on variable factors in Alaska, we have estimated a failure rate of 7%. This 7% failure rate would approximate 420 unintended pregnancies. Therefore, it is approximated that the difference between a 9% failure rate and a 7% failure rate, or 120 unintended pregnancies, may potentially be avoided through dispensing 12-month quantities.

Based on Medicaid claims data, the rate of complicated births is approximately 4.4%. Applying this differential, we estimate that approximately 5.28 of the unintended pregnancies would have been complicated births, and 114.72 would have been non-complicated. The cost factor used for a complicated birth was $110.0; the cost factor used for a non-complicated birth was $8.0. Therefore, benefits savings is estimated at 5.28 X $110.0 + 114.72 X $8.0 = $1,498.6 (of which, $562.0 is attributable to expansion).

$142.9 + ($1,498.6) = ($1,355.6) net total FY2017 savings in this component.

FUND SOURCE:
The Medicaid FMAP for contraceptives is 90%
The Medicaid FMAP for pregnancy-related services is 50%

FMAP for the Medicaid expansion population changes by federal fiscal year for several years, settling at 90% for all services by calendar year 2022. Prorated by state fiscal year, the expansion FMAP rates are:

FY2017	97.5%
FY2018	94.5%
FY2019	93.5%
FY2020	92.5%
FY2021	91.5%
FY2022	90.5%

FISCAL NOTE ANALYSIS

STATE OF ALASKA
2016 LEGISLATIVE SESSION

BILL NO. CSSB156

Analysis Continued

Applying these several FMAP rates generates the following fund source splits.

FY2017 oral contraceptives cost

	total	*regular Medicaid @ 63%*	*expansion Medicaid @ 37%*	*total*
	$142.9	$90.0	$52.9	
federal		$81.0	$51.6	$132.6
GF match		$9.0	$1.3	$10.3

FY2017 savings, unintended pregnancies avoided

	total	*regular Medicaid @ 62.5%*	*expansion Medicaid @ 37.5%*	*total*
	($1,498.6)	($936.6)	($562.0)	
federal		($468.3)	($547.9)	($1,016.2)
GF match		($468.3)	($14.0)	($482.4)

FY2017 TOTAL

	total	*regular Medicaid*	*expansion Medicaid*	
	($1,355.7)	($846.6)	($509.1)	
federal		($387.3)	($496.4)	($883.7)
GF match		($459.3)	($12.7)	($472.0)

The department anticipates a net FY2017 savings of ($883.7) federal and ($472.0) GF match. The logic of the calculations for FY2018 - 2022 is the same, except that the expansion FMAP rates are adjusted annually, as explained above.

Promulgation of associated regulations will take approximately six months following State Plan Amendment approval by the Centers for Medicare and Medicaid Services, with implementation effective January 1, 2018.

NFIB

The Voice of Small Business®

ALASKA

February 24, 2016

The Honorable Matt Claman
Alaska State House of Representatives
State Capitol Building
Juneau, Alaska 99801-1182

RE: House Bill 345

Dear Representative Claman,

On behalf of the National Federation of Independent Business/Alaska, I wish to express our opposition to House Bill 345. The National Federation of Independent Business is the largest small-business advocacy group in the Alaska.

Health-care costs have been the No. 1 issue facing small-business owners since 1986, and those concerns are growing, according to NFIB's members. As health-care costs go through the roof, small-business owners have very few choices when selecting insurance coverage for their employees. The tipping point is here, and small businesses are begging for solutions to rising health-care costs, lack of access and other issues, not additional mandates.

For many small employers in Alaska insurance premiums for small groups or single coverage have increased again this year by 30 to 40 percent, a jaw-dropping statistic on top of double-digit increases in the past few years. This is completely unsustainable over the long-term. Much of the increase is driven by the additions to coverage by state mandates

Unfortunately, HB 345 mandates specified drug coverage that may not fit employee's needs but for which small employers providing health insurance bear the cost. Increased mandates force employers to consider whether they can afford to continue coverage or are forced by increased prices to eliminate health insurance for their employees. Mandates prevent small employers from providing affordable insurance programs tailored to its specific work force.

While this measure includes the state Medicaid program, it does not include the state employee programs. In fairness, if the state legislature does not believe it is a benefit important enough to mandate on its own programs, how can it be fair to mandate it on small employers and individual policy purchasers.

HB 345 is discriminatory against small employers as the mandate applies to those who provide coverage regulated by state insurance statutes, but not programs offered by the state and other governmental entities or large employers who typically offer ERISA programs. Thus it creates a less fair business environment for small employers.

Sincerely yours,

Dennis L. DeWitt
Alaska State Director

cc: NFIB Alaska Leadership Council
Representative Paul Seaton, Chair, House Health & Social Services Committee

The League of Women Voters

A Voice For Citizens, A Force For Change

c/o P.O. Box 90079, Anchorage, AK 99509-0079

April 5, 2016

Dear Representative Paul Seaton, Chair House Health and Social Services Committee:

The League of Women Voters of Alaska strongly supports HB 345 (companion to SB 156), a bill related to insurance coverage for contraceptives and other services that reduce the risk of unintended pregnancies. At the national level, the League of Women Voters of the United States supports primary care for all, care that includes "prenatal and reproductive health." When women have the consistent ability to plan their pregnancies, their families benefit through greater financial well-being, healthier living conditions, healthier children, greater opportunities, and a myriad of additional benefits.

While improving the quality of life for families, the ability to avoid unintended pregnancies also reduces costs for state and federal governments. In 2010 according to the Guttmacher Institute, the State of Alaska spent nearly $43 million on health costs related to unintended pregnancies while the federal government added another $71 million for a total cost of $114 million. Guttmacher reports that 48% of all pregnancies in Alaska in 2010 were unplanned and 64% of Alaska's unplanned pregnancies were publicly funded, representing the $43 million cost.

In addition, the cost benefits of supporting women in their efforts to plan their pregnancies goes far beyond the cost of the pregnancy itself. A woman who is able to plan a pregnancy can better guarantee that her health is at optimum level prior to pregnancy, reducing the risk of a difficult pregnancy and trauma to the child. Such planning reduces the possibility of increased health problems for the child, problems which can follow the child for years and require increased health and education costs for the State. A planned pregnancy increases a woman's ability to manage her role as income provider for a family and allows that family the best opportunity to remain as financially independent as possible. Supporting affordable contraceptives prescribed on a 12-month basis will undoubtedly reduce the number of unintended pregnancies in Alaska, thereby increasing family well-being and reducing State costs.

HB 345 can assist women and families to plan pregnancies so they are ready for the added responsibility of a child. In addition, costs to the State for unintended pregnancies can be reduced. This is a win-win bill that deserves consideration by the Legislature especially as it struggles with the budget crisis. Thank you for your consideration.

Sincerely,

Hetty Barthel

Hetty Barthel, Secretary
League of Women Voters of Alaska

The League of Women Voters is a nonpartisan political organization that encourages the informed and active participation of citizens in government and influences public policy through education and advocacy.

Jamie Renae Donley
6860 Tondi Lane
Anchorage, Alaska 99507
Telephone: (907)250-6894 / Email: dd1@gci.net

TO: Alaska Legislature

RE: Testimony requesting amendment to HB345 / SB156

April 5, 2016

Dear Legislators:

I am one of thousands of Alaskans that have had my thyroid removed and am 100 percent dependent on thyroid replacement medication to stay alive. Typically, people like myself see their doctor once a year to be tested and if necessary have their medication modified. But the State of Alaska health insurance will only provide thyroid medicine for 90 days. I request that HB 345 be amended to include thyroid supplement medicine to prescriptions that can be filled with one year of medicine.

If anything disrupted the availability of thyroid replacement medicine here in Alaska I would die. This makes the availability of thyroid medicine at least as important as birth control medicine.

The current bill should also be amended to specifically cover current State employees, State retirees, and their dependents.

Thank you for your consideration of this request.

Jamie R Donley

Jamie R. Donley

Taneeka Hansen

From: Samantha Savage <snsavage2@gmail.com>
Sent: Tuesday, April 05, 2016 10:41 AM
To: Rep. Paul Seaton; Rep. Liz Vazquez; Rep. Neal Foster; Rep. Louise Stutes; Rep. David Talerico; Rep. Geran Tarr; Rep. Adam Wool
Subject: Please Support HB 345

Categories: Taneeka

My name is Samantha Savage and I live in House District 5.

I am writing today to encourage you to support SB 156. For many many women oral contraception is their method of choice for various personal medical reasons. Alaskan women face more barriers trying to access all medications due to geographic and occupational reasons (women who live and work in rural communities or on fishing vessels for example). Speaking from my own life as someone who left the Mat-Su Valley to attend school in Fairbanks, trying to get my prescription refilled was an incredible burden as I could only have it refilled on a month by month basis.

Having the ability to have 12 months of birth control covered by an insurance plan and medicaid at one time saves in costs related to doctors visits to the women seeking medication, and it saves money related to unintended pregnancy.

I urge your support of this bill that would have a positive impact on the lives of many Alaskan women.
--
Samantha Savage
Fairbanks

Tanana Chiefs Conference

April 5, 2016

To: House Health & Social Services Committee Members

Re: Tanana Chiefs Conference Support of House Bill 345 (HB345)

Dear House Health & Social Services Committee Members,

Tanana Chiefs Conference (TCC) fully supports HB 345. This important piece of legislation mandates 12-month insurance coverage and uninterrupted access to contraceptive medications for women in Alaska.

The unique and extremely rural nature of much of Alaska means that there is not a pharmacy "on the corner" or "down the road" in every community. Most rural villages served by TCC are off the road system and hundreds of air miles away from the nearest pharmacy. The distance to the nearest pharmacy is compounded by high airfare costs to Fairbanks or long waits for mail deliveries by the U.S. Postal Service. By statutorily requiring insurers to cover a 12 month supply of contraceptives, patients in rural and roadless regions of our state will not have the continuous problem of running out of refills of this critically important medication.

This is of particular concern to Tanana Chiefs Conference. Alaska Native women have higher fertility rates than all other races in Alaska (almost twice as high in the 18-19 year old range) with the prevalence of unintended pregnancy following this trend. We know that access and cost are contributing factors to these statistics. HB 345 is an important step in helping all Alaskan women have affordable and dependable access to birth control.

Respectfully,
Tanana Chiefs Conference

Victor Joseph,
Chiefs Conference

Taneeka Hansen

From: Beth Leban <coleevan9@hotmail.com>
Sent: Tuesday, April 05, 2016 3:41 PM
To: Rep. Paul Seaton; Rep. Liz Vazquez; Rep. Neal Foster; Rep. Louise Stutes; Rep. David Talerico; Rep. Geran Tarr; Rep. Adam Wool
Cc: Rep. Sam Kito
Subject: HB 345 (House companion to SB 156) - 12 months supply of birth control:

Categories: Taneeka

Dear Representatives,

SB156 makes complete sense. It is practical and a pragmatic way to ensure women receive the kind of health care that they choose. I support this legislation and hope that you do too.

Elizabeth Leban

Juneau, AK

Number of Oral Contraceptive Pill Packages Dispensed and Subsequent Unintended Pregnancies

ARTICLE in OBSTETRICS AND GYNECOLOGY · MARCH 2011

Impact Factor: 5.18 · DOI: 10.1097/AOG.0b013e3182056309 · Source: PubMed

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Number of Oral Contraceptive Pill Packages Dispensed and Subsequent Unintended Pregnancies

Diana Greene Foster, PhD, Denis Hulett, Mary Bradsberry, Philip Darney, MD, MSc, and Michael Policar, MD, MPH

OBJECTIVE: To estimate how number of oral contraceptive pill packages dispensed relates to subsequent pregnancies and abortions.

METHODS: We linked 84,401 women who received oral contraceptives through the California family planning program in January 2006 to Medi-Cal pregnancy events and births conceived in 2006. We compared pregnancy rates for women who received a 1-year supply of oral contraceptive pills, three packs, and one pack.

