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# Iowa Family Planning Demonstration Evaluation Second Waiver Period

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# Executive Summary

## Family Planning Demonstration


The State of Iowa is expanding a 1115 Family Planning Demonstration through December, 2013. The waiver provides family planning services to men and women 12-54 years of age with income not exceeding 300% of the Federal poverty level for the family size. The extension contains the objectives listed below.

1. Improve the access to and use of Medicaid family planning services by women who have received a Medicaid pregnancy related service.
2. Improve birth outcomes and the health of women by increasing the child spacing interval among women in the target population.
3. Decrease the number of Medicaid-paid deliveries, which will reduce annual expenditures for prenatal, delivery newborn, and infant care.
4. Reduce the number of unintended and unwanted pregnancies among women eligible for Medicaid.
5. Reduce teen pregnancy by reducing the number of repeat teen births.
6. Estimate the overall savings in Medicaid spending attributable to providing family planning services to women for 2 years postpartum.

The 1115 Family Planning Demonstration “Iowa Family Planning Network” began in February 1, 2006. The final report for the evaluation of the first 5 years of the waiver program indicated the following successes.

## Successes

1. The demonstration has increased the number of women receiving family planning services within the Medicaid program. Over 65,000 women have accessed family planning services through this demonstration.

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2. The repeat birth rates for women accessing family planning services have dropped for most age groups with large decreases among teens.
  3. Reductions in Medicaid costs for deliveries and birth and first year of life are over \$50 million.
  4. Net Medicaid savings are well over \$10 million from this demonstration.

## **Evaluation**

The evaluation plan for the extension will mirror the previous work very closely with adjustments for changes in the objectives as reflected above. In particular, we will include men in the analyses of family planning service usage. The evaluation budget is limited to \$20,000 per year. This level of resource support provides no funding for survey work or extensive data analyses. For this reason, the evaluation team is unable to perform target surveys to determine whether births were intended or unintended as has been done by other evaluation teams. Complex modeling to determine the effects of the expansion are also limited due to time and resource constraints. The simple evaluation plan provided may not adequately address all of the state's objectives.

## Data

Evaluation data are compiled from claims and enrollment files for the period January 1, 2001 through December 31, 2012. The data are housed within the Research Computing Center, a unit of the Dental Informatics Department of the College of Dentistry at The University of Iowa. The following protocols clarify the methods and operationalize variables and formulas needed to complete the analyses.

**Year to allocate services** - The services provided on a claim are counted within the measurement year if the first date of service occurred within the measurement year. This decision rule is important in determining the costs for prenatal care and birth for the baseline numbers. As an example, a woman admitted to the hospital for delivery on January 30, 2008 and discharged on February 3, 2008 will have the costs for delivery added to the total for the study year including January 2008.

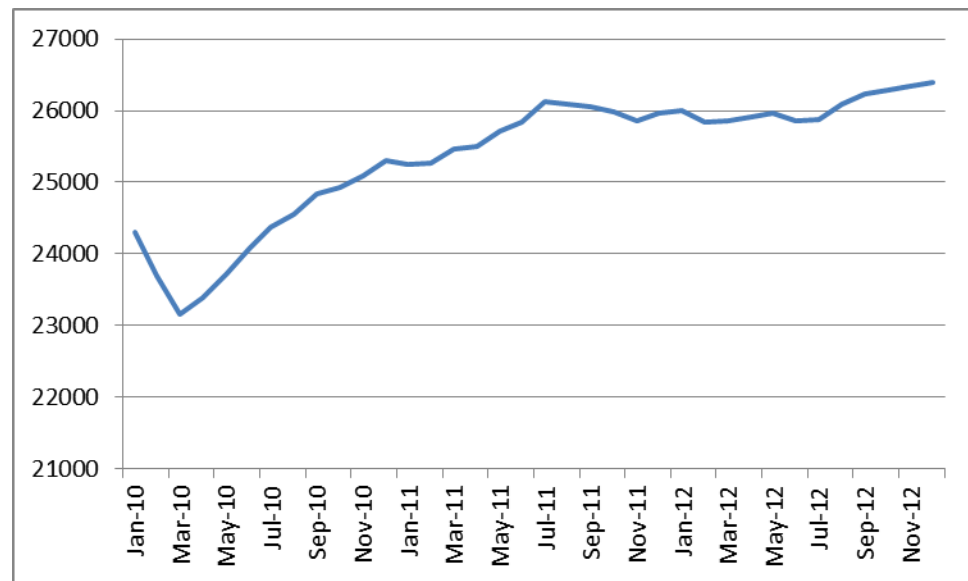
**Mothers and children** – Children and mothers are not matched when determining rates or costs. Costs for all women who are enrolled in Child Medical Assistance Program (CMAP), Family Medical Assistance Program (FMAP) and Mothers and Children program (MAC) when they deliver are used to determine the cost per delivery by year. Any claim with a DRG of 370-375 or diagnosis code with V27 or 650 is considered a delivery; this is unique to the mother. All costs for deliveries are calculated and divided by the number of women delivering in a given year to determine average delivery cost per year. All costs for birth, unique to the child, are calculated and divided by the number of children to determine the average birth cost per year. Delivery cost and birth cost for each year are added to determine the total birth-related cost per year.

