



Iowa Family Planning Demonstration Evaluation Third Waiver Period

Period ending December 2015

Elizabeth T Momany, PhD
Associate Research Scientist

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Introduction

This report is the latest in a series of reports evaluating the Iowa 1115 Family Planning Demonstration program. The results in this report are for the period January 1, 2015 through December 31, 2015 utilizing data from the study period July 1, 2001 through December 31, 2015.

Study Caveat

During part of this report period, January 1, 2014 through December 31, 2015 there were a number of concurrent changes in the financing and delivery of health care locally and nationally as a result of federal Affordable Care Act (ACA) implementation and the emergence of health exchanges. For example, on January 1, 2014 the Iowa Health and Wellness Plan began providing a health coverage option for women from 0-133% FPL that mirrored many of the benefits available in Medicaid and exceeded the coverage provided in the Family Planning Demonstration (FPD). In addition, the provision of health insurance coverage mandated by the ACA may have shifted women with incomes of 134-300% of the Federal Poverty Level (FPL) into private health plans. For women in this latter group, we are unable to determine if they accessed family planning services or delivered a child. Due to this shift in coverage, our estimate of cost savings, which are based on the number of deliveries, have been adjusted to provide a conservative estimate of savings.

Family Planning Demonstration

The 1115 Family Planning Demonstration “Iowa Family Planning Network” began in February 1, 2006. The State of Iowa has continued the 1115 Family Planning Demonstration, with the program currently extended through December, 2016. The waiver provides family planning services to men and women 12–54 years of age with income not exceeding 300% of FPL 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.

To date, the waiver program has had a number of successes.

Successes

- 1) The demonstration has increased the number of women receiving family planning services within the Medicaid program. Over 80,000 women have accessed family planning services through this demonstration.
- 2) Reductions in Medicaid costs for deliveries and birth and first year of life are nearly \$345 million.
- 3) Very conservative estimates of net Medicaid savings are over 265 million from this demonstration or nearly \$3.40 for every dollar spent. These costs do not take into account additional savings past the first year of life for children born into the Medicaid program. They also do not provide estimates of the savings in other social service provision that derives from fewer deliveries.

Challenges

- 1) The number of women served annually through the FPD has fallen since the beginning of the Iowa Health and Wellness Plan, Iowa's expanded coverage option. We are unable to determine whether these women have been able to access family planning services through private plans.
- 2) Lack of funding for evaluation activities has limited the ability to adjust the modelling methods over time. More accurate estimates could be provided with increases in funding.

Evaluation

Data

Evaluation data are compiled from claims and enrollment files for the period January 1, 2001 through December 31, 2015. 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 year of the first date of service. 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 December 30, 2014 and discharged on January 3, 2015 will have the costs for delivery added to the total for the study year 2014

Mothers and children

Costs per delivery per year are calculated for all women enrolled in the Child Medical Assistance Program (CMAP), Family Medical Assistance Program (FMAP) and Mothers and Children program (MAC). Any claim with a DRG of 370–375 (prior to November 2011), a DRG of 765–768, 774 or 775 (November 2011 onward), or diagnosis code with V27 or 650 (through December 2014) is considered a delivery; this is unique to the mother. Beginning in CY 2015, we limited the designation of delivery the MS-DRG codes 765-768, 774 or 775. After comparing the number of deliveries found using more complicated protocols, we concluded that the MS-DRG protocol identifies over 99% of deliveries. All costs for prenatal care, all care delivered and medications prescribed during the prenatal period, and delivery 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. Children and mothers are not matched when determining rates or costs.