RESULTS: Women who received a 1-year supply were less likely to have a pregnancy (1.2% compared with 3.3% of women getting three cycles of pills and 2.9% of women getting one cycle of pills). Dispensing a 1-year supply is associated with a 30% reduction in the odds of conceiving an unplanned pregnancy compared with dispensing just one or three packs (confidence interval [CI] 0.57–0.87) and a 46% reduction in the odds of an abortion (95% CI 0.32–0.93), controlling for age, race or ethnicity, and previous pill use.

CONCLUSION: Making oral contraceptives more accessible may reduce the incidence of unintended pregnancy and abortion. Health insurance programs and public health programs may avert costly unintended pregnancies by increasing dispensing limits on oral contraceptives to a 1-year supply.

(Obstet Gynecol 2011;117:566–72)
DOI: 10.1097/AOG.0b013e3182056309

LEVEL OF EVIDENCE: III

See related articles on pages 551 and 558.

From the Bixby Center for Global Reproductive Health, Department of Obstetrics, Gynecology, and Reproductive Sciences, San Francisco General Hospital, University of California, San Francisco, San Francisco, California.

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Financial Disclosure
The authors did not report any potential conflicts of interest.

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Oral contraceptive pills are the most commonly used reversible method of contraception in the United States.[1] Although oral contraceptive pills are highly effective when used perfectly (3 pregnancies per 1,000 users in the first year of use[2]), typical patterns of use, with approximately half of women regularly missing one or more pills per cycle,[3,4] is associated with a much higher pregnancy rate (80 pregnancies per 1,000 users in the first year of use).[5]

Recent work has examined whether dispensing a greater number of oral contraceptive pill packs affects contraceptive continuation. Our previous work showed dispensing a 1-year supply at California family planning clinic visits was associated with lower health care costs and higher contraceptive continuation. In our first study, women who received a 1-year supply of pills were more likely to continue use at 15 months after the initial dispensing visit than women who received one or three packs (43% compared with 20%–22%).[6] A study[7] in Jamaica showed higher continuation at 1 month among women who received four cycles of pills at a visit compared with women who received one cycle of pills followed by three cycles of pills at the subsequent visit. However, women who received the larger initial quantity of packs in Jamaica did not show higher continuation at 5 months. Our objective was to estimate how the number of oral contraceptive pill packages dispensed relates to subsequent pregnancies and abortions.

MATERIALS AND METHODS

Five attributes of publicly funded reproductive health care in California permit the comparison of data from the state family planning program on specific number of oral contraceptive packs dispensed and the deliveries and abortions of pregnancies that occur in the subsequent year. First, Medi-Cal, California's Medicaid program, is in one of only 17 states that

cover both abortion and birth.[8] Second, Family Planning, Access, Care and Treatment (PACT), a Medicaid family planning waiver program that provides contraceptives at no cost to women at risk for pregnancy with incomes up to 200% of the federal poverty level, is a fee-for-service program that records how many packs of pills the women are dispensed. Third, nearly everyone who receives contraceptives under Family PACT would qualify for Medicaid pregnancy-related services if they became pregnant. Fourth, some Family PACT clinics have the authority to dispense pills on site. Those clinics are not bound by the 100-day supply limit at pharmacies and may dispense up to a 1-year supply. And finally, the number of women provided contraceptives within Family PACT is large–almost 1 million receive any contraceptive method each year and more than 80,000 women receive oral contraceptive pills each month, permitting the comparison of events such as births and abortions after contraceptive discontinuation.

We compared pregnancy rates between women who received a 1-year supply (12 or 13 packs) compared with one or three packs using a linkage between contraceptive dispensing claims in Family PACT and pregnancy events in Medi-Cal. We are particularly interested in whether providing a 1-year supply reduces unintended pregnancy rates, believing that it is a better outcome measure than the surrogate markers for pregnancy that have been used previously. To that end, we focused particular attention on abortions because abortions, unlike births, occur only rarely from intended pregnancies.

To identify pregnancy events among Family PACT clients, this study linked Family PACT client eligibility records with both the Medi-Cal beneficiary records in Medi-Cal Eligibility Data System and the California Birth Statistical Master File. A probabilistic linking algorithm was used because unique identifiers such as social security numbers are not available in many records.[9] Consequently, approximately half of the Medi-Cal Eligibility Data System records, more than two-thirds of the Birth Statistical Master File records, and fewer than half of the Family PACT records contain a social security number. The probabilistic linking process linked individuals based on comparisons of birth date, name, gender, ethnicity, country of birth, language, county of residence, and postal code, as well as social security number, when available. We received approval from the University of California San Francisco Institutional Review Board to perform the claims data analysis and link to birth and Medi-Cal records (University of California San Francisco Committee for Human Research H429-16233-12A).

The Fellegi-Sunter model of record linkage[10,11] offers the ability to mathematically decide if a pair of records from two disparate data files belongs to the same person. A vector of weighted scores is created, indicating the levels of agreement and disagreement between corresponding variables within a record pair. This vector is used to create a composite score for the pair. The scores form a bimodal distribution of scores, one peak at the mean of the links and another at the mean of the non-links. Sensitivity and specificity analyses provide an optimal score threshold, above which the record pairs are considered links and below which are non-links. The threshold of the linking process for this analysis was set to obtain an equal number of errors among the links as among the non-links. Among the links, the error was estimated to be between 2% and 6%. Among the Family PACT to Medi-Cal Eligibility Data System links, 46% agreed fully on social security number. Among Family PACT to Medi-Cal Eligibility Data System links verified by social security number agreement, 95% agreed on seven or more other demographic variables. Among the links without benefit of social security number agreement, 86% agreed on seven or more variables. Among the Family PACT to Birth Statistical Master File links, 45% agreed fully on social security number. Among Family PACT to Birth Statistical Master File links verified by social security number agreement, 90% agreed on seven or more other variables. Among links without benefit of social security number agreement, 88% agreed on seven or more variables.

We ran a linkage from the 84,401 women who received oral contraceptive pills in January 2006 to 397,187 women whose Medi-Cal or Birth Statistical Master File pregnancy event (birth, miscarriage, abortion, or ectopic pregnancy) was conceived between January 2006 and January 2007. Exact dates of conception are not available in the Medi-Cal Eligibility Data System database. However, links made between Family PACT mothers and the Birth Statistical Master File births in 2006 and 2007 allowed us to obtain the date of last menses associated with 96% of linked births. In cases in which a matched record was found in the Birth Statistical Master File but no last menstrual period was recorded, we estimated the length of gestation by creating a linear model on birth weight and ethnicity. Conception for deliveries is set at 14 days after the date of last menses. For pregnancy events obtained from Medi-Cal Eligibility Data System when last menstrual period was not available, average gestation periods were used. Pregnancies

ending in surgical or spontaneous abortions were assumed to have been conceived 8 weeks before the abortion (10 weeks since last menstrual period). Pregnancies ending in medication abortion and ectopic pregnancies were assumed to have been conceived 5 weeks before the termination of the pregnancy (7 weeks since last menstrual period).

Women were considered to be continuously protected if they received enough pill cycles to continue pill use without a break. There was a 28-day grace period in our calculations of contraceptive protection to allow for the use of a remaining cycle from a previous visit for women not new to the pill and for new users to wait one menstrual cycle before initiating pill use. We assumed that women were not using oral contraceptive pills on an extended regimen in which they skip the inactive pills. We consider that a woman has switched to another contraceptive method if she receives an injectable, patch, ring, intrauterine device, or sterilization procedure. Women who receive condoms after having been dispensed oral contraceptive pills are not assumed to have switched methods because they may be using condoms concurrently as a back-up method or for prevention of sexually transmitted infections. A pack of oral contraceptive pills in this article refers to a supply sufficient for a 28-day period. A 1-year supply is considered to be 12 or 13 packs.

We use χ^2 tests to examine differences in continuation, method switching, and pregnancy rates by number of pill packs dispensed. We used multivariable logistic regression models to examine the effect of number of cycles of pills, controlling for other factors that may affect pregnancy rate such as age, parity, race or ethnicity, whether the woman is new to Family PACT (and may be more motivated to prevent pregnancy), and, if an established Family PACT client, whether they have received oral contraceptive pills in the previous year. Demographic data came from the client enrollment records. Women who reported being Hispanic were separated by primary language because English-speaking Latinas in California have been shown to have lower fertility and greater motivation to avoid pregnancy than Spanish-speaking Latinas.[12] At the time our analysis began, January 2006 was chosen as the index month because it was the latest month for which both Family PACT and Medi-Cal data were complete.

RESULTS

Table 1 describes the 84,401 women who were dispensed oral contraceptive pills through Family PACT in January 2006. Most women (58%) received three packs, one in five (20%) received one pack, 11% received 12 or 13 packs, and 10% received another quantity of pill packs. Young women (younger than age

Table 1. Characteristics of Women Receiving Oral Contraceptives in Family PACT in January 2006 by Number of Cycles Dispensed

	Number of Cycles Dispensed in January 2006						
	1	3	6	10	12 or 13	Other	n
Total	20	58	2	1	11	7	84,401
Age (y)							
10–19	17	47	4	2	18	11	15,180
20–29	20	57	2	1	12	7	45,201
30–39	21	66	2	1	5	6	18,904
40 or older	20	69	1	1	4	5	5,104
Race or ethnicity							
Missing	18	51	3	2	18	9	2,648
Asian or Pacific Islander	18	49	3	2	20	8	6,130
African American	19	54	3	1	15	8	2,965
Latina	22	51	3	2	14	9	13,140
Latina, Spanish	20	70	1	0	3	5	36,132
White, non-Latina	17	47	4	2	19	11	23,386
Parity							
0	18	50	3	2	17	9	45,558
1	21	64	2	1	6	6	14,400
2 or more	21	70	1	1	3	5	24,443
Type of provider dispensing							
Pharmacy	24	74	0	0	0	3	56,472
Clinic	11	27	7	4	34	17	27,929

PACT, Planning, Access, Care, and Treatment.
Data are % unless otherwise specified.

20) were most likely to receive a 1-year supply (18%) and women 40 and older were least likely (4%). Asians and white non-Latina women (20% and 19%, respectively) were more likely to get a 1-year supply; Spanish-speaking Latinas were least likely to get a 1-year supply (3%). Nulliparous women were more likely to get a 1-year supply than women with one or more children. Consistent with dispensing policy, pharmacies always dispensed a maximum of three packs of oral contraceptive pills, which is the maximum number allowable with a 100-day supply limitation. One-quarter (24%) of women receiving their pills at pharmacies received one cycle and three-quarters (74%) received three cycles. In January 2006, one-third of women received their pills at clinics that can dispense a 1-year supply. At these clinics, 11% of women got one cycle, 27% got three cycles, and 34% got a 1-year supply.

In Family PACT as a whole, teenagers are more likely than older women to receive a 1-year supply because they disproportionately receive care in clinics that are able to dispense a 1-year supply. However, at these clinics, teenagers are less likely than older women to receive the full 1-year supply (odds ratio [OR], .76). Women in their 20s and 30s are more likely than teenagers and women in their 40s to receive a 1-year supply. Racial ethnic differences are prominent. Asians are more likely (OR 1.15) and Latinas, particularly Spanish-speaking Latinas (OR .66), are less likely to receive a 1-year supply compared with white non-Latina women in the program as a whole and within clinics that are able to dispense a 1-year supply. Independent of age, ethnicity, and language, women who have no children are more likely than women with one or more children to get a 1-year supply (OR 2.04). Women who were dispensed oral contraceptive pills in the previous year are less likely to get a 1-year supply, even at clinics that can dispense a 1-year supply on site (OR .69). New clients to the Family PACT Program are more likely to get a 1-year supply of oral contraceptive pills than established clients (OR 1.48; Table 2).

Women who receive a 1-year supply of oral contraceptive pills are more likely to continue to use them than women who get one or three packs of pills. Just more than one in five (21%) of women who received one pack in January 2006, 25% of women who received three packs, and 40% of women who receive a 1-year supply had received sufficient packs of pills in time to continuously use oral contraceptive pills for the subsequent 15-month period. Women who received a 1-year supply were less likely (7%) to switch to another method of contraception than women who received one cycle (11%) or three cycles (10%) in the next 18 months (Table 3).