**Number of people under 300% poverty** – Sources to estimate the number of people within the state under 300% of poverty were investigated. There are no reliable estimates of people under 300% of poverty across the state for the evaluation period or the age groups of interest.

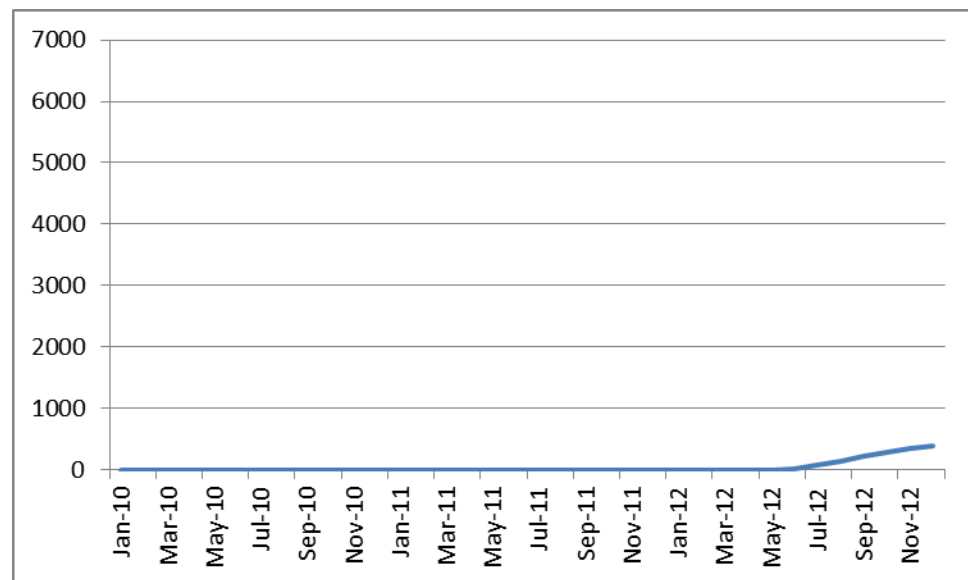
## Enrollment

Figures 1 and 2 show the enrollment levels for women and men during calendar years 2010-2012. The FPD began enrolling men in December 2011, however in December 2012 there were fewer than 600 men enrolled. The enrollment numbers for women have remained static at approximately 25,000.

**Figure 1. Women Enrolled in FPD by month, CY 2010-2012**



**Figure 2. Men Enrolled in FPD by month, CY 2010-2012**



# Results

## Family planning services

**Objective 1: Improve the access to and use of Medicaid family planning services by women who have received a Medicaid pregnancy related service.**

To address this objective we tracked the number of women within the eligible population with a Medicaid-paid family planning service, as defined on the CMS website, during the measurement years.

<b>Data source</b>	Medicaid claims and encounter and enrollment data
<b>Eligible population</b>	Women 12-54 years of age who were enrolled in Medicaid for at least one month during the measurement year
<b>Measurement years</b>	2006-2012
<b>Measure</b>	Costs per member per month (PMPM) for women within the demonstration

### Results

The costs for family planning services to women in the demonstration are shown in Table 1. Actual costs rose from \$5,192,048 to \$9,494,280 over the first four years of the program, then fell and rose again in calendar year 2012. The cost for men's family planning services in 2012 was \$81,371, with a PMPM cost of \$17.