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

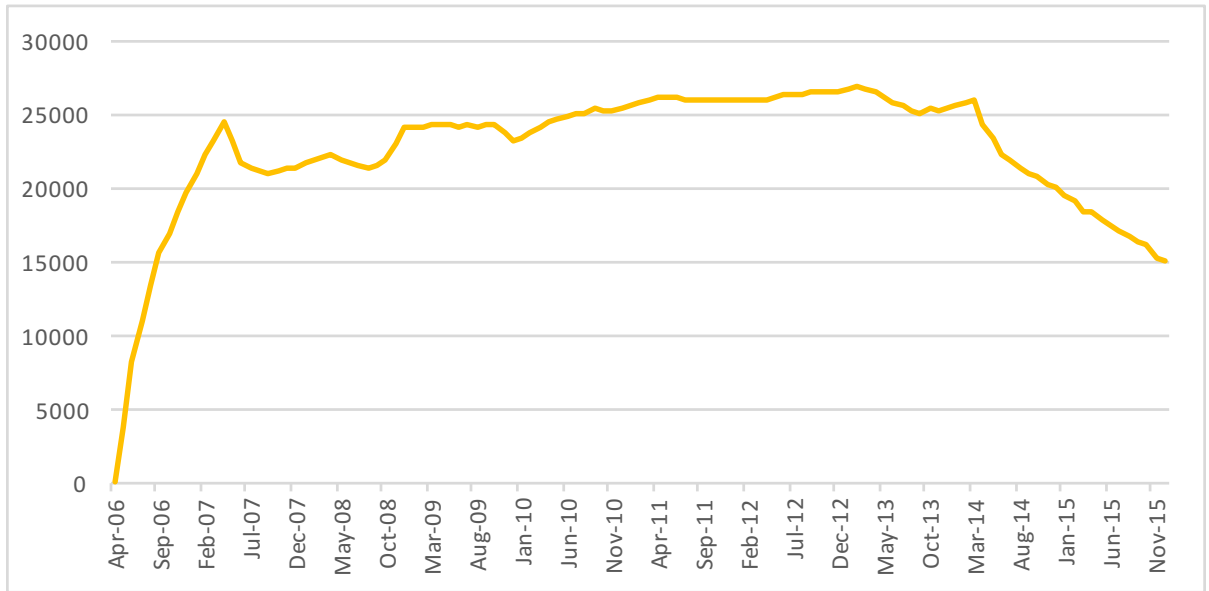
Enrollment data is provided to the PPC on a monthly basis. This allows for the immediate and accurate provision of information on Medicaid membership. However, enrollment statistics, even those calculated retrospectively, change from month to month. The data found in the tables below were calculated using the April 2016 enrollment files. These numbers would differ slightly if we had used data provided in some other month such as May 2016. Therefore, these numbers should be considered very reliable estimates. Table 1 provides a breakdown of number of months in the family planning program, gender, race and age during CY 2015. As might be expected, though the program is designed to serve members as young as 12 years of age, the majority of members enrolled in the FPD are between the ages of 21 and 34 years of age (72%). The Family Planning Demonstration (FPD) began enrolling men in December 2011; enrollment peaked in December 2012 with 641 men enrolled. The monthly enrollment numbers for women peaked at nearly 27,000 in November 2012.

**Table 1. Length of family planning enrollment, age, gender, and race
CY 2015**

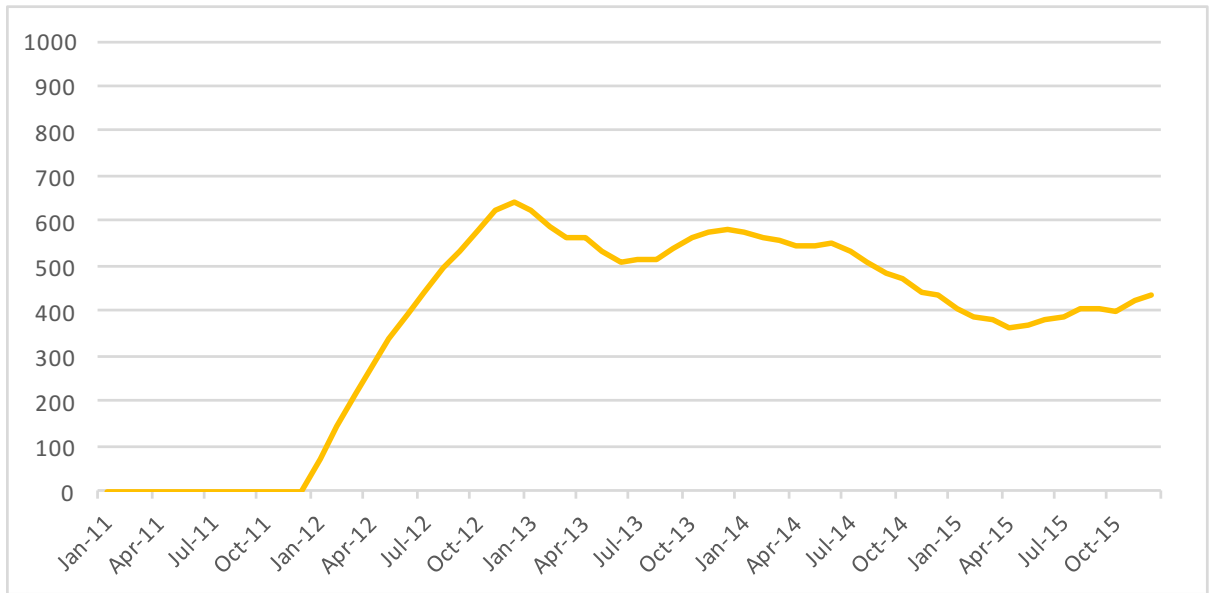
Characteristic	Number	Percent
Length of enrollment		
1-3 month	10,407	32%
4-6 months	7,431	23%
7-9 months	6,661	21%
10-11 months	3,880	12%
12 months	4,072	13%
Sex		
Female	31,599	97%
Male	852	3%
Race		
White	20,462	63%
Black	2,050	6%
American Indian	362	1%
Asian	550	2%
Hispanic	1,374	4%
Pacific Islander	171	1%
Multiple race-Hispanic	634	2%
Multiple race- Other	363	1%
Unreported	6,485	20%
Age		
13-18 years	1,142	4%
19-20 years	4,064	13%
21-24 years	9,194	28%
25-34 years	14,325	44%
35-44 years	3,215	10%
45-54 years	511	2%