An estimated 2.8% of women who were dispensed oral contraceptive pills in January 2006 conceived a pregnancy in the subsequent year and the resolution (birth, induced abortion, ectopic pregnancy, or spontaneous abortion) was paid for by Medi-Cal. Women who received a 1-year supply

Table 2. Odds of Receiving a 1-Year Supply of Oral Contraceptives: Results of Multivariable Logistics Models

	All Family PACT	Only Providers Who Can Dispense 1-Year Supply
Age (y)		
10–19	1.33* (1.13–1.57)	0.76* (.63–0.92)
20–29	1.58* (1.35–1.86)	1.21* (1.01–1.45)
30–39	1.33* (1.12–1.57)	1.23* (1.02–1.48)
40 or older	Reference	Reference
Missing race or ethnicity	0.94 (0.85–1.05)	1.10 (.97–1.24)
Asian or Pacific Islander	1.09* (1.02–1.18)	1.15* (1.06–1.25)
African American	.73* (.66–.82)	.93 (.82–1.05)
English-speaking Latina	.70* (.65–.74)	.86* (.80–.92)
Spanish-speaking Latina	.23* (.21–.24)	0.66* (0.60–.72)
White, non-Latina	Reference	Reference
Nulliparous	2.39* (2.17–2.62)	2.04* (1.83–2.27)
1 child	1.36* (1.23–1.52)	1.42* (1.26–1.60)
2 or more children	Reference	Reference
Received pills in 2005	.38* (.36–.40)	.69* (.65–.73)
New client in January 2006	1.80* (1.68–1.92)	1.48* (1.38–1.60)
Established client, new pill user	Reference	Reference
n	84,389	27,927

PACT, Planning, Access, Care, and Treatment.
Data are odds ratio (95%) confidence interval unless otherwise specified.
* $p < 0.05$.

Table 3. Contraceptive Continuation and Pregnancies Conceived in the Subsequent Year by Number of Oral Contraceptive Packs Dispensed in January 2006

No. of Cycles Received at First Visit in January 2006	n	Continuation at 15 mo	Switch to Another Primary Method	Pregnancy Conceived*	Induced Abortion*
1	16,471	21	11	2.9	.52
3	49,024	25	10	3.3	.63
12–13	9,549	40	7	1.2	.18
Other	9,357	38	10	2.0	.35
Total	84,401	27	10	2.8	.53

Data are % unless otherwise specified.
All differences by number of packs dispensed are significant at the .05 level using c^2 test.
*Includes only those pregnancies in which medical care for the pregnancy outcomes were paid for by Medi-Cal.

were less likely to have a pregnancy (1.2% compared with 2.9% of women getting one cycle and 3.3% of women getting three cycles; $P<.05$). Almost one-fifth (19%) of pregnancies ended in an induced abortion. The rate of Medi-Cal–funded induced abortions ranged from 0.18% among women who received a 1-year supply to 0.63% among women who received three cycles ($P<.05$; Table 3).

Results of a multivariable analysis of the pregnancy rate and abortion rate in the context of client demographics, family planning history, and number of cycles dispensed are shown in Table 4. Dispensing a 1-year supply is associated with a 30% reduction in the odds of conceiving a pregnancy in the subsequent year and a 46% reduction in the odds of an abortion, controlling for age, race or ethnicity, and previous pill use.

DISCUSSION

Dispensing a 1-year supply is associated with a significant reduction in the odds of conceiving an unplanned pregnancy compared with dispensing just

Table 4. Predictors of Conceiving a Pregnancy and Terminating a Pregnancy in the Subsequent Year by Number of Oral Contraceptive Packs Dispensed in January 2006: Results of a Multivariable Model

	Odds of Conceiving a Pregnancy in the Subsequent 12 mo	Odds of Terminating a Pregnancy Conceived in the Subsequent 12 mo
Race or ethnicity		
Missing	2.15* (1.59–2.90)	2.23* (1.11–4.48)
Asian or Pacific Islander	1.56* (1.22–1.99)	2.06* (1.21–3.52)
African American	1.87* (1.38–2.53)	2.15* (1.10–4.22)
Latina	2.46* (2.07–2.93)	2.55* (1.69–3.85)
Latina, Spanish	4.65* (4.01–5.39)	4.35* (3.06–6.19)
White, non-Latina	Reference	Reference
Number of pill packs dispensed		
1	Reference	Reference
3	1.08 (.97–1.20)	1.16 (.91–1.47)
12–13	.70* (.57–0.87)	.54* (.32–0.93)
Other	.91 (.76–1.08)	.91 (.61–1.37)
Age (y)		
10–19	1.46* (1.16–1.83)	1.74 (.96–3.13)
20–29	1.78* (1.47–2.16)	2.24* (1.35–3.74)
30–39	1.65* (1.35–2.01)	2.43* (1.45–4.07)
40 or older	Reference	Reference
Client status		
Established client, new pill user	Reference	Reference
Established client, established pill user	.96 (.87–1.06)	.86 (.69–1.06)
First visit to Family PACT (n=84,389)	.57* (.45–.72)	.55* (.32–0.96)

PACT, Planning, Access, Care, and Treatment.
Data are odds ratio (95%) confidence interval.
* $p < 0.05$.

one or three packs. The cause of this reduction in pregnancies cannot be determined from these data. Most obviously, a greater supply of oral contraceptive pills may facilitate continuation of use by obviating the need for repeated time-consuming visits to a clinic or pharmacy for resupply; improved access and convenience may explain higher continuation among women given a 1-year supply. There is also a psychological explanation: each resupply visit is an opportunity to reconsider continuation of use. Being given a 1-year supply may enhance the expectation that the method is acceptable and safe, whereas fewer packs may suggest that the woman is likely to experience side effects and needs to reconsider use of the method at each resupply visit.

Our results are likely affected by a selection effect whereby more compliant users are given a larger supply of oral contraceptive pills. The women receiving oral contraceptive pills in Family PACT were not randomized to receiving one, three, or 13 packs. We cannot control for strength of intentions to avoid pregnancy or continue oral contraceptive pill use. However, we have controlled for factors that may be related to pill continuation, including age, race or ethnicity, and pill use in the previous year. We were not able to control for educational attainment; however, the population served by Family PACT has low income and likely has disproportionately low educational attainment as well. The effect of a 1-year supply of oral contraceptive pills on abortion rates controlling for demographic and previous use does indicate that not all pregnancies were planned in advance, and dispensing a greater supply of pills may reduce unintended pregnancy.

Another potential source of bias lies in which providers are permitted to dispense a 1-year supply. Only providers who dispense on-site, typically Planned Parenthood clinics, county health departments, student health clinics, and privately owned family planning clinics, can dispense a 1-year supply of oral contraceptive pills. For a variety of reasons, private practice providers do not stock and dispense oral contraceptive pills and instead write prescriptions that are transmitted to pharmacies. To the extent that the first group of providers takes more care in contraceptive counseling, differences in observed pregnancy rates may be attributable to differences in counseling rather than number of packs dispensed. However, there is no formal evidence that, even if the quality of counseling was higher at the first provider group, contraceptive counseling is associated with higher continuation.

Our study is limited to only those pregnancies with a resolution covered by the Medi-Cal program. The total pregnancy rate of 2.8% is significantly lower than we would have expected based on typical use failure rates of the oral contraception of 8%.[13] Induced abortions appear to be particularly undercounted; if there were no planned pregnancies in this group, then we would have expected to see an equal ratio of births to abortions rather than a ratio of 5 to 1.[14] Pregnancies ending in induced abortion may have been paid out of pocket because women may not know that Medi-Cal covers abortion, they may have been unable to find a provider who accepts Medi-Cal, or they may have decided to pay cash to maintain confidentiality. Even if induced abortions are undercounted in these data, the extent of abortion undercounting is unlikely to vary by number of packs dispensed.

Making oral contraceptive pills more accessible may reduce the incidence of unintended pregnancy and abortion. If all 65,000 women who received only one or three packs of pills experienced the same pregnancy and abortion rates as women who received a 1-year supply, then almost 1,300 publicly funded pregnancies and 300 abortions would have been averted. Health insurance programs and public health programs may avert costly unintended pregnancies by increasing dispensing limits on oral contraceptive pills to a 1-year supply.

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Alaska Dispatch News

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Matt Davis
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Main Image:
gavel [1]

When we talk about abortion in Alaska, the discussion often morphs into a pro-choice, pro-life debate that, by virtue of being grounded in personal beliefs, is unlikely to yield an answer that satisfies both sides. If we accept this stalemate, though, we miss an important point: the surest way to prevent abortions is to reduce the number of unintended pregnancies.

The good news is almost everyone agrees that allowing women to control whether or not they become pregnant is a good thing. Despite this consensus, however, according to the Guttmacher Institute, whose mission is to advance sexual and reproductive health worldwide, around half of pregnancies in the United States are unintended [2]. In 2011, this translated into 18 percent of pregnancies nationwide ending in abortions. In Alaska the figure was 12 percent.

According to the Alaska Bureau of Vital Statistics [3], there were 1,629 abortions performed in Alaska in 2012. If we are serious about reducing that number, we will need to follow the lead of places like Colorado, where state officials say a state-run family planning initiative reduced the abortion rate [4] of women ages 15-19 by 42 percent and of women 20-24 by 18 percent between 2009-2013. The secret behind this incredible success? Increased access to long-acting, reversible contraceptives like intrauterine devices and implants. Fifty-one percent of women in Alaska who received abortions in 2012 were under 25 years old, so we should pay close attention to these efforts and successes.

Sadly, our public officials have sometimes resorted to blocking broader health-care access as a means of restricting abortion access. For example, in 2010 Gov. Sean Parnell vetoed the expansion of Denali KidCare [5] -- Alaska's version of the federal Children's Health Insurance Program that provides care to poor women and their children -- saying that, "My intention here today is to make sure we don't expand state government funding of abortions here in Alaska." That decision kept up to 1,300 children and 225 pregnant women from accessing the program.

At the beginning of November, the state of Alaska announced it will continue attempting to restrict low-income women's ability to access abortions via Medicaid funds by appealing a Superior Court ruling [6] in Planned Parenthood [7] v. Streur [8]. In striking down a state regulation that severely narrowed the definition of 'medical necessity' as it relates to abortion provision, the court described how the regulation came to be [7] in the first place: "Contrary to normal DHSS procedure, Commissioner William Streur developed the abortion regulation on his own. DHSS staff did not participate in the drafting of the regulation. The DHSS medical director played no role. No abortion providers were consulted." Of note, former Commissioner Streur is not a physician.

The American College of Obstetricians and Gynecologists states in its abortion policy statement [9], "Like all medical matters, decisions regarding abortion should be made by patients in consultation with their health care providers and without undue interference by outside parties."

Traditionally, the state has allowed patients and physicians to determine together what may or may not constitute a medical necessity. I suspect most Alaskans would prefer the government not interfere with that relationship.

If we are truly invested in women's health, let's support it by increasing access to primary care and family planning services rather than targeting low-income women's access to abortion services. As Judge Suddock wrote, "Women voluntarily assume the risks of pregnancy in the joyful context of a wanted child. But Alaskan women denied Medicaid abortions by a restrictive standard who are unable to beg, borrow, or earn $650 (or far more for an out-of-state second-trimester abortion) would be forced to carry to term without voluntarily assuming those risks."

I strongly urge Gov. Walker and Attorney General Richards to reconsider their appeal and to refrain from imposing their personal beliefs on low-income Alaskan women. Whether you are for or against abortion access, let's work together to reduce the need for it using evidence-based public health measures.

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Correction: *An earlier version of this commentary mistakenly referred to a federal initiative as the "Children's Health Insurance Plan." The correct title is "Children's Health Insurance Program."*

The views expressed here are the writer's own and are not necessarily endorsed by Alaska Dispatch News, which welcomes a broad range of viewpoints. To submit a piece for consideration, email commentary(at)alaskadispatch.com [10].

