

Reducing Not Medically Indicated C-sections between 37 and 39 Weeks Gestation

A Performance Improvement Project

Alabama Medicaid Agency

Summary of Project Results

Janet M. Bronstein, Ph.D.

Sally Engler, B.A.

Lister Hill Center for Health Policy

October 2012

Introduction and Summary Findings

In the Fall of 2011, the 14 Medicaid Maternity Districts undertook a Performance Improvement Project (PIP) designed to reduce C-sections performed at 37 weeks to 38 weeks 6 days gestation which were not indicated for medical reasons. Each district implemented a two-pronged approach: they educated patients about the importance of waiting until term to deliver their babies and they provided information to the delivering physicians in their districts about the trends in early C-section deliveries and the reasons not to perform these if they are not indicated. Educational materials from the March of Dimes “Healthy Babies are Worth the Wait” campaign were used for this educational effort. In some Districts, local hospitals joined in or had their own independent campaigns to reduce rates of these procedures. According to the notes compiled on the intervention progress by the Districts, some physicians were responsive to the material, but other physicians disagreed with the effort and were not interested in altering their practices in this regard. In addition, several districts experienced turnover among delivering physicians during the project.

The Lister Hill Center was asked by the Managed Care Division of the Alabama Medicaid Agency to compile a report on the results of the PIP. Each District provided a summary of (1) total deliveries conducted by each physician, (2) number of C-sections performed at gestational ages between 37 and 39 weeks, and (3) the number of these C-sections which did not include codes indicating an appropriate indication for the delivery. Appropriate indications for C-section deliveries before 39 weeks include placental abruption, fetal malformation, placenta previa, twin pregnancy (with complication), preeclampsia, breech presentation (with active labor), gestational hypertension, gestational diabetes myelitis, prolapse of limb or cord, heart disease, fetal demise, liver disease (e.g. cholestasis of pregnancy), oligohydramnios, chronic hypertension, and polyhydramnios among others.¹ Data were provided for two 6-month periods: January through July 2010 and July through December 2011.

For this report we conducted 6 analyses on the data from the state overall and from each District. The first analysis compared overall C-section rates for pregnancies with gestational age between 37 and 39 weeks out of all deliveries in the district in each time period. The second analysis compared average C-section rates for each provider in each time period. The third analysis compared the portion of C-sections that were not medically indicated overall in the district for each time period. The fourth analysis compared the portion of C-sections that were not medically indicated on average for each provider in each time period. The fifth analysis divided the providers delivering in the district in 2010 into two groups: those with C-section rates above the median for the state in the time period, and those below the median for the state in the time period. We then assessed their C-section rates in the 2011 time period and categorized them as above, below or the same as the rates for each physician in the 2010 period. If the physician was not still delivering in the second time period, this is noted. The sixth analysis does the same thing, looking at providers with above or below the median portion of not medically indicated C-sections in the 2010 period, and assessing the change in their portions in the 2011 period. Providers were excluded from the analysis if they did not begin performing deliveries in the District until 2011.

The strongest indicator of success for the Districts in this educational effort is the measure of whether mean provider portions of not medically indicated births declined in 2011 compared to 2010 (analysis 4). In some cases in the Districts, mean provider portions did decline, but the overall portion of not medically indicated C-sections in the District

¹ Main E, Ohsiro B, Chagolla B, Bingham D, Dan-Kilduff L, and Kowalewski L. Elimination of Non-medically Indicated (Elective) Deliveries Before 39 Weeks Gestational Age. (California Maternal Quality Care Collaborative Toolkit to Transform Maternity Care) Developed under contract #08-85012 with the California Department of Public Health; Maternal, Child and Adolescent Health Division; First edition published by the March of Dimes, July 2010. Deliveries Before 39 Weeks Gestational Age. (California Maternal Quality Care Collaborative Toolkit to Transform Maternity Care) Developed under contract #08-85012 with the California Department of Public Health; Maternal, Child and Adolescent Health Division; First edition published by the March of Dimes, July 2010.

increased or remained the same because providers vary in the size of their caseloads, and the highest caseload provider could be the one whose portion did not decline in the two periods. Changes in the measure of mean provider C-section rates (analysis 2) is also important, as physicians may reduce their overall tendency to provide C-sections before term without this being reflected in the coding included on Medicaid claims. Note that the denominator for the C-section rate is all deliveries, not all deliveries between 37 and 39 weeks. This is why the C-section rates shown here are low compared to the usually reported rate (about 30%) of C-sections out of all deliveries.

The table below summarizes the findings presented in this report. The word “up” indicates an increase of more than 5%, the word “down” indicates a decrease of more than 5% and the straight line indicates no change greater than 5% in the two time periods analyzed.

	C-section Rates among All Deliveries		Portion of Not Medically Indicated C-sections among all C-sections between 37 and 39 Weeks	
	Overall	Per Provider	Overall	Per Provider
Statewide	Down	Down	Down	Down
District 1	Down	Down	-----	Down
District 2	Down	Down	-----	Down
District 3	Down	-----	Down	Down
District 4	Down	Up	-----	Up
District 5	Down	Down	Up	-----
District 6	Up	Up	-----	Up
District 7	Down	Down	Down	Down
District 8	Down	Down	-----	Down
District 9	Down	Down	Down	Down
District 10	Up	Up	Down	Down
District 11	Down	Down	Down	Down
District 12	Down	Down	Down	Down
District 13	Up	Down	Down	Down
District 14	Down	Down	Down	-----

As this table shows, the PIP intervention was associated with a general trend towards fewer C-sections and a reduced portion of not medically indicated C-sections over the time period. Across the state, the C-section rate out of all deliveries fell 16% between January and July 2010 to July to December 2011. The portion of these C-sections that were not medically indicated fell 26% over this time period. Average C-section rates and average portion of C-sections not medically indicated per provider also declined statewide. Many Districts also showed a decline in these measurements between the two time periods.

This report first presents overall statewide findings, and then the findings for each District. The sections are divided into the 6 measures described above and the District sections have summaries of the findings in the District. The differences are tested for statistical significance, and differences that are statistically significantly different are indicated with asterisks. The level of significance is an indication of how likely the difference is due to chance, so a significance level or p value of < .001 means that there is less than a 0.1% chance that the difference is random. However when the numbers of cases compared are very small, it is very difficult to reach this level of statistical significance. Thus the absence of statistical significance should be interpreted with caution.

The section on the Districts is followed by a compilation of the results for the 8 districts that are combined by program, with a set of tables for the Best Start Districts (1 and 2), the Greater Alabama Health Network Districts (4, 5 and 7) and the Gift of Life Districts (6, 10 and 12). We have included intervention narratives from the District Directors' reports as they shed light on the barriers and successes when the PIP was implemented.

Findings

Statewide:

1.0. Overall C-section Rates Declined in the Post Period, For the State as a Whole

Statewide, Medicaid providers performed 14,035 deliveries from January to June 2010 and 14,540 deliveries from July to December 2011. Among all deliveries, there were 1,301 (9.3%) C-sections performed between 37 and 39 weeks in the baseline period and 1,133 (7.8%) during the follow-up period. The Maternity Care Program Performance Improvement Project (PIP) was implemented among Medicaid providers to eliminate non-medically indicated Cesarean deliveries between 37 and 39 weeks gestational age in the Alabama Medicaid Population during the follow-up period January to June 2011. Despite an increase (3.6%) in the total number of deliveries statewide in the follow-up period, there was a 13% reduction in the overall number of C-sections performed and a 16% reduction in the rate of C-sections between 37 and 39 weeks between 37 and 39 weeks gestation among all births among the Medicaid Maternity population in Alabama.² See Table 1.0.

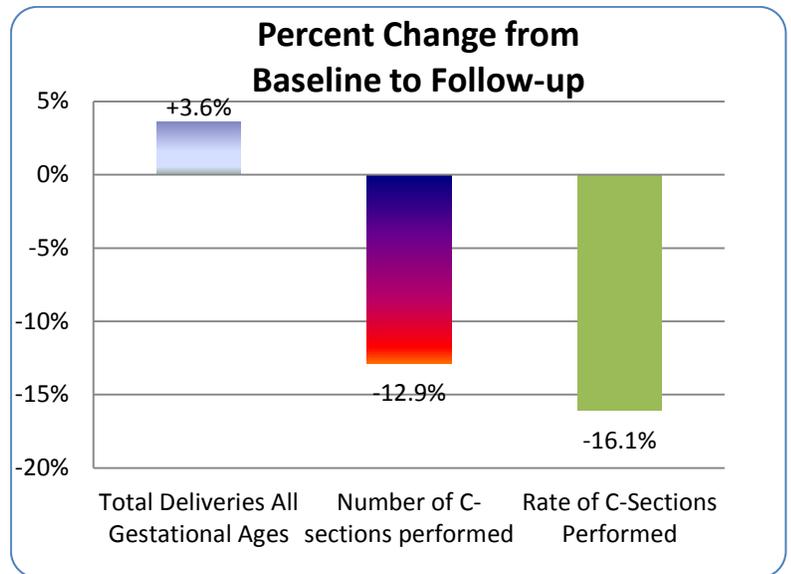
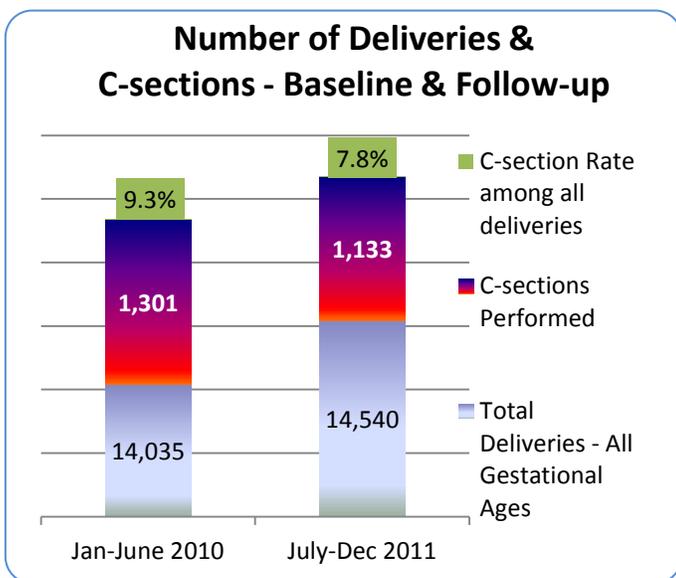


Table 1.0. Overall Deliveries, Total C-sections and C-section Rates

Statewide	Jan-June 2010	July-Dec 2011	% Change
Total Deliveries	14,035	14,540	+3.6%
C-sections	1,301	1,133	-12.9%
C-section Rate	9.3%	7.8%	-16.1%

² The total deliveries represent the total number of all deliveries, regardless of type or gestation age.

2.0. Average C-section Rates For Participating Providers Also Declined.

Overall there was a 3.2% increase in the number of providers statewide who performed C-sections from the baseline to the follow-up period. Among the 344 Medicaid maternity providers in the baseline period with any C-sections, there was an average C-section rate of 11.1% (Std. Dev. $\pm 16.1\%$) per provider. Once the Maternity Improvement Program was implemented among the districts statewide, the average C-section rate per provider dropped to 8.1% (Std. Dev. $\pm 9.8\%$) among all deliveries. This represents a 27% reduction in the C-section rate per provider from baseline to follow-up. The analysis revealed that the percent reduction in the mean provider C-section rate from baseline to follow-up was statistically significant at the .01 t-test level. See Table 2.0.

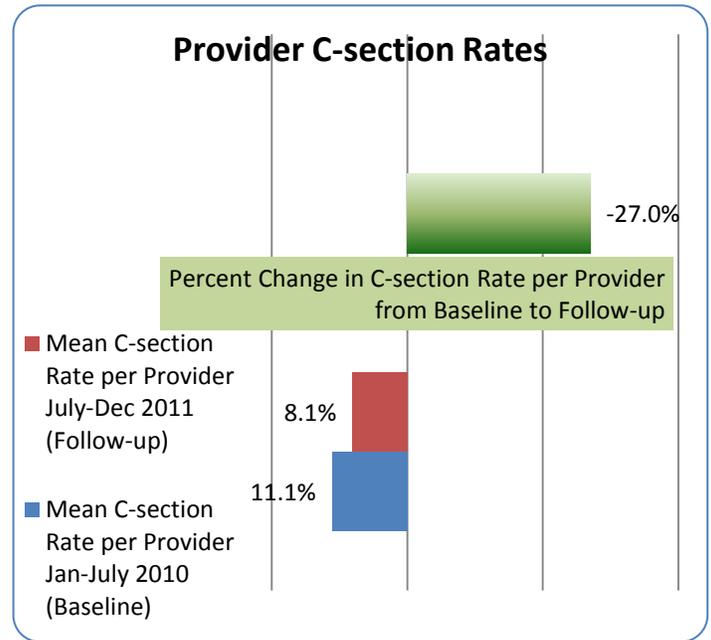
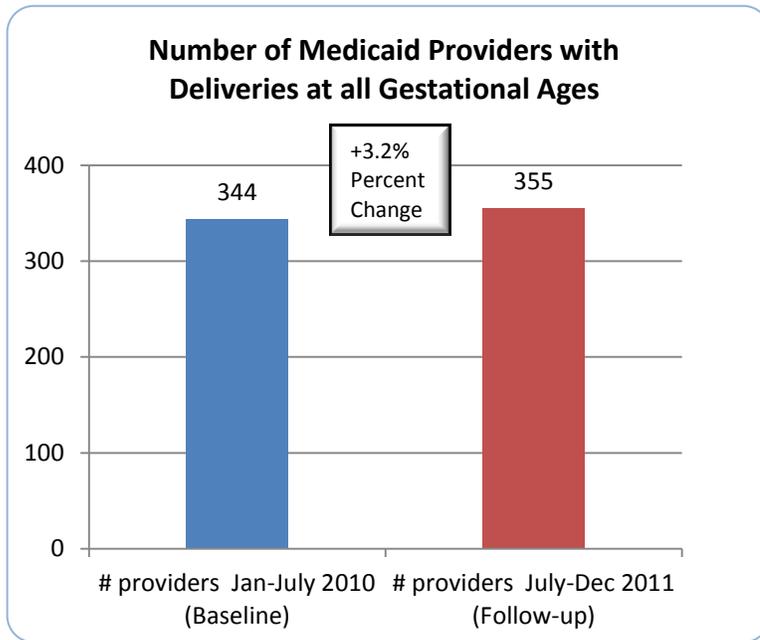


Table 2.0. Overall Provider C-section Rates

Statewide: Number of Providers with Deliveries	Number & Rate	% Change
# Providers Jan-July 2010 (Baseline)	344	+3.2%
# Providers July-Dec 2011 (Follow-up)	355	
Average Provider C-section Rates		
Mean (\pm Std. Dev.) Provider C-section Rate Jan-July 2010 (Baseline)	11.1% (± 16.1)	-27.0%
Mean (\pm Std. Dev.) Provider C-section Rate July-Dec 2011 (Follow-up)	8.1%*** (± 9.8)	

***p < .01 t-test

3.0. *Portions of Not Medically Indicated C-sections Declined in the State as a Whole.*

As mentioned above, there was a reduction in the number of C-sections performed between 37 and 39 weeks. Among those C-sections performed that were not medically indicated, there was nearly a 40% reduction in the number performed from the baseline to the follow-up period, 547 and 333, respectively. The portion of C-sections performed that were not indicated medically out of all C-sections performed at baseline was 25.6%; at follow-up this portion declined to 18.9%. This rate change observed from baseline to follow-up represents a 26.2% reduction once the intervention was implemented statewide. See Table 3.0.