Figures 1 and 2 show the enrollment levels for all members during the period CY 2006–CY 2015. There were steady declines beginning in CY 2013 resulting in a nearly 50% reduction in women enrolled in FPD by the end of CY 2015. Though it is difficult to understand this phenomenon, the CY 2014 report provided evidence to suggest that women were moving to alternative coverage sources such as Iowa Health and Wellness Plan, the bipartisan solution for expanding coverage in Iowa that began on January 1, 2014. See <http://ppc.uiowa.edu/publications/iowa-family-planning-demonstration-evaluation-third-waiver-period> .

**Figure 1. Women Enrolled in FPD by month
CY 2006–CY 2015**



**Figure 2. Men Enrolled in FPD by month
CY 2011-CY 2015**



Number served

The number of women served through the family planning program falls over CY 2015 from 18,429 in January 2015 to 14,567 in December 2015. Only 407 men were served in January 2015 increasing to 434 in December 2015.

Results

Family planning services

Objective 1: Improve the access to and use of Medicaid family planning services by women and men under 300% FPL.

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

Data source	Medicaid claims and encounter and enrollment data
Eligible population	Members 12–54 years of age who were enrolled in Medicaid for at least one month during the measurement year
Measurement years	January 1, 2006–December 31, 2015
Measure	Costs per member per month (PMPM) for women within the demonstration

Findings

The costs for family planning services to women in the demonstration are shown in Table 2. Actual costs rose from \$5,192,124 (\$29.97 PMPM) to \$9,494,280 (\$33.01 PMPM) over the first four years of the program, declining for the following two years then rising to peak at \$10,137,374 (\$32.99 PMPM) in CY 2012 before falling to \$6,721,486 (\$26.68 PMPM) in CY 2014 and \$3,667,306 (\$18.41 PMPM) in CY 2015. The cost for men’s family planning services in CY 2012 was \$88,161 (\$18.47 PMPM) falling to \$64,751 (\$10.42 PMPM in CY 2014) and continuing to fall in CY 2015 to \$56,416 (\$11.89 PMPM).

**Table 2. Cost of female family planning services
CY 2006–2015**

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	\$ 31.83	\$ 381.98
2009	\$ 9,494,280	\$ 33.01	\$ 396.09
2010	\$ 9,206,530	\$ 30.47	\$ 365.69
2011	\$ 8,568,748	\$ 27.51	\$ 330.09
2012	\$ 9,717,669	\$ 30.65	\$ 367.77
2013	\$ 10,137,374	\$ 32.99	\$ 395.88
2014	\$ 6,721,486	\$ 26.68	\$ 320.16
2015	\$ 3,667,306	\$ 18.41	\$ 198.88

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

Findings

We have not addressed this objective during 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 Medicaid-paid deliveries could be the result of a either: 1) a decrease in the number of repeat births by mothers continually in the Medicaid program, or 2) covering family planning services for women who have not qualified for this coverage before.

Data source	Medicaid claims and enrollment files
Eligible population	Women 12–54 years of age enrolled in Medicaid who had a delivery during the measurement year.
Measurement years	January 1, 2007-December 31, 2015
Count of deliveries	Count of all deliveries regardless of status at birth for each measurement year (multiples will be counted as one delivery)

Findings

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

As mentioned at the beginning of this report, due to concurrent changes in the health care financing and delivery systems that began in 2014, we modified our estimating process to be a little more conservative for this report to account for environmental changes we are not able to measure.