The number of women served through the family planning program remains relatively stable with minimal increases from month to month. Very few men have been served through the program to date.

**Table 1. Cost of family planning services, 2006-2012**

Year	Total cost	PMPM costs	PMPY costs
2006	\$ 5,192,124	\$ 29.97	\$ 359.61
2007	\$ 6,931,922	\$ 26.45	\$ 317.40
2008	\$ 8,649,314	\$ 31.85	\$ 382.15
2009	\$ 9,494,280	\$ 32.98	\$ 395.75
2010	\$ 8,310,489	\$ 27.51	\$ 330.12
2011	\$ 8,572,591	\$ 27.52	\$ 330.24
2012	\$ 9,601,550	\$ 29.87	\$ 358.44

**Objective 2: Improve birth outcomes and the health of women by increasing the child spacing interval among women in the target population.**

In the previous evaluation we were able to determine the rates of repeat births by measuring the number of women who had delivered a child within 24 months of a previous birth. For this project we will utilize a similar approach changing the outcome to number of months since previous birth, not whether or not a birth had occurred in the 24 months window. This measure presents some problems due to length of time for the expansion project. With a two-year study period it is difficult to determine what the spacing may be. The first year of the study is an implementation period with the first expected effects of prevented contraception being seen by month 6, however, these will not manifest as deliveries until approximately 9 months later. Measurement data is restricted to 2012 and 2013, a protracted period for outcomes related to delivery.

<b>Data source</b>	Medicaid claims and enrollment files
<b>Eligible population</b>	Women 12-54 years of age enrolled in Medicaid who had a delivery during the measurement year
<b>Measurement years</b>	2012-2013
<b>Spacing measure</b>	Number of months from first birth record to second birth record for women who had a repeat birth.
<b>Repeat measure</b>	Proportion of women who had a repeat birth within 24 months

**Results**

We have not addressed this objective in the first year of the extension.



## Medicaid deliveries

**Objective 3: Decrease the number of Medicaid-paid deliveries, which will reduce annual expenditures for prenatal, delivery newborn, and infant care.**

A decrease in the number of repeat births by nature indicates a decrease in the rate of Medicaid-paid deliveries. In addition, covering family planning services for women who have not qualified for this coverage before should result in fewer births, as women are able to access continuous family planning. Given that the use of family planning services normally results in the avoidance of pregnancy, we anticipate that the annual rate of Medicaid paid deliveries will decrease.

<b>Data source</b>	Medicaid claims and enrollment files
<b>Eligible population</b>	Women 12-54 years of age enrolled in Medicaid who had a delivery during the measurement year.
<b>Measurement years</b>	2007-2013
<b>Count of deliveries</b>	Count of all deliveries regardless of status at birth for each measurement year (multiples will be counted as one delivery)

### Results

Figure 3 provides a graphical representation of demonstration effects. There are 4 lines on the graph:

- FMAP deliveries per quarter for 5 years prior to the demonstration
- FMAP deliveries per quarter for the demonstration period
- MAC deliveries per quarter for the 5 years prior to the demonstration
- MAC deliveries per quarter for the demonstration period

The upper bound estimated for averted births is provided by subtracting the MAC slope after the program from the MAC slope before the program. A conservative estimation procedure that attempts to account for enrollment changes was also used. The slope of the line for MAC before the demonstration minus the adjusted value for the slope of the FMAP line before the demonstration provides an estimate of the slope of the MAC line before the program that may be accounted for by fertility