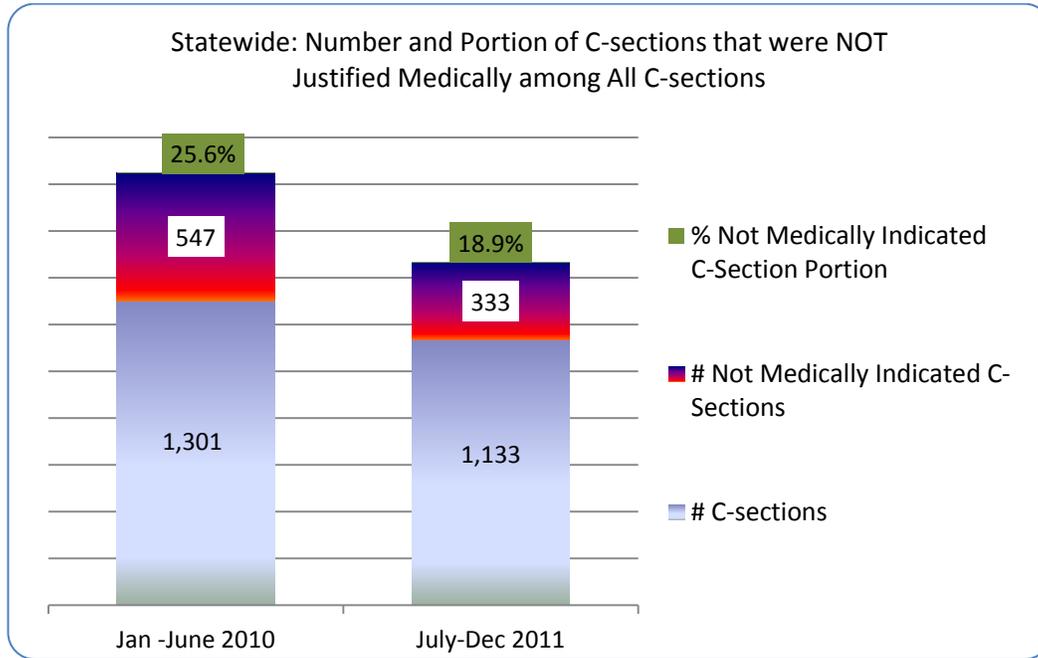


Table 3.0. Number of all C-sections performed between 37 and 39 weeks, Number and portion of C-sections NOT medically indicated.

C-sections Not Medically Justified	Jan-June 2010	July-Dec 2011	% Change
# All C-sections ≥ 37 & < 39 weeks	1,301	1,133	-12.9%
# Not Medically Indicated C-sections	547	333	-39.1%
% Not Medically Indicated C-sections	25.6%	18.9%	-26.2%

4.0. Average Portion of C-sections Not Medically Indicated per Participating Provider Also Declined.

The number of providers performing C-sections between 37 and 39 weeks declined from January to July 2010 to the follow-up period from 269 to 258. The average portion of C-sections which were not medically indicated declined by 8.7% (27.8% to 19.1%). This represents a percent change of 31.3% from baseline to the follow-up period in 2011. This average per provider portion reduction was statistically significant at the .05 level according to the t-test analysis. See Table 4.0.

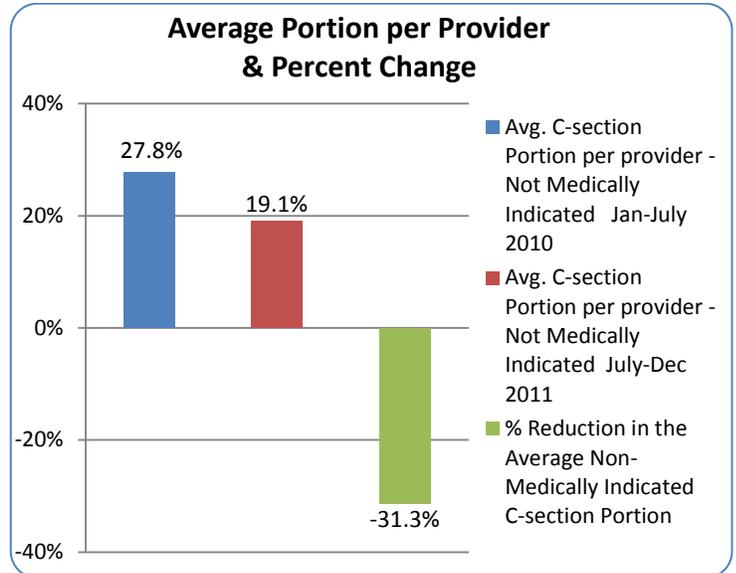
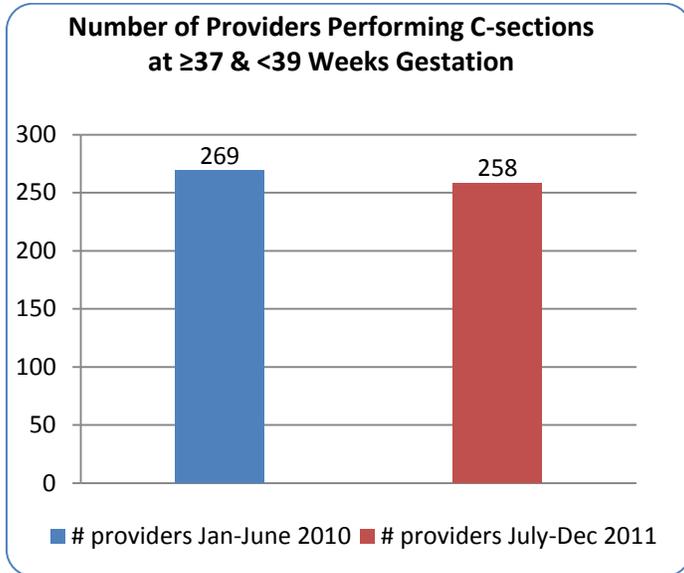


Table 4.0. Number of Providers Performing C-sections between 37 and 39 Weeks Gestation and Average Portion of C-sections per provider that were not Medically Indicated

Number of Providers Performing C-sections		% Change
# Providers Jan-June 2010	269	-4.1%
# Providers July-Dec 2011	258	
Average Portion per Provider		
Mean (±Std. Dev.) per Provider Not Medically Indicated C-section Portion Jan-July 2010	27.8% (±34.5)	-31.3%
Mean (±Std. Dev.) per Provider Not Medically Indicated C-section Portion July-Dec 2011	19.1%** (±29.9)	

**p < .05 t-test

5.0. Providers Who Had Higher Than The Median Rate Of C-sections In The Initial Period Were More Likely To Reduce Their C-section Rates, Compared To Providers With Relatively Low Rates Initially, Statewide.

Using the statewide median rate of 7.3% of C-sections performed per provider from January to June of 2010, rates for the follow-up period indicate that those providers (76.2%) still participating who were above the state median at baseline lowered their C-section rates significantly. See Table 5.0.

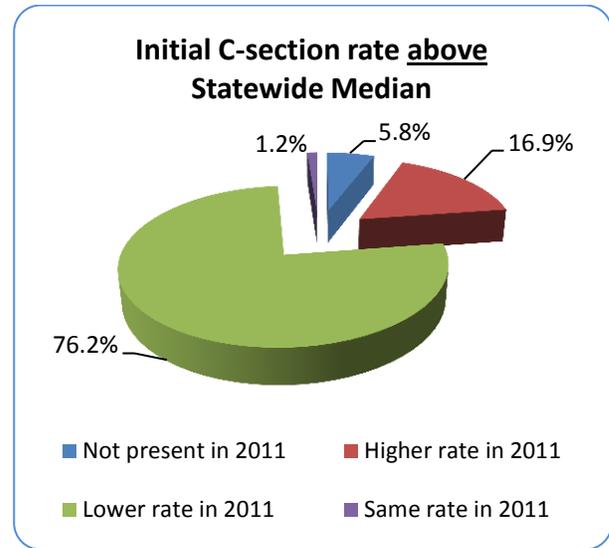
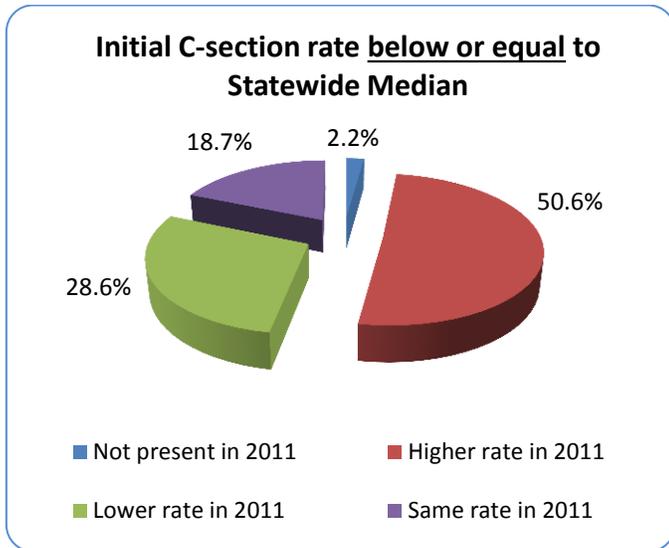


Table 5.0. Provider C-section Rate Classification Based on the Statewide Median Rate

Provider C-section Rate Change from Jan-June 2010 to July-Dec 2011 (excludes providers only present in 2011)		
Statewide Median rate=7.3%	Initial C-section rate <u>below or equal</u> to statewide Median	Initial C-section rate <u>above</u> statewide Median
# of providers (includes those with no C-sections)	182	172
Proportions across median cut-point	Initial C-section rate <u>below or equal</u> to statewide Median	Initial C-section rate <u>above</u> statewide Median****
% Not present in 2011	2.2%	5.8%
% Higher rate in 2011	50.6%	16.9%
% Lower rate in 2011	28.6%	76.2%
% Same rate in 2011	18.7%	1.2%

**** p < .0001 chi square test for observed vs. expected distribution within cells

6.0. *Providers Who Had Higher Than The Median Portion Of Not Medically Indicated C-sections In The Initial Period Were More Likely To Reduce Their Not Medically Indicated C-section Portions, Compared To Providers With Relatively Low Rates Initially, Statewide.*

Among providers who performed C-sections between 37 and 39 weeks that were not medically indicated, there were 134 providers whose portion was below or equal to the baseline statewide median portion of 13.3% and 135 whose procedure portion was above the initial median. Looking at changes in procedure portions from the baseline to follow-up period, portions for almost one-half (47.8%) of those initially below the median stayed the same in 2011. One-quarter of the providers' portions decreased in 2011 and another 22% increased. Among providers whose baseline C-section portion for non-medically indicated procedures was above the statewide median, almost 75% lowered their portions in 2011. The change among these providers from baseline to follow-up was statistically significant based on a chi square test. An equal proportion of providers in each cut-point group were excluded because they were no longer present in the study sample at that time.