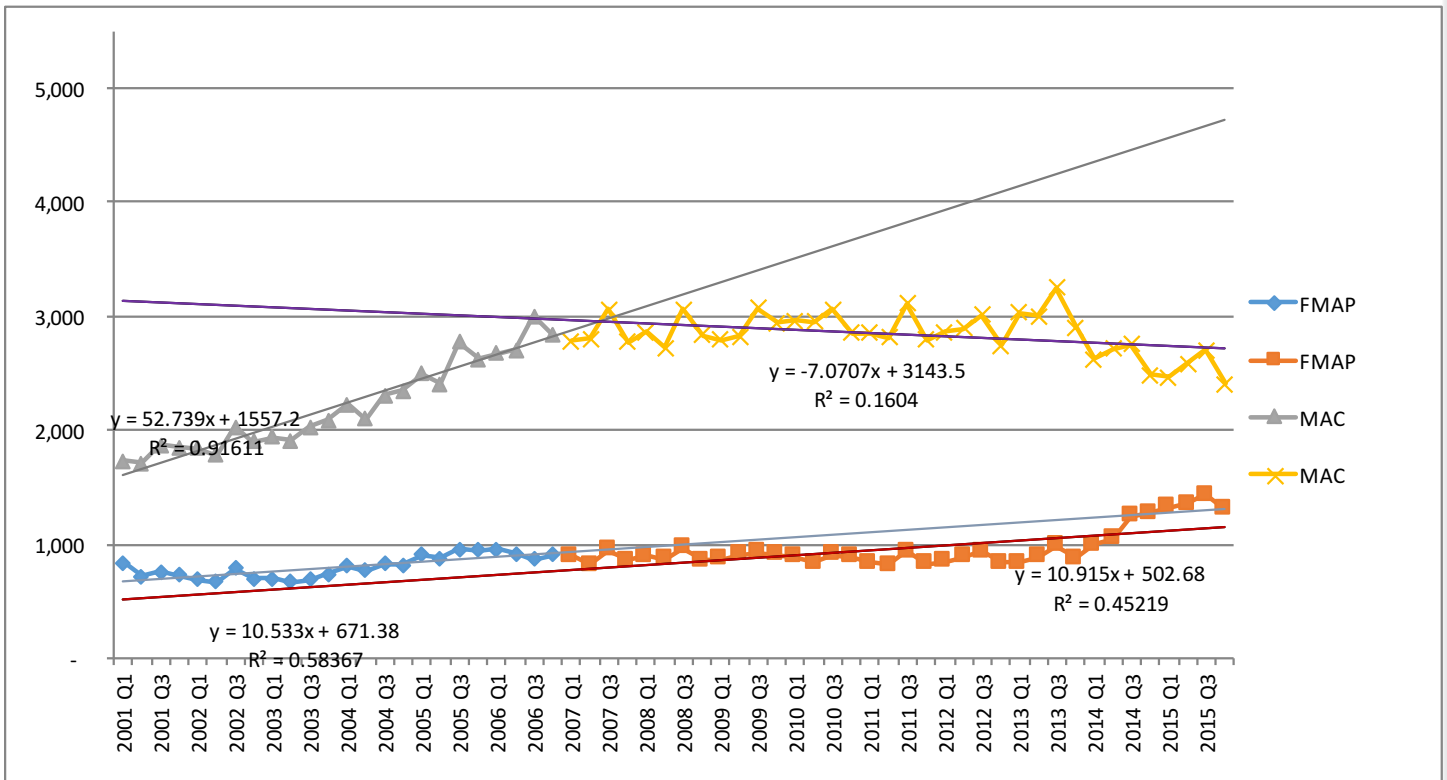
The upper bound estimated for averted births is provided by subtracting the slope of the line for MAC after the program from the slope of the line for MAC before the program. A conservative estimation procedure that attempts to account for enrollment changes was also used. The slope of the line for MAC 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 an estimate of the number of averted births.

According to these methodologies, from 16,117 to 8,756 births were averted during the nine years of the demonstration. Table 3 provides the number of averted births by year using the upper and lower bound estimations and providing a midpoint.

Table 3. Estimation of averted births, upper, midpoint, and lower bound estimates, CY 2007–CY 2015

Year	Upper	Midpoint	Lower
2007	217	190	164
2008	946	695	444
2009	1,465	1,184	904
2010	1,914	1,561	1,209
2011	2,668	2,109	1,550
2012	3,519	2,741	1,963
2013	3,903	3,123	2,343
2014	5,913	4,504	3,096
2015	8,211	6,327	4,444
Total	28,756	22,434	16,117

Figure 3. Numbers of deliveries by quarter Q1 2007-Q4 2015



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, the results from the analyses in Objective 3 can also be used 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.