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Number of Oral Contraceptive Pill Packages Dispensed, Method Continuation, and Costs

Diana Greene Foster, PhD, Ram Parvataneni, MD, MPH, Heike Thiel de Bocanegra, PhD, MPH, Carrie Lewis, MPH, Mary Bradsberry, and Philip Darney, MD, MSc

OBJECTIVE: To estimate the effect of the number of cycles of oral contraceptive pills (OCPs) dispensed per visit on method continuation, pill wastage, use of services, and health care costs.

METHODS: We used paid claims data for 82,319 women dispensed OCPs through the California Family PACT (Planning, Access, Care, and Treatment) Program in January 2003 to examine contraceptive continuation and service use.

RESULTS: Women who received 13 cycles at their first visit in January 2003 received 14.5 cycles over the course of 2003 compared with 9.0 cycles among women receiving three cycles at first visit. When client characteristics are controlled, women who received 13 cycles were 28% more likely to have OCPs on hand and twice as likely to have sufficient OCP cycles for 15 months of continuous use compared with women who received three cycles. Oral contraceptive pill wastage was higher among women initially dispensed 13 cycles (6.5% of the cycles dispensed) than among women who received three cycles (2% of cycles). Despite having one fewer clinician visit, women dispensed 13 cycles were more likely to receive Pap and *Chlamydia* tests and less likely to have a pregnancy test than women initially dispensed fewer cycles. Over the course of the year, Family PACT paid $99 more for women who received three cycles and $44 more for women who received only one cycle than it did for women who received 13 cycles at their first visits of 2003.

CONCLUSION: Dispensing a year's supply of OCP cycles to women is associated with higher method continuation and lower costs than dispensing fewer cycles per visit.

(Obstet Gynecol 2006;108:1107–14)

LEVEL OF EVIDENCE: II-2

Discontinuation and imperfect use of oral contraceptive pills (OCPs) is a leading cause of unintended pregnancy nationally. Women who use oral contraceptives experience many more pregnancies than would be expected with perfect use; 5–8% of women are estimated to have a contraceptive failure in the first year of OCP use.[1,2] Among women presenting for abortion in 2000 and 2001 in the United States, one woman in seven was using OCPs in the month she conceived.[3] Given that an estimated 11.6 million American women use oral contraceptive pills as their primary contraceptive method,[4] improving pill use can significantly reduce the number of abortions and unintended births in the United States.

A small study by Smith and Oakley[5] found that the third leading cause of missed pills was "no new pill pack," after "away from home" and "forgot." Although women report "running out of pills" as a common reason for erratic pill taking, the role of the number of OCP cycles dispensed on method continuation has received little research attention. Phillips et al[6] demonstrated that, in 1996, 73% of American women obtained only a 30-day supply of OCPs per visit to the clinic or pharmacy, requiring a refill every month for continued use. Despite the potentially important role of dispensing policies on method compliance and continuation, the effect of the number of cycles dispensed on failure rates is unknown.

Most health plans limit prescriptions of all drugs filled at a community pharmacy to a 30-day supply.[7] State Medicaid polices vary across the country, but no more than a 100-day supply is dispensed at any one

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time.[8] Family planning waiver programs, which allow states to expand eligibility for family planning services to women otherwise ineligible for Medicaid, vary widely in dispensing limits for OCPs from 1 to 17 cycles dispensed per visit.

Data from the state Medicaid waiver family planning program in California provide some insight on the effect of dispensing limits on oral contraceptive continuation. The Family PACT (Planning, Access, Care, and Treatment) Program in California provides clinical services for family planning and reproductive health at no cost to over one and a half million low-income California residents per year. Details of the program have been previously reported.[9] Family PACT policy allows eligible public and nonprofit clinics to dispense up to 13 cycles of OCPs per visit on site. Most clients going to private providers must receive supplies at pharmacies that abide by the Medi-Cal limit of a 100-day supply. As part of an effort to control costs and reduce wastage, this study was undertaken to determine the feasibility of the 13-cycle dispensing practice at public and nonprofit clinics. Our objective was to estimate the difference, if any, in method continuation, pill wastage, service use, and program costs when different quantities of OCPs are dispensed.

MATERIALS AND METHODS

We used paid claims data on service use and OCP dispensing from the Family PACT Program. The study population consisted of the 82,319 women who were dispensed oral contraceptives through the Family PACT Program in the month of January 2003. This month was chosen to allow sufficient time for claims to be submitted and paid through the end of December 2004. Based on Family PACT data on time to submission and payment, we estimated that the claims data were 99.9% complete at the time we received them. The paid claims database is a nearly complete universe of services delivered through the Family PACT Program. There were 390 clients (0.5%) who may have received pills but whose claims were not paid.

We examined all Family PACT visits and services for the women who received OCPs in January 2003 and looked at use of services such as office visits, *Chlamydia* tests, Pap tests, and pregnancy tests for these women during 2003. We calculated direct Family PACT expenditures for these women for all visits during 2003, including all pharmacy, clinician, and laboratory claims. To estimate continuation of oral contraceptive use, we examined claims up to 24 months after January 2003. This study was approved by the University of California San Francisco Committee on Human Research as part of the university's Family PACT Program Support and Evaluation project.

Information on client characteristics comes from the Family PACT enrollment form, reactivation of which must occur annually to maintain eligibility for services. Women were considered to be new Family PACT clients if they first enrolled in Family PACT at their January 2003 dispensing visit. Among women who are not new to Family PACT, we can distinguish between new and established OCP users based on their receipt of OCPs in 2002.

Paid claims data allowed us to construct several indicators of contraceptive continuation. We counted total months of protection dispensed to an individual in 2003 and determined whether there was pill dispensing to that same client in 2004. We were also able to determine whether a woman received a sufficient number of oral contraceptive cycles to be covered on the first of each month subsequent to January 2003. We used April 2004, 15 months after the initial dispensing, as an index date for continuation because women initially dispensed 13 cycles would need refills before that time. We distinguished sporadic use or use with gaps in protection from continuous use by examining the quantity of cycles dispensed and timing of visits to get more oral contraceptive supplies. Women were considered to be continuously protected if they received enough pill cycles to continue pill use without a break. There was a 28-day grace period in our calculations of contraceptive protection to allow for the use of a remaining cycle from a previous visit for women not new to the pill and for new users to wait one menstrual cycle before initiating pill use. We assumed that women were not using OCPs on an extended regimen where they skip the inactive pills.

To estimate wastage of oral contraceptives we looked at two distinct types of wastage. The first, *method-switching wastage,* occurs when another method of contraception was provided to the client before she could have consumed her OCPs. For example, if a woman received an injectable contraceptive 2 months after a visit in which she received three cycles of pills, one OCP cycle was considered to be wasted. Barrier methods were excluded from estimates of method-switching wastage because we could not distinguish between dual use and switching between barrier methods and oral contraceptives. The second type of wastage, *pill-oversupply wastage,* is what would occur if a woman received one brand of OCPs and switched to another brand before using the first or if she lost her

pills and returned for more. A cycle of oral contraceptives was considered to be wasted if the client received additional pills while having more than two cycles left from a previous visit.

For the purpose of analysis, we present results by the number of one-cycle packs of pills dispensed in January 2003. The three most frequent quantities in which OCPs cycles are dispensed are 1, 3, and 13. We combined all other quantities into the *other* category. We used χ^2 tests for differences by initial dispensing quantities for categorical and dichotomous variables. We evaluated the significance of continuous variables by initial dispensing quantity using analysis of variance tests where noted. To identify the effect of dispensing quantity on the continuation of pill use for 15 months, we used a multivariable logistic regression to control for factors associated with receiving 13 cycles, such as client demographics and dispensing location.

RESULTS

In Family PACT, most women get 3 OCP cycles per visit. Nearly two thirds (63%) of women who received pills in January 2003 got three cycles, 16% got one cycle and 7% got 13 cycles. Even among public/nonprofit clinics where providers can dispense more than 100 days supply, only 17% of OCP clients received the full allowable 13 cycles in January 2003.

Younger women are somewhat more likely to get 13 cycles than older women, with 8% of teenagers, 7% of women in their twenties, 4% of women in their thirties, and 3% of women in their forties getting 13 cycles ($P<.001$). African-American women and Hispanic women receive different OCP quantities than white, non-Hispanic women. African-American and Hispanic women are more likely to get three cycles (70% and 62% compared with 52% among white women) and less likely to get 13 cycles than white, non-Hispanic women (4%, 8%, and 12%, respectively) ($P<.001$). New Family PACT clients and new OCP users obtain slightly more cycles than established clients and users ($P<.001$; Table 1).

Women who received 13 cycles in their January 2003 visits received an average of 14.5 cycles over the course of the year compared with 9.0 cycles per year among women who received three cycles in the initial visit and 7.5 cycles per year among women who received one cycle at the initial visit ($P<.05$). The average of 14.4 cycles includes women who received 13 cycles in January and another 13 in December for use in 2004, women who switched to another pill formulation, and women who received only 13 cycles. Women who initially received 13 cycles were more likely to still be receiving pills in 2004 than women who received one or three cycles in January 2003 (49% versus 46% and 42%, respectively, ($P<.001$). Fifteen months after the initial pill dispensing encounter, 43% of women who received 13 cycles had received enough pill cycles in sufficient time to have continuously used OCPs for a year compared with 22% of women who received three cycles and 20% of women who received one cycle in January 2003

Table 1. Characteristics of Women Who Receive 1, 3, and 13 Cycles at a Family PACT Visit

	Quantity of Cycles Dispensed (%)						
	1	3	13	Other	Total	n	*p*
Total	16	63	7	14	100	82,319	
Pharmacy dispensed	16	80	0	4	100	49,867	<.001
Clinician dispensed	16	38	17	29	100	32,452	
Age (y)							
Less than 20	16	58	8	18	100	15,990	<.001
20–29	16	62	7	14	100	42,803	Reference
30–39	15	69	4	12	100	19,103	<.001
40 and older	16	68	3	13	100	4,423	<.001
Race/ethnicity							
Hispanic	15	70	4	11	100	49,657	<.001
White, non-Hispanic	16	52	12	20	100	22,075	Reference
Asian/Pacific Islander	16	55	10	19	100	5,319	.079
Black/African American	17	62	8	13	100	2,780	<.001
Other race/ethnicity	15	56	10	19	100	2,488	.301
New Family PACT client	14	62	12	12	100	9,488	<.001
Established Family PACT client	16	64	6	14	100	72,831	
Established OCP user	16	64	5	15	100	57,389	<.001
New OCP user	17	64	8	11	100	15,442	

PACT, Planning, Access, Care, and Treatment Program; OCP, oral contraceptive pill.

($P<.001$). Women who received fewer than 13 cycles were significantly more likely to experience gaps in coverage (19% of women who received three cycles and 16% of women who received one cycle compared with 4% of women who received 13 cycles) and less likely to have any coverage at all in April 2005 (59%, 64% and 53%, respectively, $P<.001$). Figure 1 shows 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 January 2003 dispensing visits.

Some differences in continuation may result from women leaving the Family PACT Program, rather than their failure to continue OCPs. Among women with some Family PACT service use in 2004, similar patterns of OCP continuation are evident. Women who received 13 cycles in January 2003 had a greater number of months of contraceptive protection and were less likely to experience gaps in coverage than women who received fewer cycles (Table 2).

On average, women in Family PACT wasted 3% of the pill cycles that they received in 2003. Women wasted 0.18 of a cycle due to pill oversupply or switching and 0.11 by switching to another method of contraception, for a total of 0.28 of a cycle or just over a week's worth of pills (Table 3).

Women who received 13 cycles were somewhat more likely to waste pills than women who received fewer cycles. We find that women who were dispensed 13 cycles wasted almost one cycle (6.5%) of the 14.5 they were dispensed over the course of the year. Women who were dispensed three cycles at their January encounter wasted 2% of their cycles, and women who were dispensed one cycle wasted 2.4% over the course of the year.