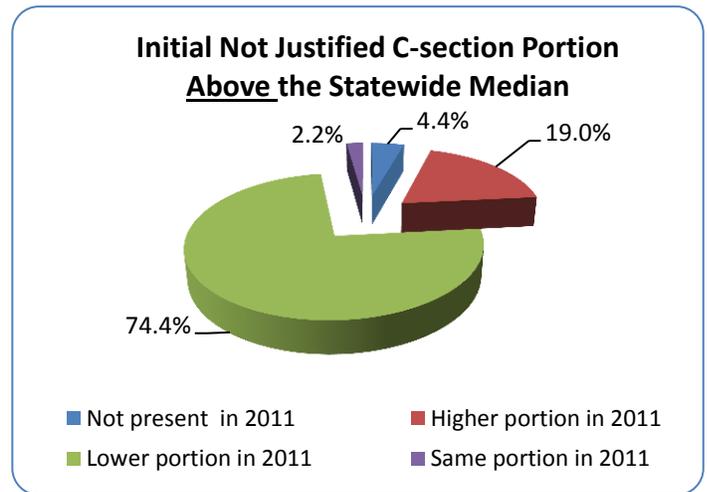
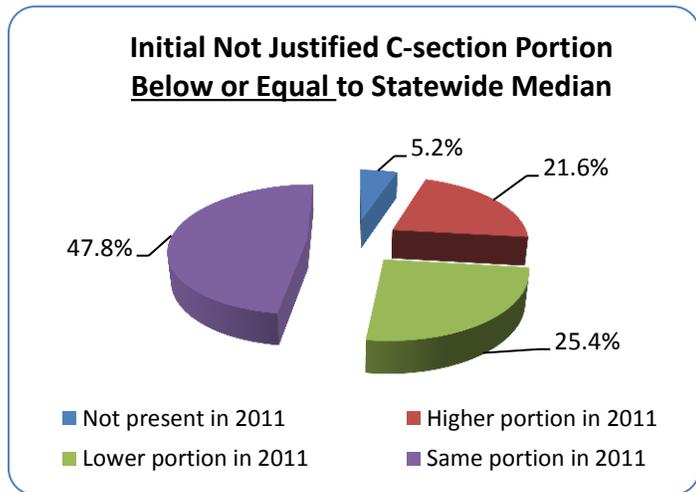


Table 6.0. Per Provider C-section Portions Based on the Statewide Median – Not Medically Indicated Procedures

Provider Not Medically Indicated C-section Portions (excludes providers only present in 2011)		
Median portion=13.3%	Initial not medically indicated C-section portion <u>below or equal to</u> statewide Median	Initial not medically indicated C-section portion <u>above</u> statewide Median
# of providers	134	135
Not present in 2011	5.2%	4.4%
Higher portion in 2011	21.6%	19.0%
Lower portion in 2011	25.4%	74.4%
Same Portion in 2011	47.8%	2.2%

*** p < .001 chi square test

District findings:

District 1

Section 1.1. Overall Deliveries, Total C-sections and Rates by District

In District 1, Medicaid providers performed 630 deliveries from January to June 2010 and 637 deliveries from July to December 2011. Among all deliveries, there were 86 (13.6%) C-sections performed in the baseline period and 67 (10.5%) during the follow-up period. The Maternity Care Program Performance Improvement Project (PIP) was implemented among Medicaid providers to eliminate non-medically indicated Cesarean deliveries between 37 and 39 weeks gestational age in the Alabama Medicaid Population during the follow-up period January to June 2011. There was a slight increase (1.1%) in the total number of deliveries in District 1. In the follow-up period, there was a large reduction (22.1%) in the overall number of C-sections performed and a 22.8% reduction in the rate of C-sections between 37 and 39 weeks gestation among all births among the Medicaid Maternity population in District 1. See Table 1.1.

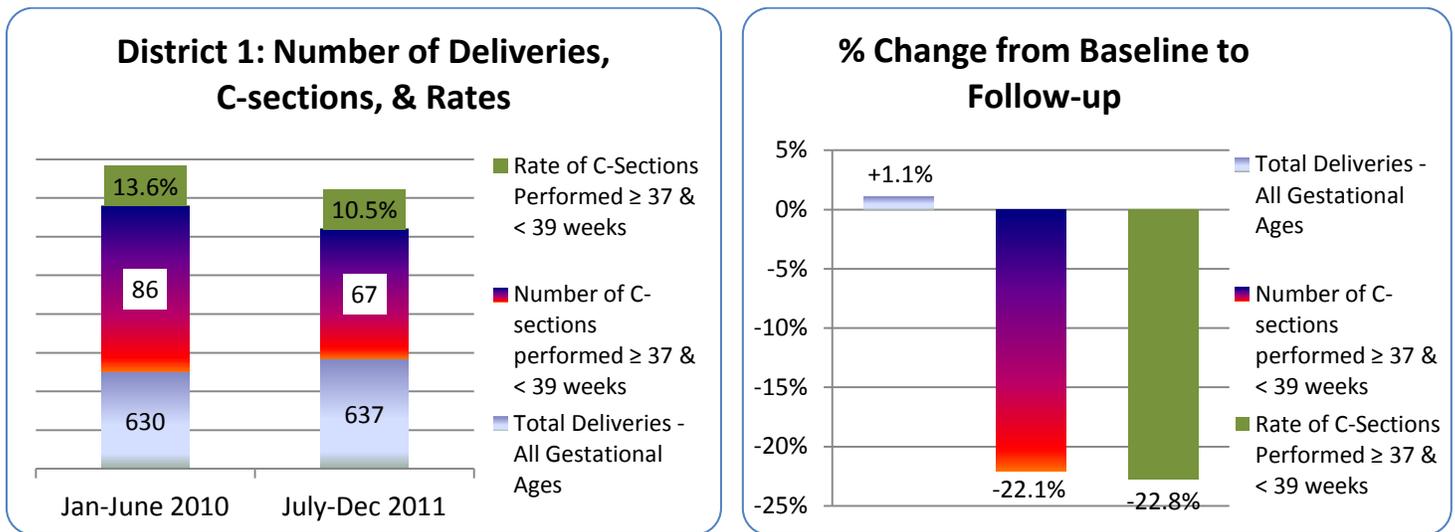


Table 1.1. Overall Deliveries, Total C-sections and C-section Rates for District 1

District 1	Jan-June 2010	July-Dec 2011	% Change
Total Deliveries	630	637	+1.1%
C-sections	86	67	-22.1%
C-section Rate	13.6%	10.5%	-22.8%

2.1. Average C-section Rates For Participating Providers Also Declined In District 1.

In District 1 there was a slight increase in the number of providers who performed deliveries at any gestational age from the baseline to the follow-up period. Among the 15 Medicaid maternity providers in the baseline period, there was an average C-section rate of 16.5% (Std. Dev. $\pm 24.3\%$) per provider. Once the Maternity Improvement Program was implemented within District 1, the average C-section rate per provider dropped to 6.0% (Std. Dev. $\pm 6.4\%$) among all deliveries. This represents a 63.6% reduction in the C-section rate per provider from baseline to follow-up. See Table 2.1.

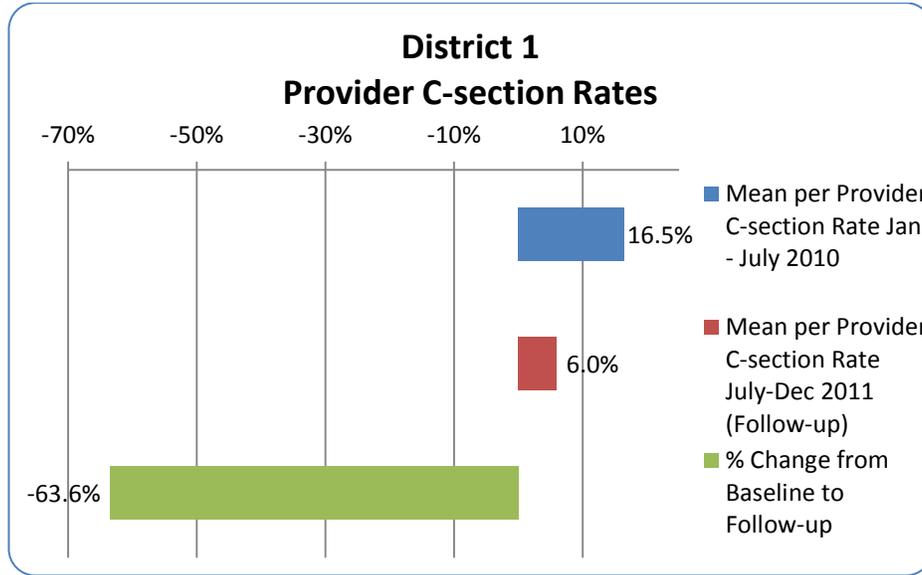


Table 2.1. Provider C-section Rates for District 1

District 1: Number of Providers Performing C-sections	Number & Rate	% Change
# Providers Jan-July 2010 (Baseline)	15	+6.7%
# Providers July-Dec 2011 (Follow-up)	16	
Provider C-section Rates		
Mean (\pm Std. Dev.) per Provider C-section Rate Jan-July 2010 (Baseline)	16.5% (± 24.3)	-63.6%
Mean (\pm Std. Dev.) per Provider C-section Rate July-Dec 2011 (Follow-up)	6.0% (± 6.4)	

3.1. Portion of Not Medically Indicated C-sections Declined in the District 1.

As mentioned above, there was a 22% reduction in C-sections performed between 37 and 39 weeks in District 1 once the program was implemented. However, the portion of these C-sections which were not medically indicated remained stable between the baseline and the follow-up period. See Table 3.1.

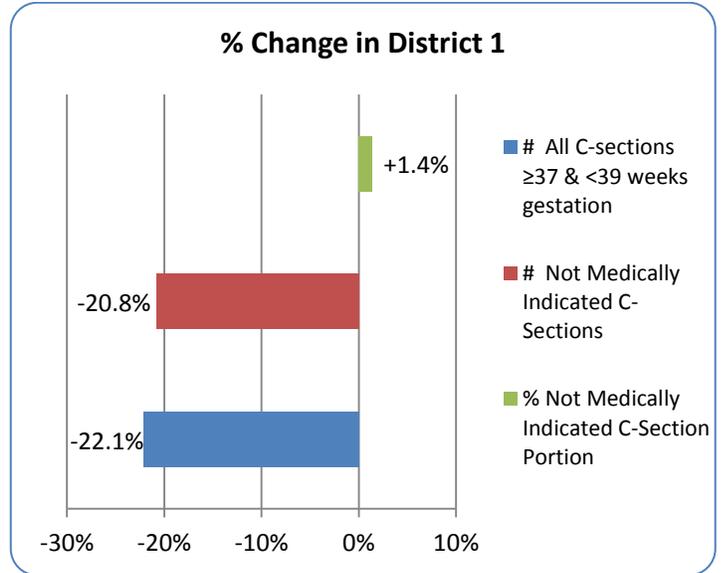
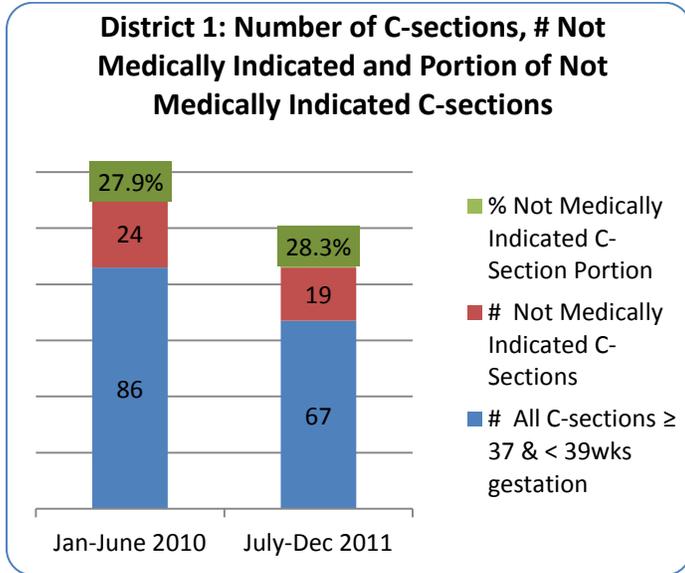


Table 3.1. Number of all C-sections performed between 37 and 39 weeks, Number and portion of C-sections NOT medically indicated in District 1.

C-sections Not Medically Justified	Jan-June 2010	July-Dec 2011	% Change
# All C-sections at ≥37 & <39 weeks gestation	86	67	-22.1%
# Not Medically Indicated C-sections	24	19	-20.8%
% Not Medically Indicated C-sections	27.9%	28.3%	+1.4%

4.1. Average Portion of C-sections Not Medically Indicated per Participating Provider Declined in District 1.

In District 1 the number of providers performing C-sections between 37 and 39 weeks that were not medically indicated declined from the baseline, January to July 2010, to the follow-up period, July to December 2011, by 25%, 12 to 9, respectively. The per provider C-section rate of unjustified procedures declined from a rate of 25.1% to 14.8% which represents a percent change of 41% from baseline in 2010 to the follow-up period in 2011. See Table 4.1. Note that the overall portion of not medically indicated C-sections did not change in the District, even though the average rate per provider declined, because the rate of these C-sections remained high for the participating providers with the most deliveries.