Data source	Medicaid claims files
Eligible population	Women 12–54 years of age enrolled in Medicaid and children birth through 1 year of age enrolled in Medicaid
Measurement years	CY 2007–CY 2015
Cost of care	Medicaid costs associated with claims bearing a diagnosis code indicating prenatal care including all care provided in the prenatal or postpartum period, 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
Savings	Number of reduced births accountable to the provision of family planning services to women 1 year postpartum times the cost of care

Findings

Table 4 provides the costs for delivery and birth and the first year of life from CY 2000 through CY 2015. The average cost for the mother in 2015 was \$8,688, while the average cost for the birth and first year of life for the child in 2015 was \$7,630. This results in \$16,318 savings for each averted birth in 2015.

**Table 4. Average Medicaid costs for delivery and birth through 1st year of life
CY 2000-CY 2015**

Year	Delivery	Birth through 1st year of life	Total
2000		\$5,245	\$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	\$6,240	\$6,772	\$13,012
2009	\$6,890	\$6,505	\$13,395
2010	\$6,998	\$7,035	\$14,033
2011	\$7,413	\$7,065	\$14,478
2012	\$8,059	\$7,544	\$15,603
2013	\$8,049	\$7,841	\$15,890
2014	\$7,733	\$7,562	\$15,295
2015	\$8,688	\$7,630	\$16,318

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 \$340 million through December 2015 (Tables 5 and 6). 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 5. Savings associated with averted births
CY 2010-CY 2015**

Year	Averted births	Delivery cost	Birth and first year of life costs	Estimated savings due to averted births
2007	190	\$6,068	\$6,656	\$2,417,560
2008	695	\$6,240	\$6,772	\$9,043,340
2009	1184	\$6,890	\$6,505	\$15,859,680
2010	1561	\$6,998	\$7,035	\$21,905,513
2011	2109	\$7,413	\$7,065	\$30,534,102
2012	2741	\$8,059	\$7,544	\$42,767,823
2013	3123	\$8,049	\$7,841	\$49,624,470
2014	4504	\$7,733	\$7,562	\$68,888,680
2015	6327	\$8,688	\$7,630	\$103,243,986

Table 6 provides estimates of the net savings to Medicaid resulting from the family planning demonstration using the midpoint estimates. Over the five years of the original demonstration period and the next five years of the extension period, an estimated \$266 million was saved through an investment of \$78 million for a return of \$3.40 for every dollar spent.

**Table 6. Net savings in Medicaid costs due to the family planning demonstration program
CY 2006-2015**

Year	Total costs averted	FP service costs	Net savings
2006	\$0	\$ 5,192,124	(\$5,192,124)
2007	\$2,417,560	\$ 6,931,922	(\$4,514,362)
2008	\$9,043,340	\$ 8,649,314	\$394,026
2009	\$15,859,680	\$ 9,494,280	\$6,365,400
2010	\$21,905,513	\$ 9,206,530	\$12,698,983
2011	\$30,534,102	\$ 8,568,748	\$21,965,354
2012	\$42,767,823	\$ 9,717,669	\$33,050,154
2013	\$49,624,470	\$ 10,137,374	\$39,487,096
2014	\$68,888,680	\$ 6,721,486	\$62,167,194
2015	\$103,243,986	\$ 3,667,306	\$99,576,680
Total	\$344,285,154	\$ 78,286,753	\$265,998,401

While the extrapolation method provides reasonable estimates of averted births and savings for the first few years after the implementation of the program, the continued use of this model for the long term becomes increasingly difficult.

In order for the program to reach economic parity, the expense of \$3.7 million spent on family planning services in 2015 would have needed to avert a total of 225 births, for the roughly 119,000 months of family planning services provided. This equates to averting one birth per 529 months provided. From these results, the absence of access to family planning services would have resulted in more than one birth per 695 months of services, supporting the cost-effectiveness of the program.

Summary

Over the last 10 years the FPD has provided significant returns to the state in the form of averted births and the avoidance of Medicaid payments that would have been made for the prenatal and delivery care of the mother and for the newborn and first year care of the infant. These costs are merely one aspect of the state-level expenditures associated with an averted birth for women under 300% FPL. A variety of programs funded, at least partially, by the state are provided for low-income mothers and children. These programs encompass housing assistance, food assistance, and transportation. Clearly, any averted births result in expenditure avoidance in these programs as well, making the avoided costs much higher than the estimates provided in this report.