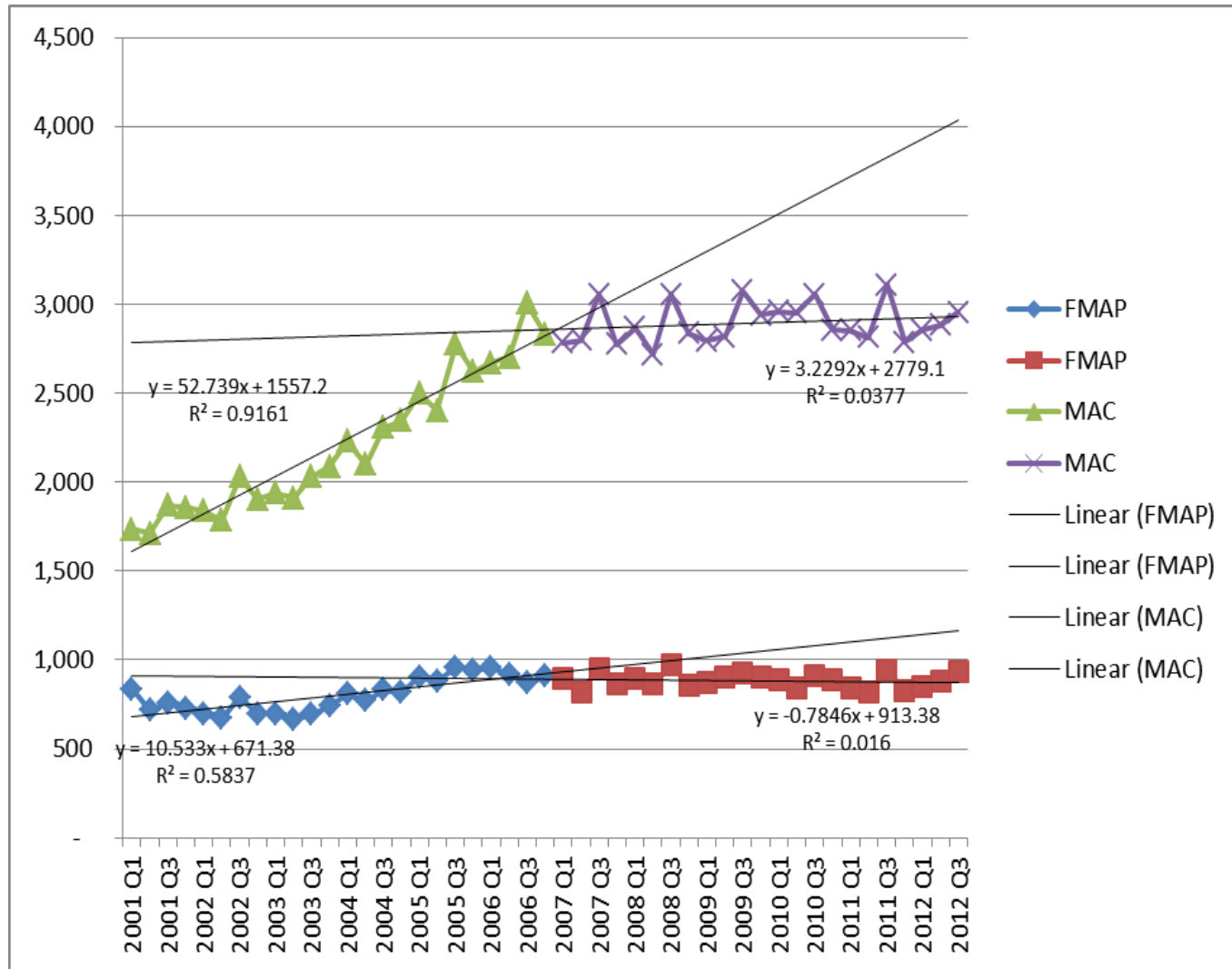
rates before the program. The slope of the MAC line after the program began minus the adjusted slope of the line of FMAP provides an estimate of the slope of the MAC line that may be accounted for by fertility rates after the program. Subtracting the "after program" slope from the "before program" slope provides a number of averted births.

According to these methodologies, from 5,999 to 14,850 births were averted during the seven years of the demonstration. Since the effects of family planning services are offset by nine months, additional births will be averted during 2013 that are not included in these estimates. Table 2 provides the number of averted births by year using the upper and lower bound estimations and providing a midpoint.

**Table 2. Estimation of averted births, upper, midpoint, and lower bound estimates, 2007-2012**

Year	Upper	Midpoint	Lower
2007	495	358	221
2008	1287	931	575
2009	2079	1504	292
2010	2871	2077	1283
2011	3663	2650	1637
2012	4455	3223	1991
<b>Total</b>	14850	10743	5999

Figure 3. Numbers of deliveries by quarter, 2001-2012



**Objective 4: Reduce the number of unintended and unwanted pregnancies among women eligible for Medicaid.**

Under the assumption that any reduction in the birth rate represents a reduction in unintended pregnancies we will use the objective 3 analyses to evaluate this objective.

**Objective 5: Reduce teen pregnancy by reducing the number of repeat teen births.**

The evaluation of this objective is contained within the analyses for objective 2.