Women who we predicted would be less consistent users, including teenagers, new Family PACT clients, and established clients who had not used pills in the previous year, had higher levels of wastage: 4.2% of all cycles dispensed to teenagers and 8.1% of cycles dispensed to teenagers who initially got 13 cycles were estimated to have been wasted; 3.3% of the cycles dispensed to new Family PACT clients and 6.6% among those who initially got 13 cycles were estimated to have been wasted. New pill users wasted an estimated 2.9% of their cycles, 7.9% among those who received 13 cycles in January 2003.

Women who received 13 cycles of pills in their first dispensing encounter of 2003 had fewer total visits over the course of the year than women who received fewer cycles of pills at their first 2003 visit. Women dispensed three cycles had one more clinician visit and nearly three more pharmacy visits over the course of the year than women dispensed 13 cycles in January 2003 ($P<.05$). See Table 4 for data on Family PACT service use.

Women dispensed 13 cycles were more likely to have a Pap test and a *Chlamydia* test than women dispensed fewer cycles, despite having one fewer office visits. Three quarters (74%) of women who received 13 cycles had a Pap test during the year compared with 57% of women who received one or three cycles ($P<.001$). Among women aged 25 years and younger, 69% who received 13 cycles and 56% who received one or three cycles had a *Chlamydia* test over the course of the year ($P<.001$) as recommended by the guidelines of the Centers for Disease Control and Prevention.[10]

Women who received fewer than 13 cycles were more likely to have a pregnancy test and received

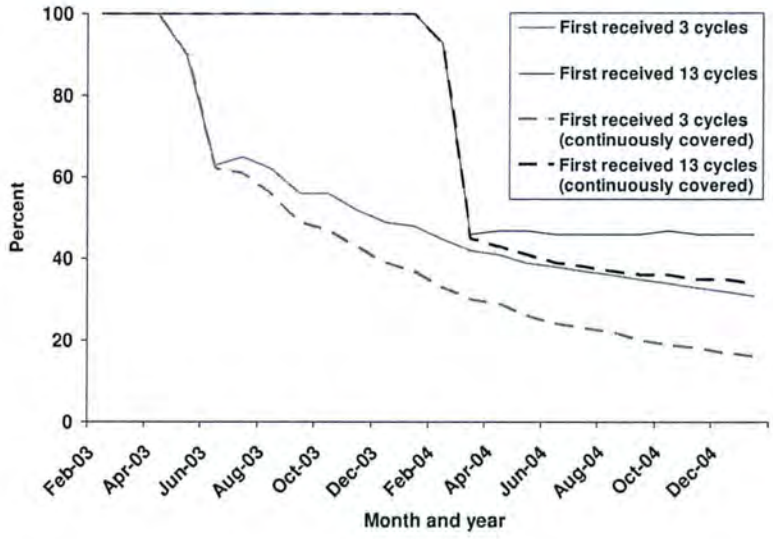

Fig. 1. The percentage of women who had any oral contraceptive pills (OCPs) on hand in a given month by the initial number of cycles dispensed in January 2003 and the percentage of women who had sufficient OCP supplies to be continuously covered through the given month by the initial number of cycles dispensed in January 2003.

Foster. Number of Oral Contraceptive Pill Packages. Obstet Gynecol 2006.

Table 2. Indicators of Oral Contraceptive Continuation

(n=82,319)	Quantity of Cycles Dispensed					
	1	3	13	Other	Total	*P*
All women receiving pills in January 2003						
Months of contraceptive protection dispensed in 2003	7.5	9.0	14.5	11.3	9.4	<.001*
Percentage with any pill dispensing 2004 (%)	42	46	49	44	45	<.001
OCP supplies on hand on April 1, 2004 (%)						
No	64	59	53	56	59	<.001
Yes, with gaps in coverage	16	19	4	10	16	
Yes, continuous supply to April 1, 2004	20	22	43	33	25	
Total	100	100	100	100	100	
Women receiving pills in January 2003 who had a visit in 2004						
Months of contraceptive protection dispensed in 2003	9.3	10.6	14.6	12.5	10.9	<.001*
Percentage with any pill dispensing 2004 (%)	76	77	83	75	77	<.001
OCP supplies on hand on April 1, 2004 (%)						
No	40	36	30	36	36	<.001
Yes, with gaps in coverage	27	30	5	16	25	
Yes, continuous supply to April 1, 2004	33	35	65	48	38	
Total	100	100	100	100	100	

OCP, oral contraceptive pill.
* Differences tested using analysis of variance with reference group three cycles dispensed.

Table 3. Estimates of the Number of Cycles Wasted by Initial Dispensing Quantity

	1 Cycle		3 Cycles		13 Cycles		Other Quantity		Total
		P		*P*		*P*		*P*	
Total (n=82,319)									
Pill oversupply wastage	0.12	.019	0.1	Reference	0.65	<.001	0.38	<.001	0.18
Method switching wastage	0.06	.004	0.08	Reference	0.3	<.001	0.17	<.001	0.11
Total	0.18	.811	0.18	Reference	0.95	<.001	0.55	<.001	0.28
Total cycles wasted (%)	2.40	.007	2.00	Reference	6.50	<.001	4.80	<.001	3.00
Women under age 20 (n=15,990)									
Pill oversupply wastage	0.17	.328	0.14	Reference	0.75	<.001	0.43	<.001	0.25
Method switching wastage	0.08	.322	0.1	Reference	0.45	<.001	0.21	<.001	0.15
Total	0.25	.840	0.24	Reference	1.19	<.001	0.64	<.001	0.39
Total cycles wasted (%)	3.80	.011	2.90	Reference	8.10	<.001	5.40	<.001	4.20
New Family PACT clients (n=9,488)									
Pill oversupply wastage	0.04	.081	0.09	Reference	0.67	<.001	0.29	<.001	0.18
Method switching wastage	0.05	.330	0.08	Reference	0.3	<.001	0.13	.045	0.11
Total	0.09	.052	0.17	Reference	0.97	<.001	0.42	<.001	0.29
Total cycles wasted (%)	2.00	.579	2.10	Reference	6.60	<.001	4.00	.001	3.30
Established Family PACT clients with no pill use in previous year (n=15,442)									
Pill oversupply wastage	0.07	.254	0.05	Reference	0.57	<.001	0.23	<.001	0.11
Method switching wastage	0.07	.186	0.05	Reference	0.57	<.001	0.23	<.001	0.11
Total	0.14	.896	0.1	Reference	1.15	<.001	0.46	<.001	0.23
Total cycles wasted (%)	2.60	.281	1.30	Reference	7.90	<.001	4.70	<.001	2.90

PACT, Planning, Access, Care, and Treatment Program.
Differences tested using analysis of variance with reference group 3 cycles dispensed.

more pregnancy tests than women who received 13 cycles: 46% of women who were dispensed three cycles in January 2003 and 45% of women who were dispensed one cycle had at least one pregnancy test over the course of the year compared with 25% of women who received 13 cycles ($P<.001$). Among women who received at least one pregnancy test, women who received three cycles had 2.2 tests compared with 1.4 among women who received 13 cycles in January 2003 ($P<.05$).

Table 4. Use of Family PACT Services in 2003, by Initial Dispensing Quantity

	1 Cycle		3 Cycles		13 Cycles		Other Quantity		Total	
		P		*P*		*P*		*P*		*P*
Percentage receiving a Pap test	57		57		74		60		58	<.001
Percentage under age 26 receiving a *Chlamydia* test (n=44,717)	56		56		69		57		57	<.001
Percentage receiving a pregnancy test	45		46		25		32		42	<.001
Average number of pregnancy tests*†	2.2	.196	2.2	Reference	1.4	<.001	1.7	<.001	2.1	
Average number of total encounters†	6.4	.473	5.9	Reference	2.2	<.001	3.8	<.001	5.4	
Average number of clinician encounters†	3	<.001	3.1	Reference	2.1	<.001	2.9	<.001	3	
Average number of pharmacy encounters†	3.4	<.001	2.8	Reference	0.1	<.001	0.8	<.001	2.4	
Average program reimbursement ($)†	422	<.001	478	Reference	379	<.001	379	<.001	449	

PACT, Family Planning, Access, Care, and Treatment Program.
N=82,319 women who received pills through Family PACT in January 2003.
* Among those with at least one pregnancy test.
† Differences tested using analysis of variance with reference group three cycles dispensed.

Family PACT spent an average of $449 in reimbursements to providers, pharmacies, and laboratories for each woman who received pills in January 2003. Over the course of the year, Family PACT paid $99 more for women who received three cycles and $44 more for women who received only one cycle than it did for women who received 13 cycles at their first visit of 2003 ($P<.05$).

Reimbursement per month of OCP protection indicates that dispensing more cycles of OCPs is cost-effective. Reimbursement per cycle of OCPs dispensed over the course of the year averaged $54 for women receiving three cycles but only $26 for women receiving 13 cycles.

We used a multivariable logistic model to identify the effect of the number of cycles dispensed on continuation while controlling for demographic factors and whether the client was new to Family PACT or new to OCPs (Table 5). We ran two models: one predicting whether clients had OCP protection through Family PACT on April 1, 2004, 15 months after the January 2003 dispensing, and the other predicting whether they had continuous protection up to that date. Our analysis of age shows the expected pattern of lower continuation among younger women than for older (30 years or older) women. With women in their twenties as the reference group, teenagers were significantly less likely and older women more likely to have OCP protection in April 2004. Hispanic and African-American women were less likely to be protected in April 2004 than were white, non-Hispanic women. Women who received their pills through a pharmacy were slightly less likely to still be protected 15 months later (OR 0.93, 95% confidence interval [CI] 0.89–0.96). New Family PACT clients and new OCP users among established clients were each half as likely to still be covered as established clients who were existing OCP users ($P<.05$). Women who received 13 cycles were 28% more likely to be protected 15 months later than women who received three cycles in January 2003 (OR 1.28, 95% CI 1.20–1.37).

The effect of dispensing 13 cycles is greater in the second model, which predicts continuous protection to April 2004. We find similar age and racial/ethnic patterns as in the first model. Women receiving pills from a pharmacy in January 2003 were significantly less likely to have an adequate supply (OR 0.65, 95% CI 0.63–0.68). In this model we found that women receiving 13 cycles were just over twice as likely to have supplies on hand for continuous use for the next 15 months as women who received only three cycles in their January 2003 encounter (OR 2.03, 95% CI 1.9–2.16). The magnitude of this dispensing effect is greater than the effects for race/ethnicity, age, or pharmacy dispensing and is similar in magnitude but opposite in direction as the effect of being a new client or new OCP user (OR 0.50, 95% CI 0.48–0.53; OR 0.45, 95% CI 0.43–0.48, respectively).

DISCUSSION

Clinicians who identify a patient as being committed to use of OCPs can dispense a full year's supply and expect higher contraceptive continuation, fewer visits, and lower overall costs. Our findings document a positive relationship between number of OCP cycles provided and OCP continuation. We also find that women who receive a greater number of OCP cycles are less likely to experience a gap in OCP coverage. The higher use of pregnancy tests among women who

Table 5. Multivariable Logistic Regression Models of Oral Contraceptive Pill Continuation (n=82,319)

	Odds of Having OCPs on Hand on April 1, 2004		Odds of Having Had OCPs on Hand Continuously up to April 1, 2004	
	OR	95% CI	OR	95% CI
Dispensing quantity of January 2003				
First got 1 cycle	0.78	0.75–0.81	0.78	0.74–0.82
First got 3 cycles	1	Reference	1	Reference
First got 13 cycles	1.28	1.2–1.37	2.03	1.90–2.16
Other quantity	0.99	0.95–1.04	1.27	1.20–1.33
Age (y)				
Less than 20	0.89	0.85–0.92	0.85	0.81–0.89
20–29	1	Reference	1	Reference
30–39	1.15	1.11–1.19	1.1	1.05–1.15
40 and older	1.24	1.16–1.32	1.15	1.07–1.24
Race/ethnicity				
White, non-Hispanic	1	Reference	1	Reference
Hispanic	0.82	0.79–0.85	0.72	0.69–0.74
Black	0.65	0.60–0.71	0.62	0.56–0.69
Asian	1.05	0.99–1.12	1.04	0.97–1.11
Other	0.82	0.76–0.90	0.8	0.73–0.89
Dispensed by				
Pharmacy	0.93	0.89–0.96	0.65	0.63–0.68
Clinic	1	Reference	1	Reference
Client status				
New client	0.46	0.44–0.49	0.5	0.48–0.53
Established client/new OCP user	0.44	0.42–0.46	0.45	0.43–0.48
Established client/established OCP user	1	Reference	1	Reference

OCP, oral contraceptive pill; OR, odds ratio; CI, confidence interval.

received fewer cycles is consistent with a greater perceived risk of pregnancy due to gaps in coverage.