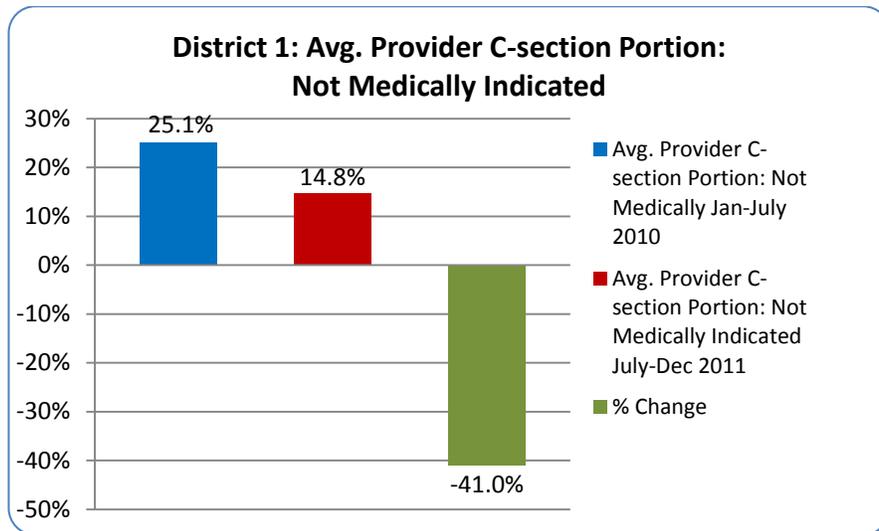


Table 4.1. Number of Providers Performing C-sections between 37 and 39 weeks and Average Portion of C-sections per provider that were not Medically Indicated

Number of Providers Performing C-sections		% Change
# Providers Jan-June 2010	12	-25.0%
# Providers July-Dec 2011	9	
Average Portion per Provider		
Mean (\pm Std. Dev.) per Provider Not Medically Indicated C-section Portion Jan-July 2010	25.1% (\pm 29.3)	-41.0%
Mean (\pm Std. Dev.) per Provider Not Medically Indicated C-section Portion July-Dec 2011	14.8% (\pm 19.0)	
% Difference in the Average Non-Medically Indicated C-section portion	-10.3%	

5.1. *Providers Who Had Higher Than The Median Rate Of C-sections In The Initial Period Were More Likely To Reduce Their C-section Rates, Compared To Providers With Relatively Low Rates Initially, for District 1.*

In District 1, 6 of 16 providers performed C-sections at a procedure rate below or equal to the statewide median of 7.3%. As in the statewide data, one-half of providers were more likely to maintain the same low C-section rate in 2011, whereas one-third had a higher procedure rate during the follow-up period. Among the remainder of the providers, those whose C-section rates were above the statewide median in 2010, half lowered their rates in 2011, but another 30% increased their rates during the follow-up period. Almost seventeen percent of providers with rates below the median and twenty percent of the providers whose baseline rates were above the median were not represented in the data for the follow-up period. See Table 5.1.

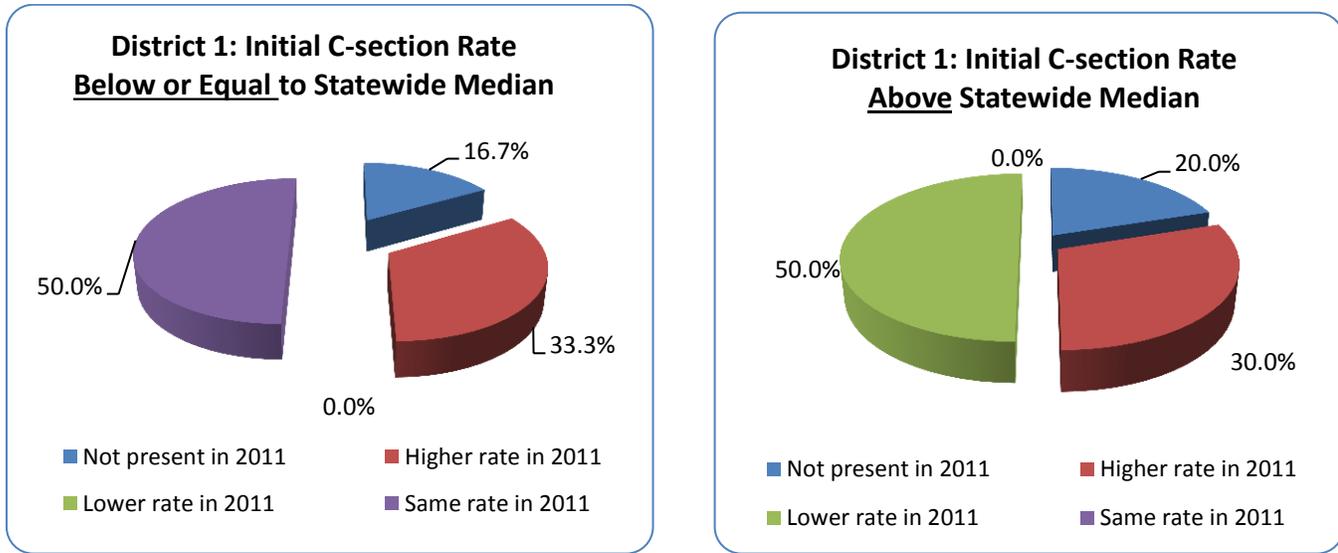


Table 5.1.

Provider C-section Rate Change from Jan-June 2010 to July-Dec 2011 In Relation to the Median (excludes providers only present in 2011)		
Statewide Median Rate=7.3%	Initial C-section rate <u>below or equal</u> to statewide Median	Initial C-section rate <u>above</u> statewide Median
# of providers	6	10
Not present in 2011	16.7%	20.0%
Higher portion in 2011	33.3%	30.0%
Lower portion in 2011	0.0%	50.0%
Same portion in 2011	50.0%	0.0%

6.1 In District 1, Providers Who Had Higher Than The Median Portion Of Not Medically Indicated C-sections In The Initial Period Did Not Show a Trend Towards Lower Rates in the Follow-up Period, But Nearly One-Third Stopped Providing Services During the Follow-Up Period.

In District 1 providers (60%) who performed C-sections that were not justified who had a procedure portion below or equal to the statewide median of 13.3% were more likely to preserve their low portion than to increase (0.0%) or lower (20.0%) it during the follow-up period in 2011. Those that initially had unjustified C-section portions above the statewide median showed an equal likelihood (28.6) to lower or raise them in 2011. Nearly 30% of the providers whose baseline portions were above the median were not represented in the data for follow-up as was also the case for 20% of providers whose portions were below the statewide median. See Table 6.1.

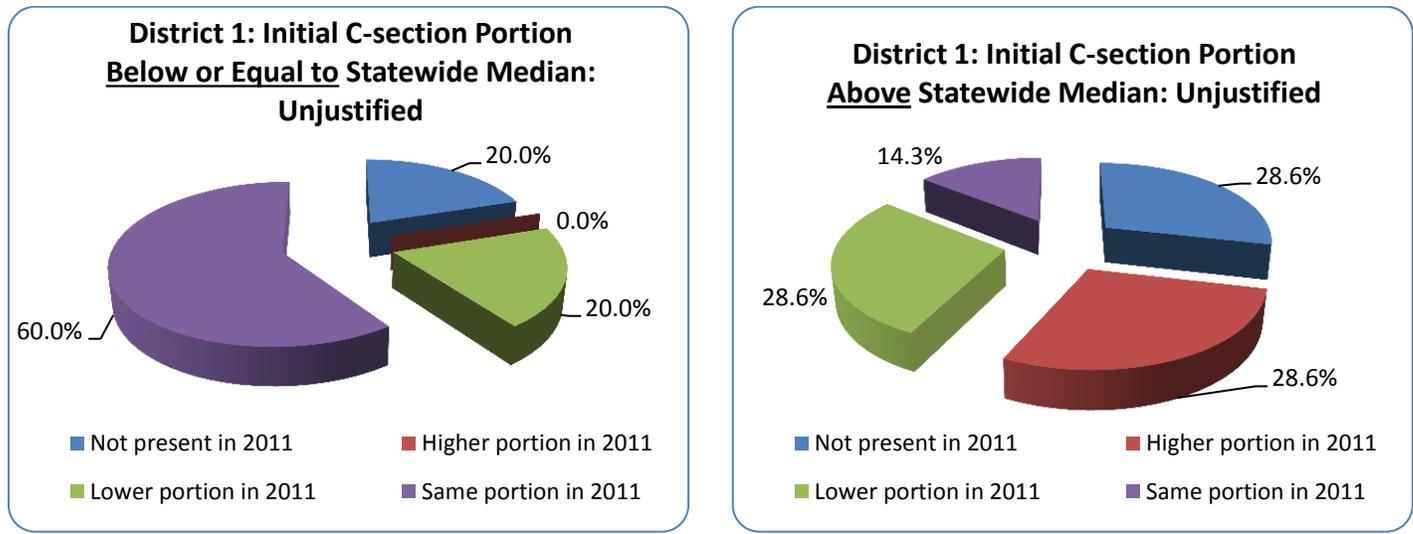


Table 6.1. Provider Portions for C-sections Not Medically Indicated according to the statewide Median (excludes providers only present in 2011)

Provider Not Medically Indicated C-section Portion Change from Jan-June 2010 to July-Dec 2011 (excludes providers only present in 2011)		
Median portion=13.3%	Initial not medically indicated C-section portion <u>below or equal</u> to statewide Median	Initial not medically indicated C-section portion <u>above</u> statewide Median
# of providers	5	7
Not present in 2011	20.0%	28.6%
Higher portion in 2011	0.0%	28.6%
Lower portion in 2011	20.0%	28.6%
Same portion in 2011	60.0%	14.3%

Summary of Findings for District 1

There was a marked overall decline in the C-section rate among women at 37-39 weeks gestation after the PIP intervention. There was also a decline in the average provider C-section rate and the average portion of each provider’s C-sections that were not medically indicated. One third of the providers who had high portions of not medically justified C-sections stopped providing services in 2011. However, overall, the same portion of C-sections that was not medically justified is reflected in 2011 as in 2010 before the PIP program began. This appears to be because the highest volume providers had relatively high portions of this type of C-section and did not reduce their portions in the follow-up period. And, in fact, there were several key changes in the medical landscape within District 1 with one hospital delivery unit and another OBGYN practice closing causing several providers to relocate.

District 2

Section 1.2. Total C-section Rates by District

In District 2, Medicaid providers performed 1,683 deliveries from January to June 2010 and 1,904 deliveries from July to December 2011. Among all deliveries, there were 204 (12.1%) C-sections performed in the baseline period and 209 (11.0%) during the follow-up period. There was a moderate increase in the total number of deliveries in District 2 which represents a 13.1% change from the baseline. In the follow-up period, there was a slight increase in the overall number of C-sections performed and a small reduction in the rate of C-sections between 37 and 39 weeks gestation among all births among the Medicaid Maternity population in District 2. See Table 1.2.

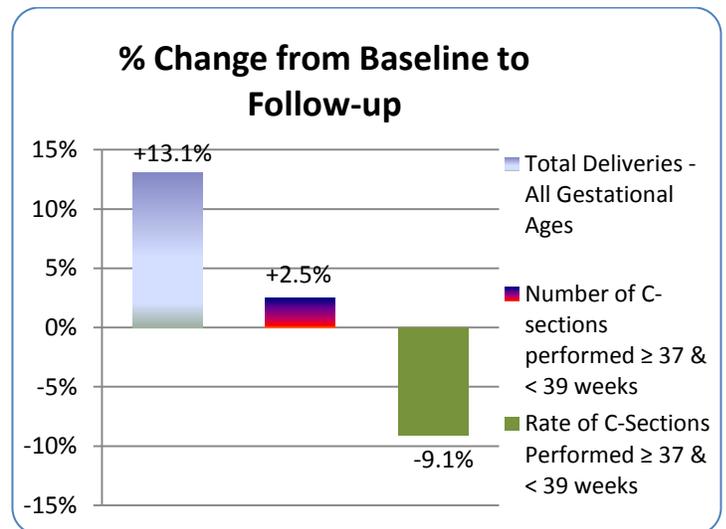
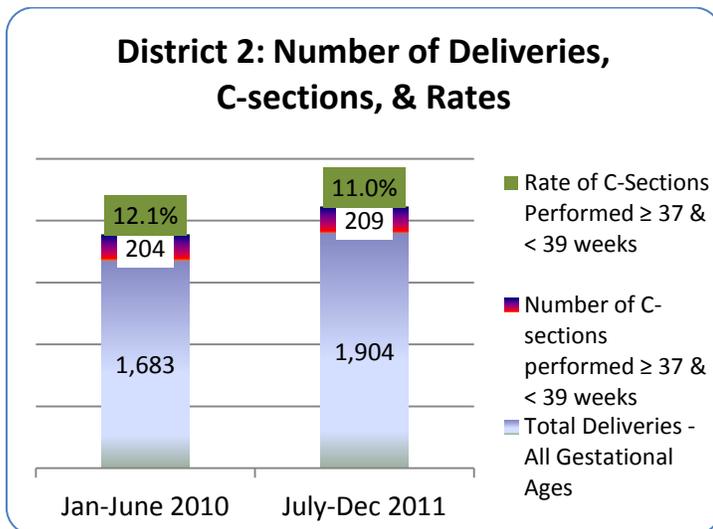


Table 1.2. Overall Total C-section Rates for District 2

District 2	Jan-June 2010	July-Dec 2011	% Change
Total Deliveries	1,683	1,904	+13.1%
C-sections	204	209	+2.5%
C-section Rate	12.1%	11.0%	-9.1%

2.2. Average C-section Rates For Participating Providers Also Declined in District 2.

In District 2 the number of providers with deliveries at all gestational ages from the baseline to the follow-up period remained relatively stable, 51 and 55, respectively. Among the 51 Medicaid maternity providers in the baseline period, there was an average C-section rate of 11.4% (Std. Dev. $\pm 9.6\%$) per provider. Once the Maternity Improvement Program was implemented within District 2, the average C-section rate per provider dropped to 8.4% (Std. Dev. $\pm 7.7\%$) among all deliveries. This represents a -26.3% change in the C-section rate per provider from baseline to follow-up. See Table 2.2.