**Objective 6: Estimate the overall savings in Medicaid spending attributable to providing family planning services to women for 1 year postpartum.**

Four cost categories are combined to calculate Medicaid savings attributable to providing family planning services to women 1 year postpartum. The birth and delivery costs consist of prenatal care, care given with a diagnosis code related to pregnancy prior to delivery; cost of birth care, costs associated with the delivery as indicated by a diagnosis code indicating a delivery; newborn care, care provided to a child under the age of 1 month; and infant care, all care provided to children from 1 month to 1 year of age whose births were paid for by the Medicaid program.

<b>Data source</b>	Medicaid claims files
<b>Eligible population</b>	Women 12-54 years of age enrolled in Medicaid and children birth through 1 year of age enrolled in Medicaid
<b>Measurement years</b>	2007-2013
<b>Cost of care</b>	Medicaid costs associated with claims bearing a diagnosis code indicating prenatal care, claims bearing a diagnosis code indicating a birth (for children) or a delivery (for women), claims for children up to 1 month of age and claims for children from 1 month to 1 year of age
<b>Savings</b>	Number of reduced births accountable to the provision of family planning services to women 1 year postpartum times the cost of care

## Results

Table 3 provides the costs for delivery and birth and the first year of life from 2000 through 2012. The average cost for the mother in 2012 was \$7,975, while the average for cost for the birth and first year of life for the child in 2012 was \$7,230. This results in \$15,205 savings for each averted birth in 2012.

**Table 3. Average Medicaid costs for delivery and birth through 1<sup>st</sup> year of life, 2000-2012**

Year	Delivery	Birth through 1 <sup>st</sup> year of life	Total
2000		\$5,245	
2001	\$4,593	\$4,938	\$9,531
2002	\$4,771	\$5,472	\$10,243
2003	\$4,750	\$4,975	\$9,725
2004	\$4,906	\$5,662	\$10,568
2005	\$5,228	\$5,256	\$10,484
2006	\$5,656	\$5,962	\$11,618
2007	\$6,068	\$6,656	\$12,724
2008	\$6,244	\$6,772	\$13,016
2009	\$6,904	\$6,506	\$13,410
2010	\$6,906	\$ 7,038	\$ 14,036
2011	\$7,421	\$ 7,071	\$ 14,492
2012	\$7,975	\$ 7,230	\$ 15,205

To determine the reductions in costs from the demonstration, the Medicaid average costs for delivery and birth through first year of life were multiplied by the midpoint estimates of averted births. The total savings from the demonstration due to averted costs associated with delivery and birth through first year of life were over \$150 million through December 2012 (Table 4). It is important to remember that these savings estimates do not include continuing costs for children who remain on Medicaid past their first birthday. Approximately 40% of children who had a Medicaid paid birth will remain on Medicaid five or more years.

**Table 4. Savings associated with averted births, 2007-2012**

Year	Averted births	Delivery cost	Birth and first year of life costs	Estimated savings due to averted births
2007	358	\$6,068	\$6,656	\$4,555,192
2008	931	\$6,244	\$6,772	\$12,117,896
2009	1504	\$6,904	\$6,506	\$20,168,640
2010	2077	\$6,906	\$7,038	\$28,961,688
2011	2650	\$7,421	\$7,071	\$38,403,800
2012	3223	\$7,975	\$7,230	\$49,005,715

Table 5 provides estimates of the net savings to Medicaid resulting from the family planning demonstration using the midpoint estimates. It is difficult to provide exact net savings numbers; however, the true value most likely lies near the midpoint. Over the five years of the original demonstration period and the first two years of the extension period, an estimated \$96 million saved through an investment of \$56 million for a return of \$1.70 for every dollar spent.

**Table 5. Net savings in Medicaid costs due to the family planning demonstration program**

Year	Total costs averted	FP service costs	Net savings
2006	\$0	\$5,192,124	(\$5,192,124)
2007	\$4,555,192	\$6,931,922	(\$2,376,730)
2008	\$12,117,896	\$8,649,314	\$3,468,582
2009	\$20,168,640	\$9,494,280	\$10,674,360
2010	\$28,961,688	\$8,310,489	\$20,651,199
2011	\$38,403,800	\$8,572,591	\$29,831,209
2012	\$49,005,715	\$9,601,550	\$39,404,165
Total	\$153,212,931	\$56,752,270	\$96,460,661