One explanation for the higher continuation, lower use of pregnancy tests, and improved reproductive health screening among women who received 13 cycles compared with women receiving fewer cycles is greater convenience. When offered the option of only one visit per year, women accept the basic reproductive health screening rather than putting it off until the next visit. Return visits to pharmacies or clinics to refill prescriptions may be the burden on women's time and provider resources that results in discontinuation and gaps in OCP use. The additional visits may also serve as occasions to reconsider OCP use. Women with mild adverse effects characteristic of adoption of OCPs may continue through the first few months of use when they have a year's supply but may stop using OCPs if they must return to a clinic to refill a prescription.

Health care plans that set limits on drug dispensing and clinicians in managed care settings who limit OCP prescriptions to three cycles may find lower direct costs for visits and pregnancy tests and perhaps lower indirect costs for unintended pregnancy management if they raise their dispensing limits to allow a 1-year supply. The tendency to discontinue use when required to make multiple visits to refill prescriptions may be even greater in other health care settings. Because Family PACT clients receive services at no personal cost and do not pay drug co-pays, the disinclination to return to the pharmacy or clinic for refills within Family PACT is likely due to a lack of time or inconvenience. For women who must also pay per visit, return visits may represent a financial burden as well.

Our retrospective analysis did not randomize women to receive 13 or other numbers of OCP cycles. Women who knew that they only wanted to use OCPs for a short time may have requested fewer OCP packages. Likewise, clinicians may have been more likely to provide 13 cycles to women who they believed would be likely to continue OCP use. In the absence of random assignment to one, three, or 13 cycles, we can say that offering 13 cycles to women who may be compliant reduces program costs. Allowing 13 cycles to be dispensed at one visit gives the physician and client the ability to determine how many cycles are appropriate rather than setting a program policy that may cause expense, inconvenience, and gaps in contraceptive coverage.

Our study relies on program claims data, which probably underestimates pill wastage, rather than on contraceptive use data. We do not know whether OCP cycles dispensed were actually used and whether a woman who stops getting pills through Family PACT does so because she is discontinuing use of the pill, became pregnant, or ceased to be eligible for Family PACT. Our findings are, therefore, suggestive but not conclusive of the relationship between dispensing quantity and method continuation. Given the potentially large influence of dispensing quantities on method continuation, this study is a first step toward identifying changes in physician prescribing behavior and health care administration policy that can improve continuation of oral contraceptives and reduce the incidence of unintended pregnancy among OCPs users.

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State Facts About Unintended Pregnancy: Alaska

National Background and Context

Unintended pregnancy can have significant, negative consequences for individual women, their families and society as a whole. An extensive body of research links births resulting from unintended or closely spaced pregnancies to adverse maternal and child health outcomes and myriad social and economic challenges.(1,2) In 2008, the last year for which national-level data are available, 51% of all pregnancies in the United States were unintended including eight in 10 teen pregnancies; the U.S. unintended pregnancy rate was 54 per 1,000 women aged 15–44, a level significantly higher than that in many other developed countries.(3,4) If current trends continue, more than half of all women in the United States will experience an unintended pregnancy by the time they reach age 45.(3,5) And economically disadvantaged women are disproportionately affected by unintended pregnancy and its consequences: In 2008, the unintended pregnancy rate among women with incomes lower than the federal poverty level, at 137 per 1,000, was more than five times as high as the rate among women with incomes greater than 200% of poverty (26 per 1,000).

In any given year, the two-thirds of women in the United States at risk of unintended pregnancy who use contraceptives consistently throughout the year account for only 5% of all unintended pregnancies; fully 95% of unintended pregnancies are attributable to the one-third of women who do not use contraceptives or who use them inconsistently.(5) Public programs—notably Medicaid and the Title X national family planning program—are central to women's access to affordable contraceptive services and supplies and their ability to use contraceptives effectively. In 2013, 8.3 million women received publicly funded family planning services; these services helped women avoid 2 million unintended pregnancies, which would likely have resulted in approximately 1 million unplanned births and nearly 700,000 abortions(the remainder would have resulted in miscarriages).(6) Absent publicly funded family planning services, the numbers of unintended pregnancies and abortions in the United States would be 60% higher than they currently are.(7)

Unintended pregnancies are also costly to the federal and state governments, resulting in $21.0 billion in public expenditures in 2010.(7) Yet, these costs could have been considerably higher: By helping women avoid unintended pregnancies, publicly funded family planning services saved taxpayers $13.6 billion in 2010, or $7.09 for every $1 spent.(8)

Incidence and Outcomes of Unintended Pregnancy in Alaska

- In 2010, 48% of all pregnancies (8,000) in Alaska were unintended.(9)
- Alaska's unintended pregnancy rate in 2010 was 54 per 1,000 women aged 15–44. Nationally, rates among the states ranged from a low of 32 per 1,000 in New Hampshire to a high of 62 per 1,000 in Delaware.(9)
- The teen pregnancy rate in Alaska was 64 per 1,000 women aged 15-19 in 2010. The national teen pregnancy rate was 57 per 1,000, ranging from 28 per 1,000 in New Hampshire to 80 per 1,000 in New Mexico.(10)
- In 2010, 60% of unintended pregnancies in Alaska resulted in births and 26% in abortions; the remainder resulted in miscarriages.(9)

Public Cost of Unintended Pregnancy in Alaska

- In 2010, 3,000 or 64.3% of unplanned births in Alaska were publicly funded, compared with 68% nationally.(7)
- In Alaska in 2010, the federal and state governments spent $113.7 million on unintended pregnancies; of this, $70.8 million (52%) was paid by the federal government and $42.9 million was paid by the state.(7)
- The total public costs for unintended pregnancies in 2010 was $790 per woman aged 15–44 in Alaska, compared with $201 per woman nationally.(7)

Preventing Unintended Pregnancy in Alaska

- In 2013, 250 Alaska women aged 13–44 were in need of publicly funded family planning services.(6)
- Publicly supported family planning centers in Alaska served 22,140 female contraceptive clients in 2013. Those centers met 254% of Alaska women's need for contraceptive services and supplies, compared with 29% met by family planning centers nationally.(6)
- In 2010, the reported public expenditures for family planning client services in Alaska totaled $5.5 million; this includes $2.1 million through Medicaid and $1.9 million through Title X.

  Most states also use some of their own money (in addition to funds required to match federal grants) for family planning services; in 2010, Alaska contributed $1.4 million. (11)
- Publicly funded family planning centers in Alaska helped avert 5,400% unintended pregnancies in 2013, which would likely have resulted in 2,700 unplanned births and 1,800 abortions.(6)
- By averting unintended pregnancies and other negative reproductive health outcomes, publicly funded family planning services provided by safety-net health centers in Alaska helped save the federal and state governments $65.4 million in 2010.(8)

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UCSF

Increased Contraceptive Supply Linked to Fewer Unintended Pregnancies

February 22, 2011

Rates of unintended pregnancies and abortions decrease significantly when women receive a one-year supply of oral contraceptives, instead of being prescribed one- or three-month supplies, a UCSF study shows.

Researchers observed a 30 percent reduction in the odds of pregnancy and a 46 percent decrease in the odds of an abortion in women given a one-year supply of birth control pills at a clinic versus women who received the standard prescriptions for one – or three-month supplies.

The researchers speculate that a larger supply of oral contraceptive pills may allow more consistent use, since women need to make fewer visits to a clinic or pharmacy for their next supply.

"Women need to have contraceptives on hand so that their use is as automatic as using safety devices in cars, " said Diana Greene Foster, PhD, lead author and associate professor in the UCSF Department of Obstetrics, Gynecology and Reproductive Sciences. "Providing one cycle of oral contraceptives at a time is similar to asking people to visit a clinic or pharmacy to renew their seatbelts each month."

Foster also is director of research for Advancing New Standards in Reproductive Health, part of the UCSF Bixby Center for Global Reproductive Health. Her study's findings appear online (http://journals.lww.com/greenjournal/Abstract/2011/03000/Number_of_Oral_Contraceptive_Pill_Packages.8.aspx) in the journal *Obstetrics and Gynecology*.

The researchers linked 84,401 women who received oral contraceptives in January 2006 through Family PACT (Planning, Access, Care, Treatment), a California family planning program, to Medi-Cal data showing pregnancies and births in 2006. Through Family PACT, some family planning clinics are able to dispense a one-year supply of pills on-site.

Oral contraceptive pills are the most commonly used method of reversible contraception in the United States, the team states. While highly effective when used correctly (three pregnancies per 1,000 women in the first year of use), approximately half of women regularly miss one or more pills per cycle, a practice associated with a much higher pregnancy rate (80 pregnancies per 1,000 women in the first year of use), according to the team.

The findings of this study have implications for women using oral contraceptives across the country. Most oral contraceptive users in the United States get fewer than four packs at a time; nearly half need to return every month for resupply, according to a 2010 study published in *Contraception*.

Making oral contraceptive pills more accessible may reduce the incidence of unintended pregnancy and

abortion, while saving taxpayers' dollars, the researchers state. If the 65,000 women in the analysis who received either one or three packs of pills at a time had experienced the same pregnancy and abortion rates as women who received a one-year supply, almost 1,300 publicly funded pregnancies and 300 abortions would have been averted, according to the team.

"The evidence indicates that health plans and public health programs may avoid paying for costly unintended pregnancies by increasing dispensing limits on oral contraceptives," said Foster. "Improving access to contraceptive methods reduces the need for abortion and helps women to plan their pregnancies."

Co-authors are Denis Hulett, Mary Bradsberry, Phillip Darney, MD, MSc, and Michael Policar, MD, MPH, all with the Bixby Center for Global Reproductive Health, UCSF Department of Obstetrics, Gynecology, and Reproductive Sciences, and San Francisco General Hospital.

UCSF is a leading university dedicated to promoting health worldwide through advanced biomedical research, graduate-level education in the life sciences and health professions, and excellence in patient care.

Related Links:

Number of Oral Contraceptive Pill Packages Dispensed and Subsequent Unintended Pregnancies (http://journals.lww.com/greenjournal/Abstract/2011/03000/Number_of_Oral_Contraceptive_Pill_Packages.8.aspx)

February 2015

Public Costs from Unintended Pregnancies and the Role of Public Insurance Programs in Paying for Pregnancy-Related Care

National and State Estimates for 2010

Adam Sonfield and Kathryn Kost

HIGHLIGHTS

- Nationally, 51% of all U.S. births in 2010 were paid for by public insurance through Medicaid, the Children's Health Insurance Program and the Indian Health Service.
- Public insurance programs paid for 68% of the 1.5 million unplanned births that year, compared with 38% of planned births.
- Two million births were publicly funded in 2010; of those, about half—one million—were unplanned.
- A publicly funded birth in 2010 cost an average of $12,770 in prenatal care, labor and delivery, postpartum care and 12 months of infant care; when 60 months of care are included, the cost per birth increases to $20,716.
- Government expenditures on the births, abortions and miscarriages resulting from unintended pregnancies nationwide totaled $21.0 billion in 2010; that amounts to 51% of the $40.8 billion spent for all publicly funded pregnancies that year.
- To put these figures in perspective, in 2010, the federal and state governments together spent an average of $336 on unintended pregnancies for every woman aged 15–44 in the country.
- In the absence of the current U.S. publicly funded family planning effort, the public costs of unintended pregnancies in 2010 might have been 75% higher.
- The total gross potential savings from averting all unintended pregnancies in 2010 would have been $15.5 billion. This is less than the total public cost of all unintended pregnancies, because even if all women had been able to time their pregnancies as they wanted, some of the resulting births still would have been publicly funded. These potential savings do not account for the public investment in family planning services and other interventions that might be required to achieve them.