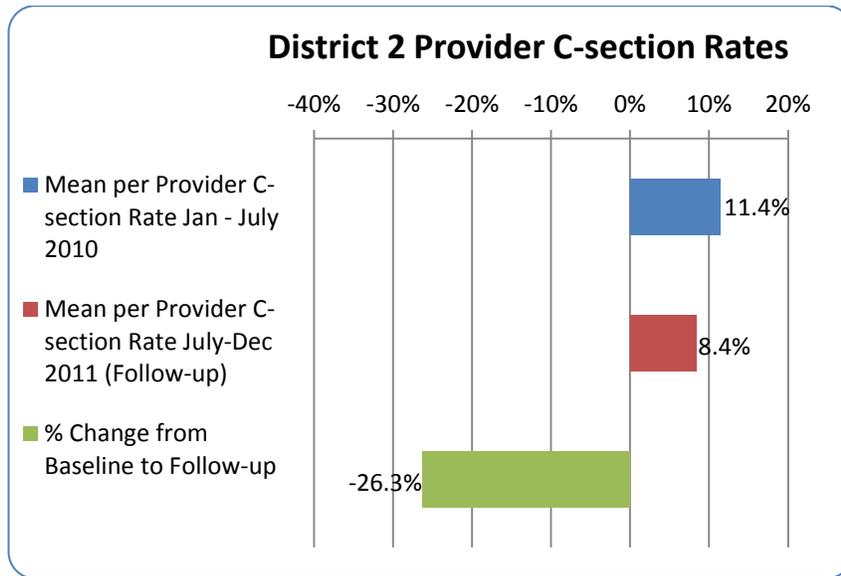


Table 2.2. Provider C-section Rates for District 2

District 2: Number of Providers with Deliveries at all Gestational Ages	Number & Rate	% Change
# Providers Jan-July 2010 (Baseline)	51	+7.8%
# Providers July-Dec 2011 (Follow-up)	55	
Provider C-section Rates		
Mean (\pm Std. Dev.) per Provider C-section Rate Jan-July 2010 (Baseline)	11.4% (± 9.6)	-26.3%
Mean (\pm Std. Dev.) per Provider C-section Rate July-Dec 2011 (Follow-up)	8.4%* (± 7.7)	

* p < .10 t-test

3.2. Portions of Not Medically Indicated C-sections Declined in the District 2.

As mentioned above, there was a small increase in C-sections performed between 37 and 39 weeks in District 2 once the program was implemented. The Maternity Care Program Performance Improvement Project (PIP) was implemented among Medicaid providers to eliminate non-medically indicated Cesarean deliveries between 37 and 39 weeks gestational age in the Alabama Medicaid Population during the follow-up period, January to June 2011. Among those C-sections performed that were not medically indicated between 37 and 39 weeks, there was a slight reduction from the baseline to the follow-up period, 76 and 75 procedures, respectively. The portion of C-sections performed that were not indicated medically at baseline was 37.2% and at follow-up declined to 35.9%. This portion change observed from baseline to follow-up represents a -3.5% percent change in C-sections that were not justified medically once the intervention was implemented in District 2. See Table 3.2.

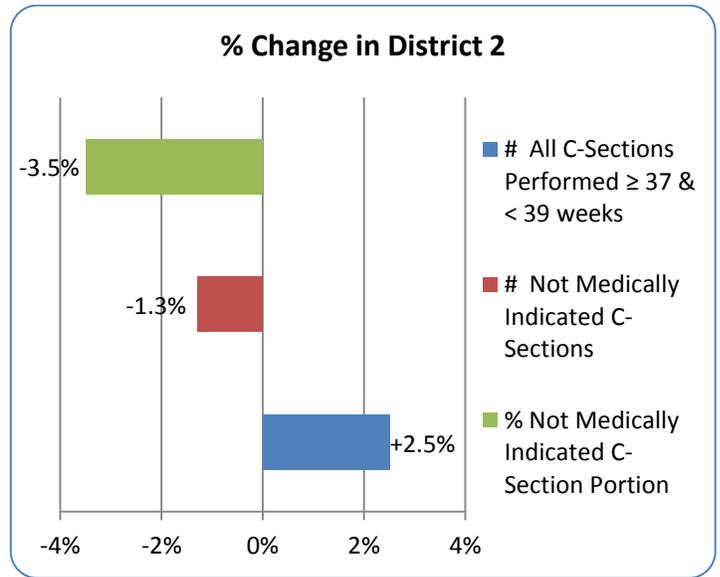
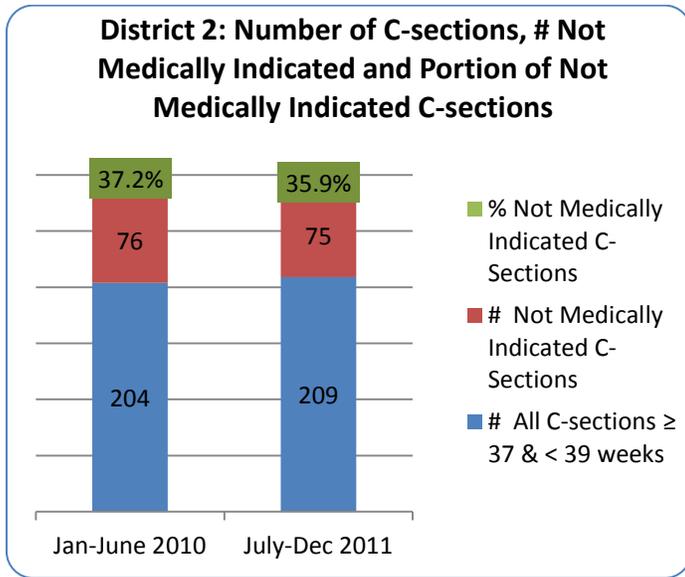


Table 3.2. Number of all C-sections performed between 37 and 39 weeks, Number and portion of C-sections NOT medically indicated in District 2.

C-sections Not Medically Justified	Jan-June 2010	July-Dec 2011	% Change
# All C-sections ≥ 37 & < 39 weeks	204	209	+2.5%
# Not Medically Indicated C-sections	76	75	-1.3%
% Not Medically Indicated C-sections	37.2%	35.9%	-3.5%

4.2. Average Portion of C-sections Not Medically Indicated per Participating Provider Declined in District 2.

In District 2 the number of providers performing C-sections between 37 and 39 weeks that were not medically indicated remained the same from the baseline, January to July 2010, to the follow-up period, July to December 2011. The per provider portion of unjustified procedures declined moderately from a rate of 33.9% to 30.3% which represents a percent change of -10.6% from baseline in 2010 to the follow-up period in 2011. See Table 4.2.

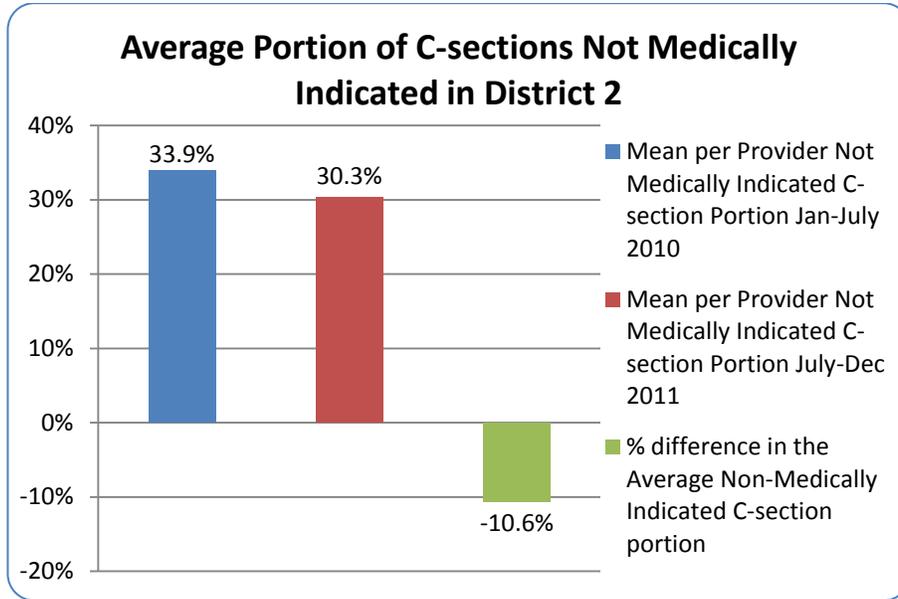


Table 4.2. Number of Providers Performing C-sections between 37 and 39 weeks gestation and Average Portion of C-sections per provider that were not Medically Indicated

Number of Providers Performing C-sections		% Change
# Providers Jan-June 2010	39	0.0%
# Providers July-Dec 2011	39	
Average Portion per Provider		
Mean (\pm Std. Dev.) per Provider Not Medically Indicated C-section Portion Jan-July 2010	33.9% (\pm 30.4)	-10.6%
Mean (\pm Std. Dev.) per Provider Not Medically Indicated C-section Portion July-Dec 2011	30.3% (\pm 20.8)	
% difference in the Average Non-Medically Indicated C-section Portion	-3.6%	

5.2. Providers Who Had Higher Than The Median Rate Of C-sections In The Initial Period Were More Likely To Reduce Their C-section Rates, Compared To Providers With Relatively Low Rates Initially for District 2.

In District 2 providers (40.9%) who performed C-sections and had a procedure rate below or equal to the statewide median of 7.3% were more likely to have a higher rate during the follow-up period in 2011; however, nearly one-third (31.8%) of providers within this below-median group maintained the same low C-section rate in 2011, and, 27% further lowered their rates in 2011. Almost three-quarters (73.3%) of providers that initially had C-section rates above the statewide median lowered their rates in 2011. See Table 5.2.

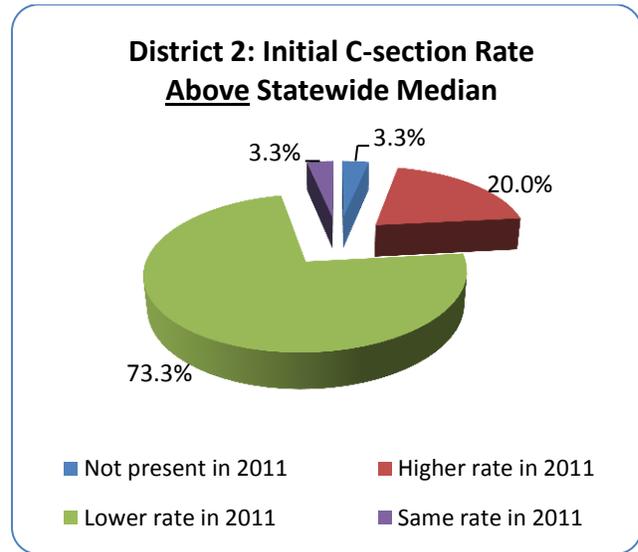
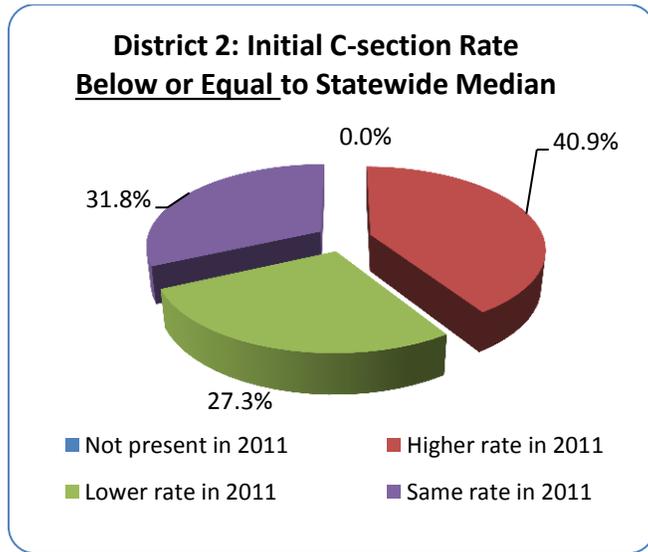


Table 5.2. Provider C-section Rate Change from Jan-June 2010 to July-Dec 2011 In Relation to the Median (excludes providers only present in 2011)

Provider C-section Rate Change from Jan-June 2010 to July-Dec 2011 In Relation to the Median (excludes providers only present in 2011)		
Statewide Median Rate=7.3%	Initial C-section rate <u>below or equal</u> to statewide Median	Initial C-section rate <u>above</u> statewide Median
# of providers	22	30
Not present in 2011	0.0%	3.3%
Higher portion in 2011	40.9%	20.0%
Lower portion in 2011	27.3%	73.3%
Same portion in 2011	31.8%	3.3%

6.2. *There was No Difference In the Change In Not Medically Indicated C-section Portions Before and After the PIP Intervention Between Providers with Initially High Rates and Providers with Initially Low Rates.*

In District 2 more than one-half (59.4%) of providers who had a not-justified procedure portion below or equal to the statewide median of 13.3% decreased the portion during the follow-up period in 2011. Among the remaining providers in this median cut-point group more than one-third (34.4%) increased their rates in 2011. Among those physicians that initially had unjustified C-section portions above the statewide median a majority (60.7%) decreased their rates in 2011. More than one-third, however showed an even higher portion of C-sections that were not justified in the follow-up period. See Table 6.2.

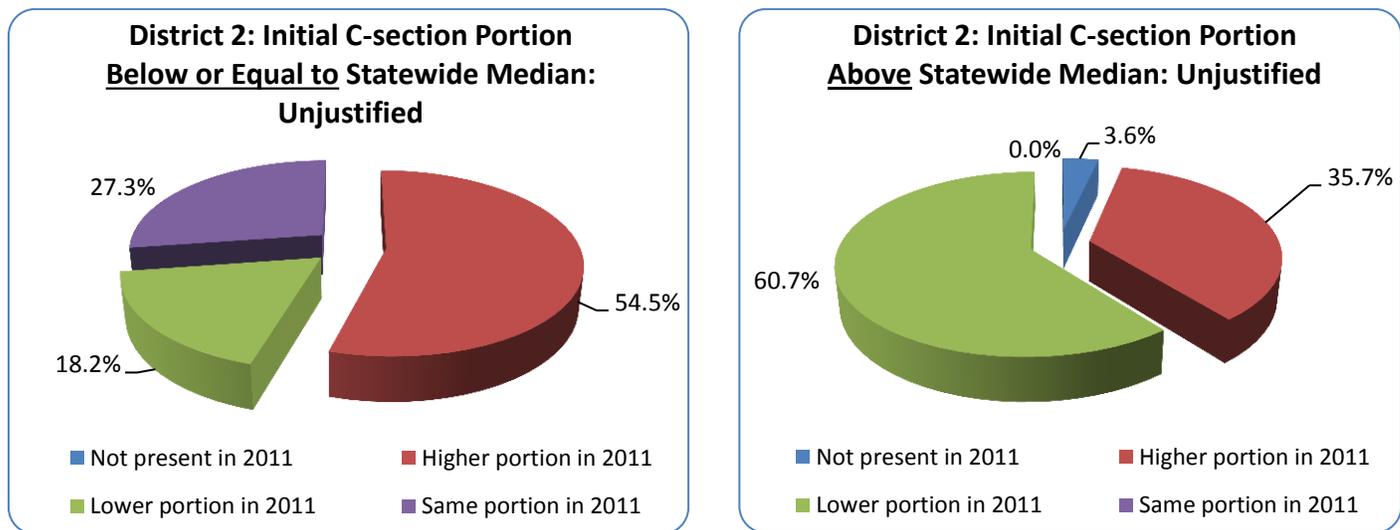


Table 6.2. Provider Portions for C-sections Not Medically Indicated according to the statewide Median (excludes providers only present in 2011)

Provider Not Medically Indicated C-section Portion Change from Jan-June 2010 to July-Dec 2011 (excludes providers only present in 2011)		
Median portion=13.3%	Initial not medically indicated C-section portion <u>below or equal</u> to statewide Median	Initial not medically indicated C-section portion <u>above</u> statewide Median
# of providers	11	28
Not present in 2011	0.0%	3.6%
Higher portion in 2011	54.5%	35.7%
Lower portion in 2011	18.2%	60.7%
Same portion in 2011	27.3%	0.0%

Summary of Findings for District 2

Overall C-section rates and average provider C-section rates declined between 2010 and 2011, after the PIP intervention. The portion of C-sections classified as “not medically justified” did not change markedly. Intervention notes indicate that among a group practice in Madison County there was considerable disapproval of the promotional materials used for the improvement project in addition to customary delivery practices among district providers for ‘repeat, elective cesarean deliveries’ between 37 and 39 weeks.

District 3

Section 1.3. Total C-section Rates by District

In District 3, Medicaid providers performed 974 deliveries from January to June 2010 and 1,107 deliveries from July to December 2011. This increase in the total number of deliveries in District 3 represents a 13.7% change. Among the sizable number of deliveries, there were only 52 C-sections performed between 37 and 39 in the baseline period and 55 during the follow-up period. Once the program was implemented in the District in 2011 there was a small reduction in the rate of C-sections compared with the baseline rate in 2010, 5.3% and 5.0%, respectively. See Table 1.3.

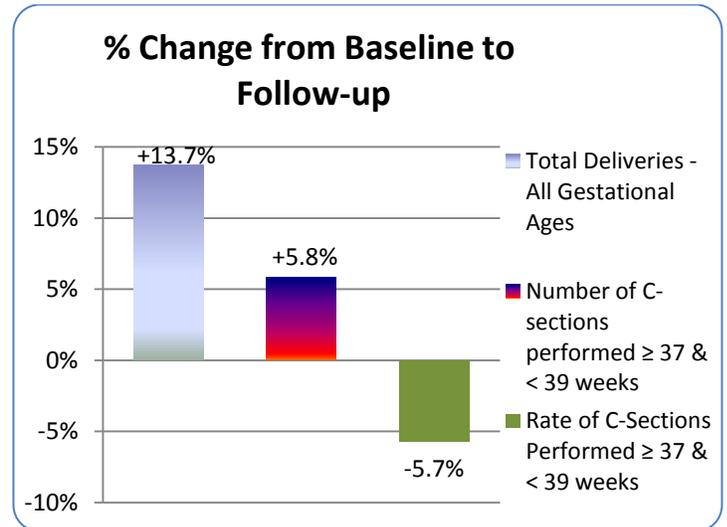
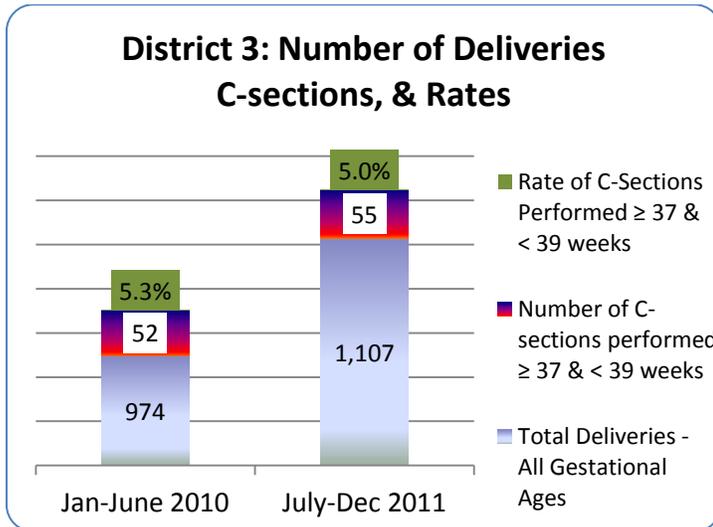


Table 1.3. Overall Deliveries, Total C-sections and C-section Rates for District 3

District 3	Jan-June 2010	July-Dec 2011	% Change
Total Deliveries	974	1,107	+13.7%
C-sections	52	55	+5.8%
C-section Rate	5.3%	5.0%	-5.7%

2.3. Average C-section Rates For Participating Providers Remained Unchanged in District 3.

In District 3 there was an increase in the number of providers with deliveries at all gestational ages from the baseline to the follow-up period that resulted in a 26.7% change. Among the 15 Medicaid maternity providers in the baseline period, there was an average C-section rate of 5.9% (Std. Dev. $\pm 3.5\%$) per provider. Once the Maternity Improvement Program was implemented within District 3, the average C-section rate per provider was also 5.9% (Std. Dev. $\pm 4.6\%$) among all deliveries. This represents a 0.0% change in the C-section rate per provider from baseline to follow-up. See Table 2.3.

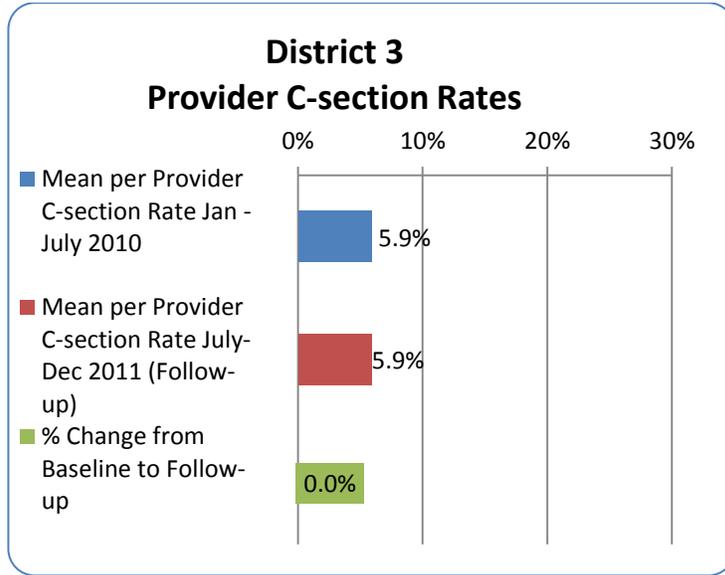


Table 2.3. Provider C-section Rates for District 3

District 3: Number of Providers with Deliveries	Number & Rate	% Change
# Providers Jan-July 2010 (Baseline)	15	+26.7%
# Providers July-Dec 2011 (Follow-up)	19	
Provider C-section Rates		
Mean (\pm Std. Dev.) per Provider C-section Rate Jan-July 2010 (Baseline)	5.9% (± 3.5)	0.0%
Mean (\pm Std. Dev.) per Provider C-section Rate July-Dec 2011 (Follow-up)	5.9% (± 4.6)	

3.3. Portions of Not Medically Indicated C-sections Declined in District 3.

As mentioned above, there was a 5.8% reduction in the number of C-sections performed between 37 and 39 weeks in District 3 once the program was implemented. Among those C-sections performed that were not medically indicated, there was a 51.9% reduction from the baseline to the follow-up period, from 27 to 13, respectively. The portion of C-sections performed that were not indicated medically at baseline was 51.9% and at follow-up the rate decreased to 23.6%. This rate change observed from baseline to follow-up represents a -54.5% change in C-sections that were not justified medically in District 3. See Table 3.3.

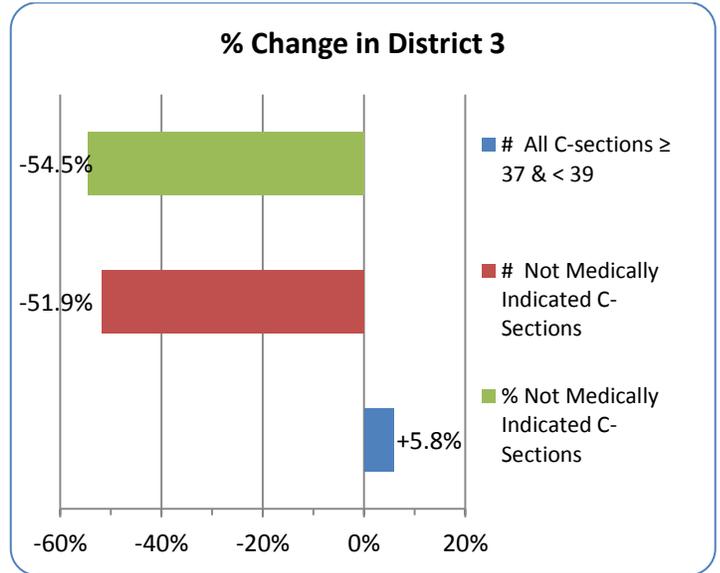
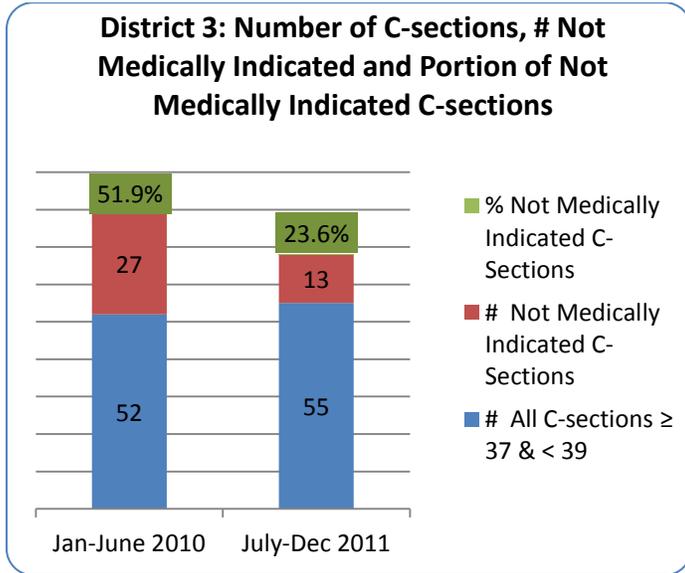


Table 3.3. Number of all C-sections performed between 37 and 39 weeks, Number and portion of C-sections NOT medically indicated in District 3.

C-sections Not Medically Justified	Jan-June 2010	July-Dec 2011	% Change
# All C-sections ≥ 37 & < 39 weeks	52	55	+5.8%
# Not Medically Indicated C-sections	27	13	-51.9%
% Not Medically Indicated C-sections	51.9%	23.6%	-54.5%

4.3. Average Portion of C-sections Not Medically Indicated per Participating Provider Declined in District 3.

In District 3 the number of providers performing C-sections between 37 and 39 weeks increased from the baseline, January to July 2010, to the follow-up period, July to December 2011, from 13 to 17, respectively. The per provider C-section rate of unjustified procedures declined from a rate of 62.1% to 26.2% which represents a percent change of -57.8% from baseline in 2010 to the follow-up period in 2011. The substantial reduction in the average portion was statistically significant. See Table 4.3.

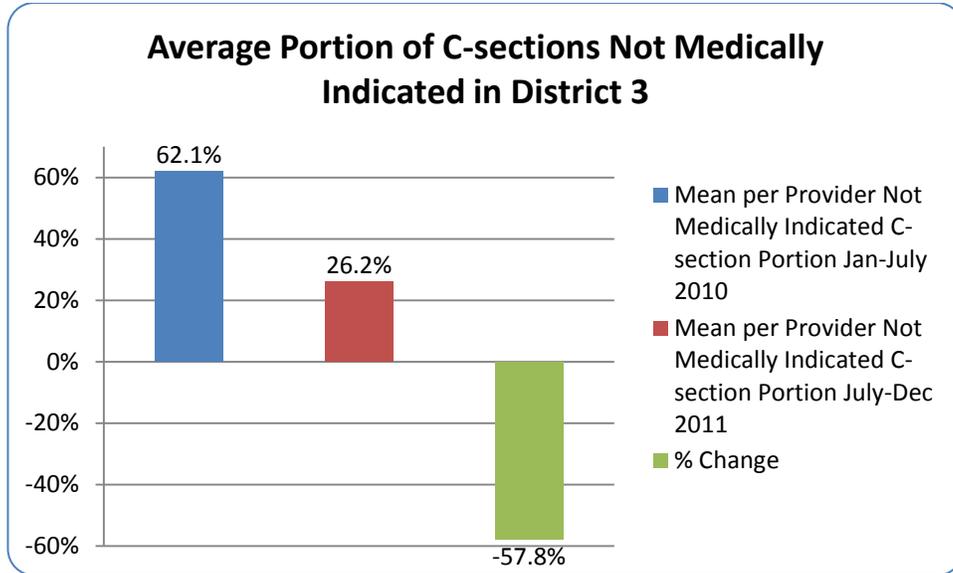


Table 4.3. Number of Providers Performing C-sections between 37 and 39 weeks Gestation and the Average Portion that were Not Medically Indicated

Number of Providers Performing C-sections		% Change
# Providers Jan-June 2010	13	+30.8%
# Providers July-Dec 2011	17	
Average Portion per Provider		
Mean (±Std. Dev.) per Provider Not Medically Indicated C-section Portion Jan-July 2010	62.1% (±30.1)	-57.8%
Mean (±Std. Dev.) per Provider Not Medically Indicated C-section Portion July-Dec 2011	26.2%*** (±34.3)	

*** p < .01 t-test

5.3. Providers Who Had Higher Than The Median Rate Of C-sections In The Initial Period Were Most Likely To Reduce Their C-section Rates, Compared To Providers With Relatively Low Rates Initial in District 3.