February 2015

Public Costs from Unintended Pregnancies and the Role of Public Insurance Programs in Paying for Pregnancy-Related Care: National and State Estimates for 2010

Adam Sonfield and Kathryn Kost

CONTENTS

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www.guttmacher.org

Introduction

Unintended pregnancy has long been acknowledged as an important health, social and economic problem in the United States—one that creates hardships for women and families and threatens the health and well-being of women and their infants.[1–4] Those consequences, in turn, have broad societal implications, including for the national economy and the extent of government expenditures.

Rates of unintended pregnancy are far higher among women living at or near the poverty level than among higher-income women—a disparity that grew substantially between 1994 and 2008.[5,6] Most of these low-income women are eligible for public coverage of pregnancy-related care through Medicaid, the Children's Health Insurance Program (CHIP) or the Indian Health Service (IHS). Thus, these programs play a central role in preserving maternal and child health, and a substantial share of the cost burden of unintended pregnancy is likely to fall on the public.

This report provides national and state-level estimates for 2010 for public expenditures on unintended pregnancy, as well as for the contribution of public insurance programs in providing essential care to pregnant women and children. It closely follows the methodology used for the Guttmacher Institute's 2006 and 2008 estimates.[7,8] However, because of several key changes to the methodology, public expenditure estimates for 2010 are not comparable with those for earlier years. Rates and numbers of unintended pregnancies in each state in 2010 are presented elsewhere.[9]

WHAT IS UNINTENDED PREGNANCY?

An unintended pregnancy is one that was either mistimed or unwanted. If a woman did not want to become pregnant at the time the pregnancy occurred, but did want to become pregnant at some point in the future, the pregnancy is considered mistimed; if she did not want to become pregnant then or at anytime in the future, the pregnancy is considered unwanted.

An intended pregnancy is one that was desired at the time it occurred or sooner.

When calculating unintended pregnancy rates, women who were indifferent about becoming pregnant are counted with women who had intended pregnancies, so that the unintended pregnancy rate only includes pregnancies that are unambiguously unintended.

In this report, births resulting from unintended pregnancies are referred to as unplanned and those resulting from intended pregnancies are referred to as planned.

Methodology

The analysis in this report is based on the methodology used for the Guttmacher Institute's first state-level estimates of the publicly funded costs of births from unintended pregnancy for 2006 and its follow-up for 2008.[7,8] More details on the methodology can be found in those reports.

This report focuses on the cost of publicly funded births: those births with deliveries paid for by Medicaid, CHIP or IHS, including Medicaid and CHIP managed care plans, and Medicaid and CHIP programs operating under Section 1115 waivers (which permit states to receive federal funding for programs that do not meet federal Medicaid and CHIP requirements). For these 2010 estimates, we have included costs of prenatal care, labor and delivery, postpartum care and 60 months of care for the child. Also, we factored in the relatively small public costs of abortions and miscarriages resulting from unintended pregnancies.

To estimate the costs of publicly funded births, we obtained three underlying state-level estimates for each state: the number of unplanned births in a given year, the proportion of unplanned births with deliveries paid for by public programs and the cost to those programs for each birth. The same three underlying estimates were also obtained for planned births and births overall.

Number of Births

A related Guttmacher Institute analysis estimated 2010 unintended pregnancy rates for all 50 states and the District of Columbia.[9] That analysis utilized birth counts from the U.S. vital statistics system; data on the intendedness of births from the Pregnancy Risk Assessment Monitoring System (PRAMS), a population-based surveillance project of the Centers for Disease Control and Prevention (CDC); data from similar state-conducted surveys; and results from multivariate linear regression analyses for several states for which data were unavailable. We obtained the estimated number of unplanned births for each state from unpublished tabulations of the data used in that analysis. Descriptions of and additional notes about those data sources can be found in that report.[9]

Births Paid for by Public Programs: Survey Data

PRAMS was the primary source for the proportion of births—all births, unplanned births and planned births—with deliveries paid for by Medicaid, CHIP and IHS. The core PRAMS questionnaire for 2010 asked how the respondent's delivery was paid for. Possible responses included Medicaid, personal income, private health insurance and up to two additional categories defined by individual states; respondents could also answer "other" and write in additional information.

PRAMS or similar data were available for 42 states. For 38 states, we obtained weighted estimates of the proportion of births paid by public funds from 2010 PRAMS data: Alabama, Alaska, Arkansas, Colorado, Connecticut, Delaware, Florida, Georgia, Hawaii, Illinois, Louisiana, Maine, Maryland, Massachusetts, Michigan, Minnesota, Mississippi, Missouri, Nebraska, New Jersey, New Mexico, New York, North Carolina, Ohio, Oklahoma, Oregon, Pennsylvania, Rhode Island, South Carolina, Tennessee, Texas, Utah, Vermont, Virginia, Washington, West Virginia, Wisconsin and Wyoming.

For these 38 states, we identified CHIP and IHS programs, Medicaid and CHIP managed care plans, and Medicaid and CHIP waiver programs. For some states, these payment options were included on the PRAMS questionnaire as a response option for the delivery payment question and listed either within the Medicaid payment category or as a separate category.

The IHS was included as a state-specific category in nine states in the 2010 PRAMS survey (Alaska, Minnesota, Mississippi, Nebraska, New Mexico, Oklahoma, Oregon, Washington and Wisconsin). In addition, the following state-specific programs were included in this analysis: Alabama (All Kids), Alaska (Alaska Native Health Service), Arkansas (ARKids First), Colorado (Child Health Plan Plus), Connecticut (State Administered General Assistance and Charter Oak), Florida (Medipass), Illinois (All Kids, Moms and Babies), Michigan (Medical Outpatient Maternity Services), Nebraska (Medicaid managed care), New Jersey (New Jersey FamilyCare), New Mexico (Salud!), New York (Prenatal Care Assistance Program), North Carolina (Baby Love, NC Health Choice,

Health Check, Carolina Access), Pennsylvania (adultBasic), Rhode Island (RIte Care), Tennessee (CoverKids, Cover Tennessee and TennCare), Vermont (Dr. Dynasaur), Virginia (FAMIS) and Wisconsin (BadgerCare or BadgerCare Plus).

In addition, the payment-for-delivery question included an "other" response category, allowing respondents to write in other forms of payment. Relevant write-in responses were included for 26 states with data we were able to analyze. Those included variations and misspellings of Medicaid, CHIP and IHS; alternate program names, including generic ones (e.g., "medical assistance" or "Title XIX") and state-specific ones (as confirmed on state Web sites); and the names of specific managed care plan issuers that specialize in Medicaid and other public insurance programs (as confirmed on state and issuer Web sites).

We also obtained tabulations from PRAMS-like surveys in four states: California (2011 Maternal and Infant Health Assessment, or MIHA), Idaho (2010 Pregnancy Risk Assessment Tracking System, or PRATS), Iowa (2010 Barriers to Prenatal Care survey) and Kentucky (2008 PRAMS pilot survey).

Births Paid for by Public Programs: Multivariate Regression

For the remaining nine jurisdictions, PRAMS or similar data were unavailable: Arizona, the District of Columbia, Indiana, Kansas, Montana, Nevada, New Hampshire, North Dakota and South Dakota. For these, we report, in Table 1, estimates from a study by Markus and colleagues (2013) on the proportion of all births paid for by Medicaid in 2010.[10]

That study, however, does not include estimates for unplanned births or planned births. Instead, we used a multivariate linear regression analysis to predict estimates of the proportions of unplanned and planned births paid for by public coverage (including Medicaid, CHIP or IHS).

In the model, each of the 42 states with data represented an observation. The dependent variable was the proportion of unplanned births for which the delivery was covered by public insurance. (A separate model was estimated for planned births.) Independent variables, measured at the state level, included measures of the demographic composition of women aged 15–44, overall birthrate, unplanned birthrate, proportion of all births paid for by Medicaid and income-eligibility threshold for pregnancy-related care under Medicaid and CHIP. The model's demographic measures included the percentage of women of reproductive age in the state who were in a particular age-group (15–19, 20–24 and 25–34), race or ethnicity category (non-Hispanic white, non-Hispanic black, Hispanic, and American Indian or Alaskan Native), poverty status category (proportion below the poverty line) and insurance category (Medicaid/CHIP and uninsured); the reference categories, which were excluded to prevent overspecification of the model, were 35 or older, non-Hispanic other, proportion at or above the poverty line and proportion with private insurance, respectively. This model was identical to the model used for the 2008 study.[8]

The R^2 of the final model indicated that 89% of the variation in the proportion of unplanned births that were publicly funded and 95% of the variation in the proportion of planned births that were publicly funded could be accounted for by the independent variables.

Standard errors for the nine predicted values of the proportion of unplanned births that were publicly funded ranged from 0.01 to 0.05, except for in the District of Columbia (0.10), which is somewhat unlikely to conform to a model in which all the other observations are states, as opposed to cities. Standard errors for the nine predicted values of the proportion of planned births that were publicly funded ranged from 0.01 to 0.04 (0.06 for the District of Columbia).

Cost per Publicly Funded Birth

State-level data on the average cost of a Medicaid-funded birth and 12 months of infant care in 2010 were drawn from an earlier Guttmacher Institute report.[11] Data on the cost of a CHIP- or IHS-funded birth were not available; for the current analysis, we assumed that it was the same as for a Medicaid-funded birth. Briefly, data on these Medicaid costs are not consistently collected for all states, but were available in applications or evaluations completed by 25 states that have sought a federal waiver to expand Medicaid eligibility specifically for family planning services (adjusted for inflation when necessary), and from another 10 states and the District of Columbia in response to a Guttmacher Institute survey.[12] For the remaining 15 states, we obtained estimates by averaging the available data and adjusting for differences among states in their Medicaid payment rates for physicians.

Additional data on the average cost of Medicaid-funded care for months 13–60 were drawn from a Guttmacher Institute analysis published in 2014, which expanded and updated our methodology for assessing the public savings related to U.S. publicly funded family planning services.[13] That analysis relied upon 2010 state-level data from the Medicaid Statistical Information System.

For the current analysis, we separated the average cost of a Medicaid-funded birth for each state into state and federal costs, on the basis of the state's FY 2010 federal medical assistance percentage (i.e., the proportion of medical costs under Medicaid for which states receive

reimbursement from the federal government).[14]

We multiplied the number of unplanned births in each state by the proportion of such births paid for by public programs to arrive at each state's number of publicly funded unplanned births. That figure was then multiplied by the average cost of a Medicaid-funded birth in the state to arrive at a total cost for the state. The same process was used for the cost of all publicly funded births in each state (including planned births, which we subsequently calculated by subtraction).

Public Costs for Miscarriages and Abortions

One change from the 2006 and 2008 iterations of this analysis is that, for 2010, we included estimates of the public costs of miscarriages and abortions to arrive at a more complete estimate of the total public costs of unintended pregnancies. Neither addition had a substantial effect on the nationwide total costs, with miscarriages accounting for 1.5% of total costs and abortions accounting for 0.3%.

We obtained unpublished numbers of total miscarriages and of miscarriages from unintended and intended pregnancies from a related Guttmacher Institute analysis of 2010 unintended pregnancy rates.[9] Following the methodology of the Guttmacher Institute's expanded assessment of the benefits and savings from publicly funded family planning services,[13] we assumed that the proportion of miscarriages that were publicly funded was equal to the proportion of births that were publically funded. That same report estimated that the average cost of a publicly funded miscarriage is 9.8% of the average cost of publicly funded maternity and infant care. We applied that estimate here to arrive at state-level cost estimates per miscarriage.