In District 3 providers who performed C-sections and had a procedure rate below or equal to the statewide median of 7.3% were more likely (64.3%) to have a higher rate during the follow-up period in 2011; however, more than one-third were able to lower their C-section rate in 2011. All (100.0%) providers that initially had C-section rates above the statewide median lowered their rates in 2011. See Table 5.3.

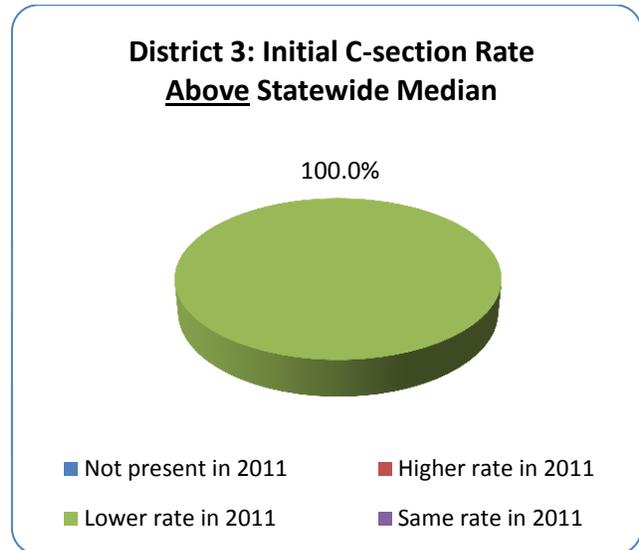
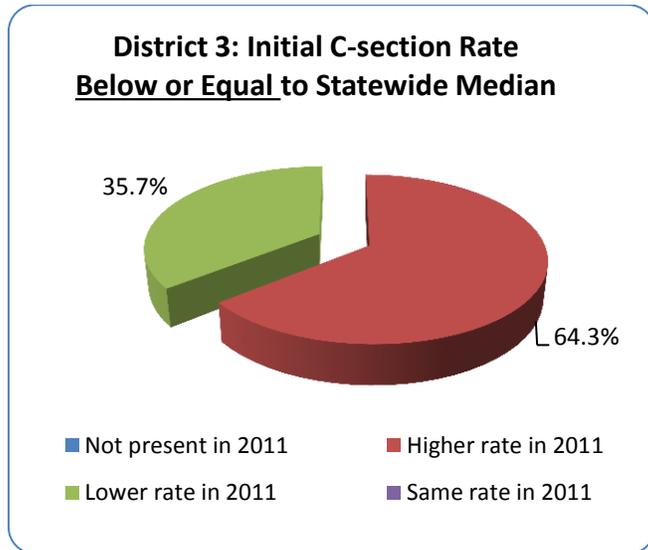


Table 5.3.

Provider C-section Rate Change from Jan-June 2010 to July-Dec 2011 In Relation to the Median (excludes providers only present in 2011)		
Statewide Median Rate=7.3%	Initial C-section rate <u>below or equal</u> to statewide Median	Initial C-section rate <u>above</u> statewide Median
# of providers	14	6
Not present in 2011	0.0%	0.0%
Higher rate in 2011	64.3%	0.0%
Lower rate in 2011	35.7%	100.0%
Same rate in 2011	0.0%	0.0%

6.3. Providers Who Had Higher Than The Median Portion Of Not Medically Indicated C-sections in the Initial Period Were More Likely to Reduce Their Not Medically Indicated C-section Portions, Compared To Providers With Relatively Low Portions Initially, in District 3.

In District 3 the one provider (100.0%) who performed C-sections that were not justified and had a procedure portion below or equal to the statewide median of 13.3% maintained the same level of portions for these procedures during the follow-up period in 2011. A large majority (83.3%) that initially had unjustified C-section portions above the statewide median lowered their portions in 2011. A relatively small proportion (16.7%) of the providers whose baseline portions were above the median had even higher portions of C-sections that were not medically justified during the intervention period. See Table 6.3.

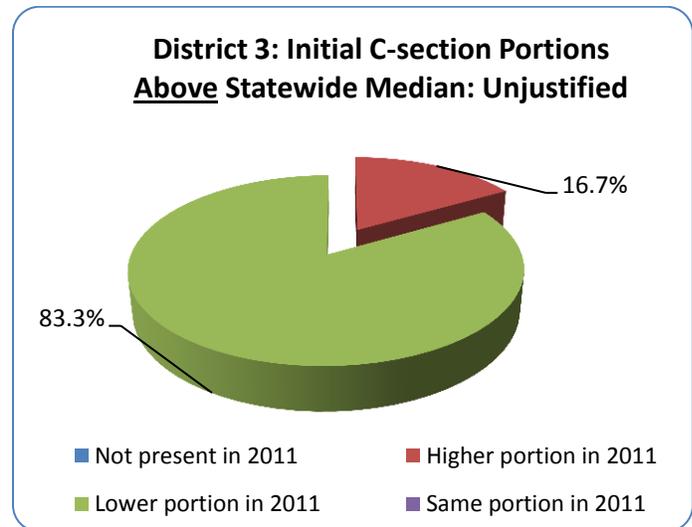
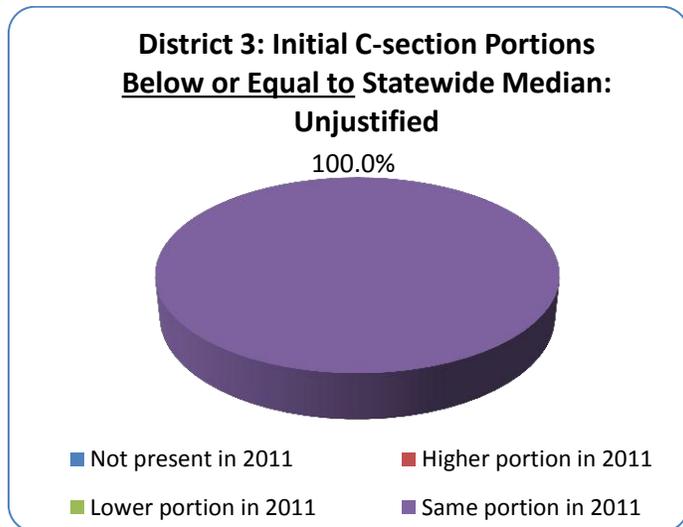


Table 6.3. Provider Portions for C-sections Not Medically Indicated according to the statewide Median (excludes providers only present in 2011)

Provider Not Medically Indicated C-section Portion Change from Jan-June 2010 to July-Dec 2011 (excludes providers only present in 2011)		
Median portion=13.3%	Initial not medically indicated C-section portion <u>below or equal</u> to statewide Median	Initial not medically indicated C-section portion <u>above</u> statewide Median
# of providers	1	12
Not present in 2011	0.0%	0.0%
Higher portion in 2011	0.0%	16.7%
Lower portion in 2011	0.0%	83.3%
Same portion in 2011	100.0%	0.0%

Summary of Findings for District 3

District 3 retains very low C-section rates for this gestational age category. The portion of C-sections that were not medically indicated declined markedly after the PIP intervention. District PIP program notes indicate that area hospitals also implemented requirements necessary in order to schedule cesarean deliveries.

District 4

Section 1.4. Total C-section Rates by District

In District 4, Medicaid providers performed 765 deliveries from January to June 2010 and 845 deliveries from July to December 2011. This increase in the total number of deliveries in District 4 represents a 13.7% change. Among all deliveries, there were only 36 C-sections performed between 37 and 39 weeks gestation in the baseline period and 20 during the follow-up period. Although there were not a large number of C-sections performed among District 4 providers in either the baseline or follow-up period, the percent change was -48.9%. Once the program was implemented in the District in 2011 there was a reduction in the rate of C-sections compared with the baseline rate in 2010, 4.7% and 2.4%, respectively .See Table 1.4.

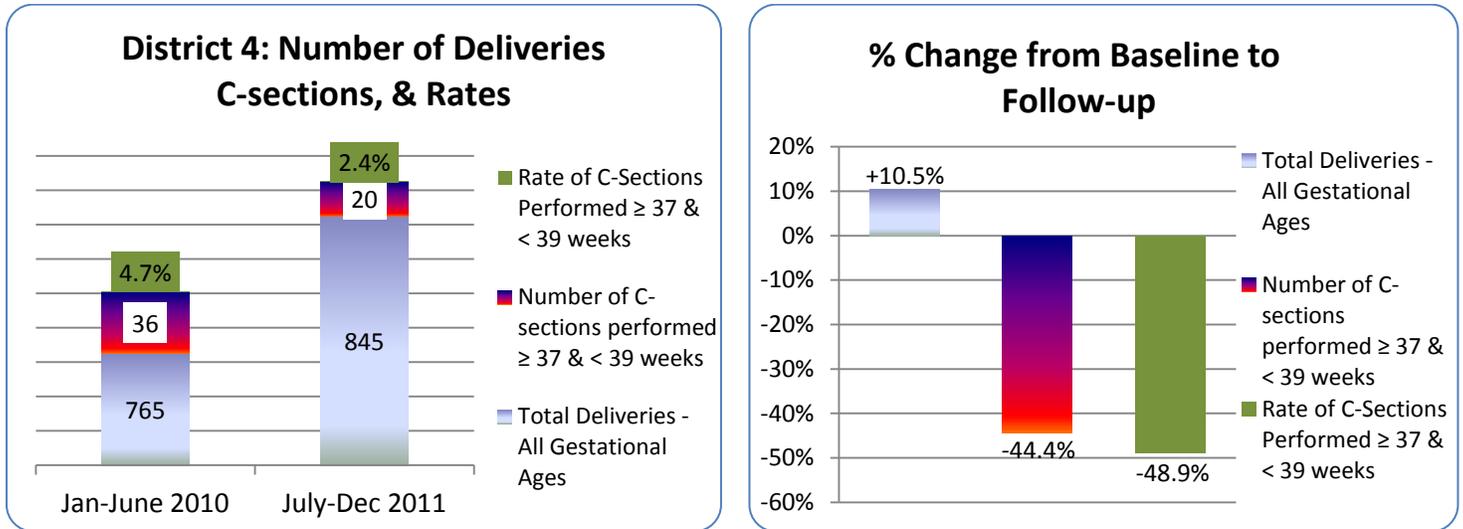


Table 1.4. Overall Deliveries, Total C-sections and C-section Rates for District 4

District 4	Jan-June 2010	July-Dec 2011	% Change
Total Deliveries	765	845	+10.5%
C-sections	36	20	-44.4%
C-section Rate	4.7%	2.4%	-48.9%

2.4. Average C-section Rates for Participating Providers Increased in District 4.

In District 4 the number of providers with deliveries from the baseline to the follow-up period remained the same. Among the 27 Medicaid maternity providers in the baseline period there was a 3.5% (Std. Dev. ± 5.0) C-section rate. At follow-up the rate per provider increased slightly to 3.7% (Std. Dev. ± 9.6). This represents a +5.7% change in the C-section rate per provider from baseline to follow-up. See Table 2.4.

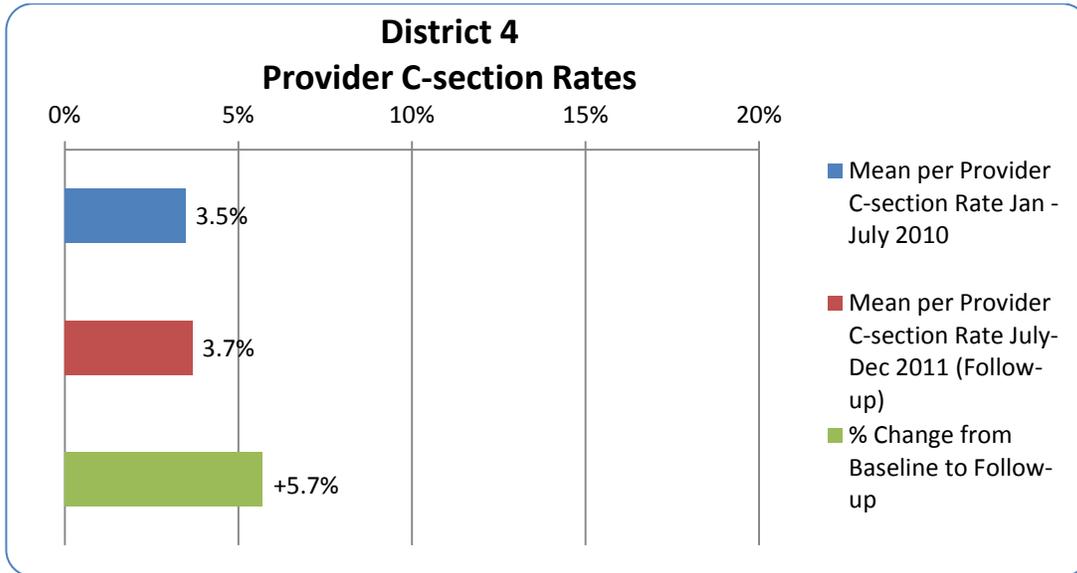


Table 2.4. Provider C-section Rates for District 4

District 4: Number of Providers with Deliveries	Number & Rate	% Change
# Providers Jan-July 2010 (Baseline)	27	0.0%
# Providers July-Dec 2011 (Follow-up)	27	
Provider C-section Rates		
Mean (\pm Std. Dev.) per Provider C-section Rate Jan-July 2010 (Baseline)	3.5% (± 5.0)	+5.7%
Mean (\pm Std. Dev.) per Provider C-section Rate July-Dec 2011 (Follow-up)	3.7% (± 9.6)	

3.4. Portions of Not Medically Indicated C-sections Declined in the District 4.

As mentioned above, there was a decrease in the already few number of C-sections performed between 37 and 39 weeks in District 4 after the program was implemented. Among those C-sections performed that were not medically indicated between 37 and 39 weeks, there was a considerable reduction from the baseline to the follow-up period, 13 and 7, respectively, but this represents a very minor decline in the overall portion of not medically indicated C-sections out of all C-sections. See Table 3.4.