Public expenditures for abortions in 2010 were published in a prior Guttmacher Institute report.[12] Almost all of those costs are for the 17 states that use their own funds to pay for abortions for publicly insured women.

Potential Savings from Preventing Unintended Pregnancies

The Guttmacher Institute's expanded assessment of the benefits and savings from publicly funded family planning services also included an adjustment to account for the likelihood that some unintended pregnancies would not actually result in public savings if prevented.[13] That is because, in some cases, a woman who is able to prevent a mistimed pregnancy, but eventually has a wanted one, may only delay rather than avoid the costs to public insurance. The expanded assessment concluded that 73.3% of unplanned publicly funded births would be cost-saving to the government if prevented. The methodology for arriving at that adjustment factor is described in detail in the original report. (The adjustment factor is based on national data; state-level adjustments were not feasible with existing data.)

For this report, we estimated the total public costs for unintended pregnancies, alongside a second set of estimates for the potential gross savings from preventing those unintended pregnancies. To arrive at the second set of estimates, we applied the 73.3% adjustment factor to the costs of unplanned births. Note that these estimates do not account for the cost of the public investment (e.g., in family planning services) that might be required to achieve these potential savings.

National Totals

According to the National Survey of Family Growth (NSFG), there were an estimated 1.67 million unplanned births in the United States in 2008;[15] by comparison, the state-specific estimates from the 2008 iteration of this study summed to 1.81 million unplanned births that year.[8] To account for that difference, in the 2008 report, we presented both unadjusted U.S. totals (summed from the state-level data) and adjusted U.S. totals (for unplanned births, that was calculated as 92.5%—1.67 million divided by 1.81 million—of the unadjusted totals). Throughout that report, we referred exclusively to adjusted totals when discussing national estimates.

For 2010, we did not have a national estimate from the NSFG of unplanned births. (The most recent national estimate is from 2008; the next national estimate, which is expected to be published later this year, will be for 2011.) Therefore, we continued to use the 92.5% adjustment factor from the 2008 iteration of this study.

Limitations

Our estimates are subject to a number of limitations, many of which are inherent to the array of sources from which data were drawn and have been discussed previously.[16,17] Several others are important to highlight here.

Our method of attributing costs to state and federal governments has shortcomings. There are two ways it could understate federal contributions: We did not account for enhanced federal reimbursement to states for pregnant women enrolled in CHIP, rather than Medicaid; nor did we assign costs paid for by the IHS entirely to federal expenditures (IHS does not have a state matching component). Our method could overstate federal contributions, as well. We did not reduce federal expenditures to account for the typically lower reimbursement rate to states for women covered by Medicaid only for labor and

delivery on an emergency basis (e.g., for undocumented immigrants). The number of births affected by all three of these limitations, however, was relatively small, compared with the group for whom states receive reimbursement at their standard federal medical assistance percentage.

The public expenditures for unintended pregnancies, intended pregnancies and all pregnancies estimated in this paper for 2010 are not comparable with the public expenditures estimated in earlier Guttmacher papers for 2006 and 2008. As noted above, we included costs of prenatal care, labor and delivery, postpartum care and 60 months of care for the child, and we also factored in the relatively small public costs of abortions and miscarriages resulting from unintended pregnancies. The 2006 and 2008 estimates included only 12 months of care for the child, and did not include the costs of abortions and miscarriages.

Findings

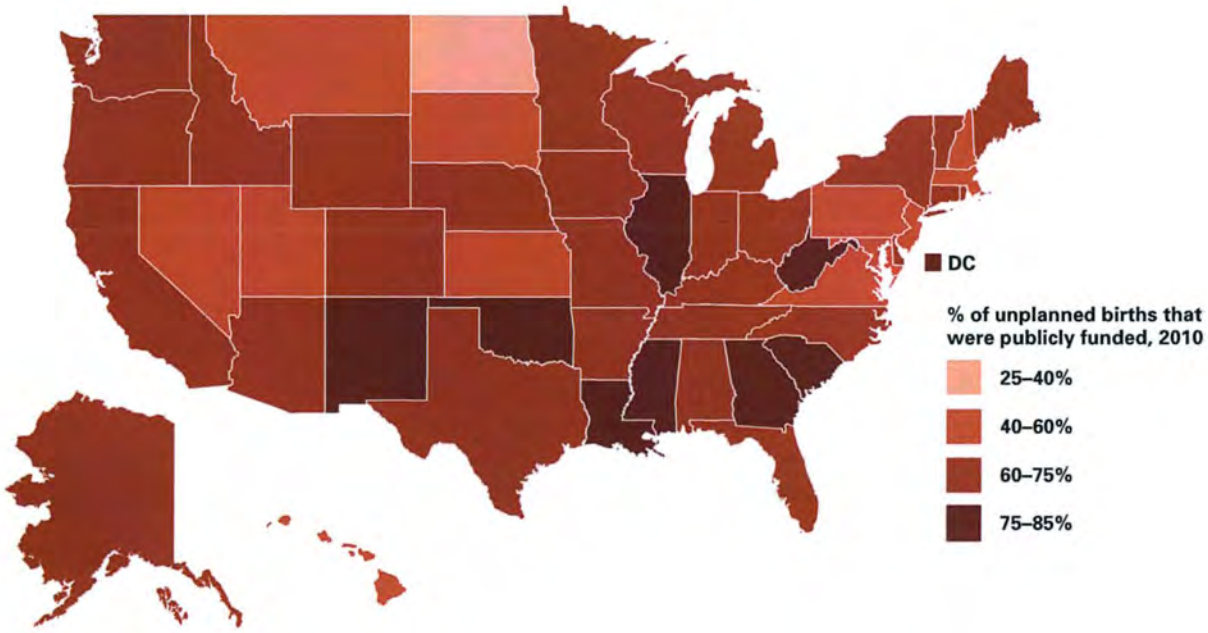
Publicly Funded Births

- Nationally, 68% of the 1.5 million unplanned births in 2010 were paid for by public insurance programs, compared with 51% of all births and 38% of planned births (Table 1).
- Two million births were publicly funded in 2010; of those, about half—1.0 million—were unplanned. (By comparison, 1.5 million out of 4.0 million total births nationwide were unplanned, 38%.)
- In eight states and the District of Columbia, at least 75% of unplanned births were paid for by public programs (Map 1). Mississippi was the state with the highest proportion (82%); the proportion in the District of Columbia was 85%. All but two of those nine jurisdictions are in the South (as categorized by the U.S. Census Bureau), a region with high levels of poverty.
- In six states, the proportion of unplanned births paid for by public programs was below 50%; North Dakota had the lowest proportion (37%). The six states with the lowest proportions follow no clear geographic pattern
- State-level patterns for public coverage of all births (Map 2) and planned births were very similar to those for unplanned births. Mississippi and the District of Columbia had the highest proportions, and other southern states followed closely. New Hampshire and North Dakota had the lowest proportions paid for by public insurance programs.

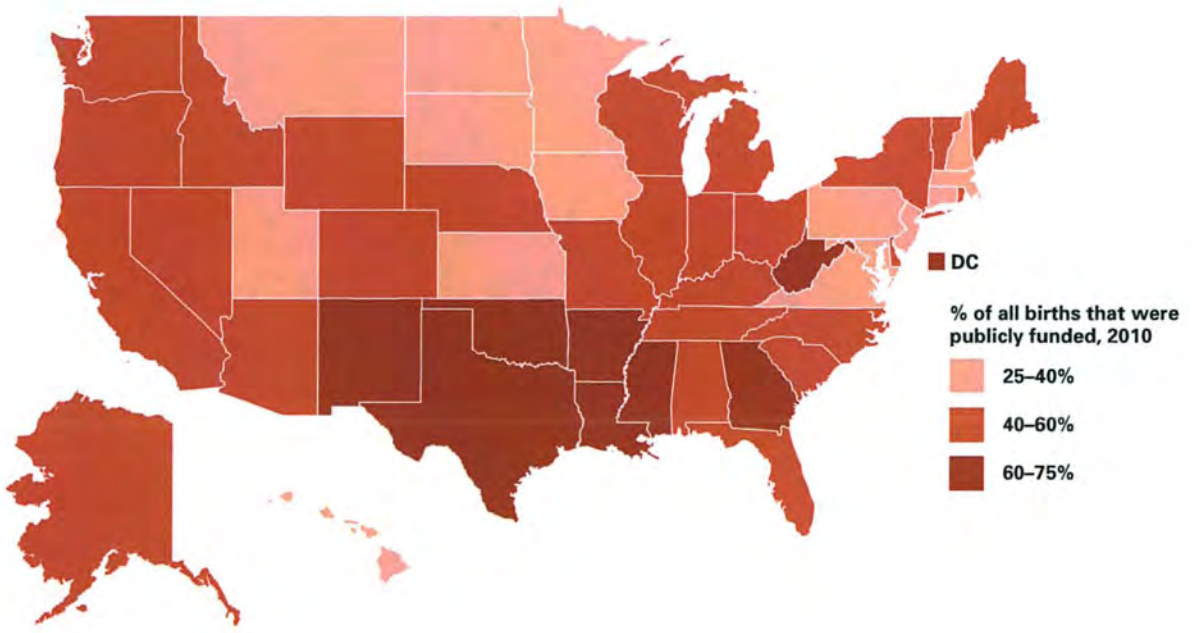
Public-Sector Costs

- On average, a publicly funded birth cost $12,770 in prenatal care, labor and delivery, postpartum care and the first 12 months of infant care; care for months 13–60 cost, on average, another $7,947, for a total cost per birth of $20,716 (Table 2).
- Government expenditures on unintended pregnancies nationwide totaled $21.0 billion in 2010; of that, $14.6 billion were federal expenditures and $6.4 billion were state expenditures (Table 3).
- In 19 states, public costs related to unintended pregnancies exceeded $400 million (Map 3). Texas spent the most ($2.9 billion), followed by California ($1.8 billion), New York ($1.5 billion) and Florida ($1.3 billion). (Those four states are the nation's most populous.)
- To put these figures in perspective, the federal and state governments together spent an average of $336 on unintended pregnancies for every woman aged 15–44 in the country.
- The average per woman aged 15–44 public expenditures on unintended pregnancies ranged from $107 in New Hampshire to $790 in Alaska; expenditures varied by state for a number of reasons, including variations in medical costs, the proportions of women who are poor and on Medicaid, the proportions of all births that are unplanned and the overall fertility rate of women in the state.
- The total potential gross savings from enabling women to avert all unintended pregnancies in 2010 would have been $15.5 billion. This is less than the total public cost of all unintended pregnancies (74% of that total), because even if all women had been able to time their pregnancies as they wanted, some births still would have been publicly funded when they eventually occurred. In other words, improved access to and use of contraceptives would have, in some cases, only delayed the public costs, rather than avoided them entirely. (These potential savings do not account for the public investment in family planning services and other interventions that might be required to achieve them.)
- The federal and state governments spent $19.8 billion for planned pregnancies in 2010; when added to the $21.0 billion for unplanned pregnancies, the total for all publicly funded pregnancies was $40.8 billion (Table 4). Thus, 51% of government expenditures on pregnancies in 2010 were spent on unplanned pregnancies.
- According to prior Guttmacher Institute research, the public investment in family planning services resulted in $15.8 billion in gross savings in 2010 from helping women avoid unintended pregnancies and the resulting births, abortions and miscarriages.[13] Putting that in the context of this study's findings, in the absence of the publicly funded family planning effort, the annual public costs of unintended pregnancy might be 75% higher—$36.8 billion, instead of $21.0 billion.

MAP 1. Medicaid and other public insurance programs paid for 68% of U.S. births resulting from unintended pregnancies in 2010, including at least 60% of births in 37 states and the District of Columbia



MAP 2. Medicaid and other public insurance programs paid for 51% of all U.S. births in 2010, including at least 40% of births in 35 states and the District of Columbia



MAP 3. Government expenditures on unintended pregnancies totaled $21 billion in 2010, and surpassed $400 million in 19 states