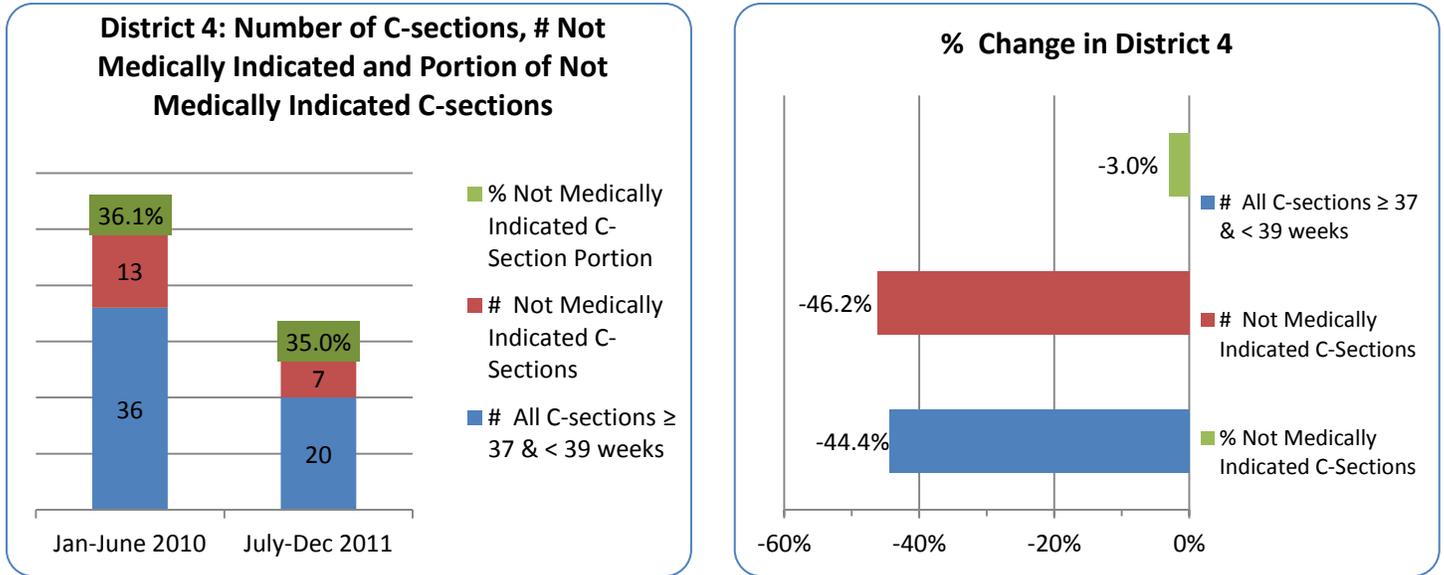


Table 3.4. Number of all C-sections performed between 37 and 39 weeks, Number and portion of C-sections NOT medically indicated in District 4.

C-sections Not Medically Justified	Jan-June 2010	July-Dec 2011	% Change
# All C-sections ≥ 37 & < 39 weeks	36	20	-44.4%
# Not Medically Indicated C-sections	13	7	-46.2%
% Not Medically Indicated C-sections	36.1%	35.0%	-3.0%

4.4. Average Portion of C-sections Not Medically Indicated per Participating Provider Increased in District 4.

In District 4 the number of providers performing C-sections between 37 and 39 weeks decreased from the baseline, January to July 2010, to the follow-up period, July to December 2011, from 5 to 13, respectively. The per provider C-section portion for unjustified procedures increased from a rate of 38.3% to 44.9% which represents a percent change of +17.2% from baseline in 2010 to the follow-up period in 2011. See Table 4.4.

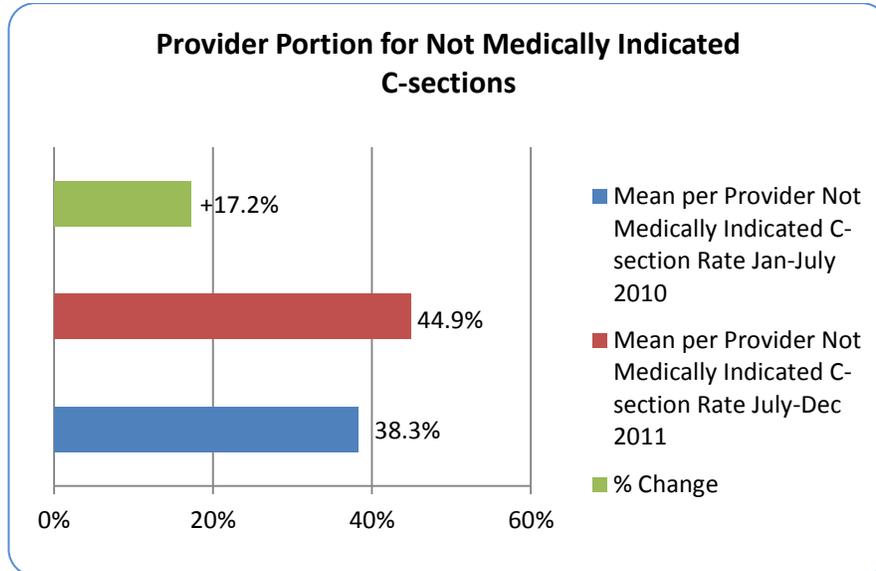


Table 4.4. Number of Providers performing C-sections between 37 and 39 weeks gestation and Average Portion of C-sections per provider that were not medically indicated

Number of Providers Performing C-sections		% Change
# Providers Jan-June 2010	15	-13.3%
# Providers July-Dec 2011	13	
Average Portion per Provider		
Mean (\pm Std. Dev.) per Provider Not Medically Indicated C-section Portion Jan-July 2010	38.3% (\pm 45.6)	+17.2%
Mean (\pm Std. Dev.) per Provider Not Medically Indicated C-section Portion July-Dec 2011	44.9% (\pm 16.0)	

5.4. *Providers Who Had Higher Than The Median Rate Of C-sections In The Initial Period Were Most Likely To Reduce Their C-section Rates, Compared To Providers With Relatively Low Rates Initially, For District 4.*

In District 4 providers who performed C-sections and had a procedure rate below or equal to the statewide median of 7.3% were more likely to either have a lower rate (36.4%) or maintain their below median rate (36.4%) during the follow-up period in 2011. Only twenty-seven percent increased their rates in 2011. All (100.0%) providers that initially had C-section rates above the statewide median lowered their rates in 2011. See Table 5.4.

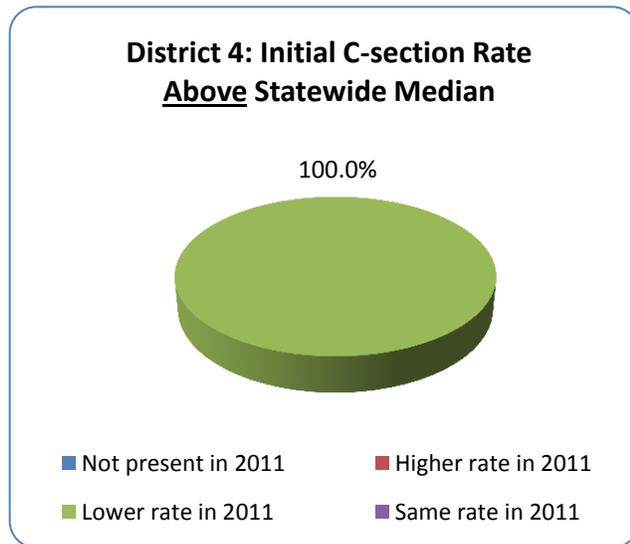
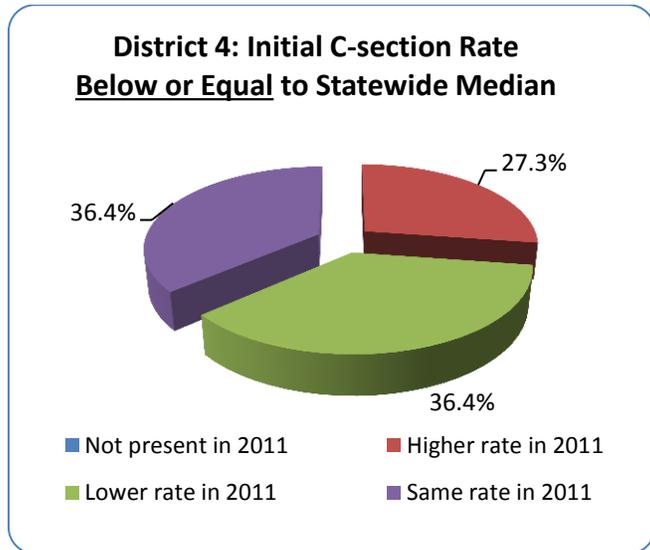


Table 5.4.

Provider C-section Rate Change from Jan-June 2010 to July-Dec 2011 In Relation to the Median (excludes providers only present in 2011)		
Statewide Median Rate=7.3%	Initial C-section rate <u>below or equal to</u> statewide Median	Initial C-section rate <u>above</u> statewide Median
# of providers	22	5
Not present in 2011	0.0%	0.0%
Higher rate in 2011	27.3%	0.0%
Lower rate in 2011	36.4%	100.0%
Same rate in 2011	36.4%	0.0%

6.4. Providers Who Had Higher Than The Median Portion Of Not Medically Indicated C-sections In The Initial Period Were More Likely To Increase Their C-section Rates For Not Medically Indicated, Compared To Providers With Relatively Low Rates Initially, In District 4.

In District 4 providers (37.5%) who performed C-sections that were not justified who had a procedure portion below or equal to the statewide median of 13.3% were equally likely to have lowered or increased their baseline portion in the follow-up period. One-quarter maintained their baseline procedure portions in 2011. Providers (28.6%) whose baseline portions were above the median reduced their portions of C-sections that were not medically justified during the intervention period, but a large majority (71.4%) had even higher portions in 2011. See Table 6.4.

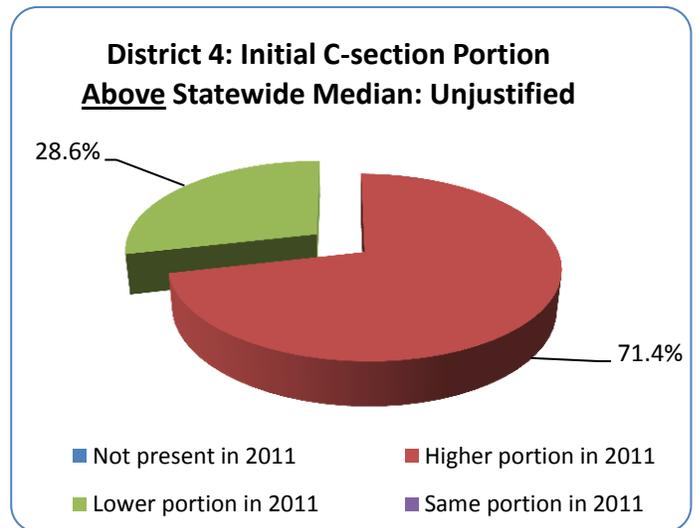
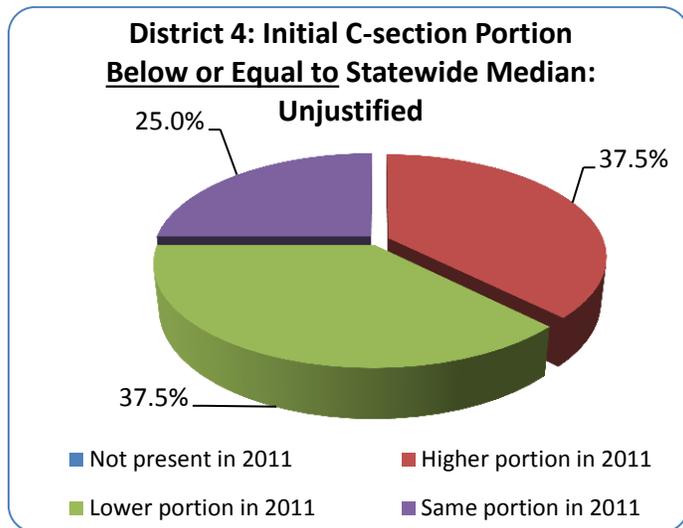


Table 6.4. Provider Portions for C-sections Not Medically Indicated according to the statewide Median (excludes providers only present in 2011)

Providers' Not Medically Indicated C-section Portion Change from Jan-June 2010 to July-Dec 2011 (excludes providers only present in 2011)		
Median portion=13.3%	Initial not medically indicated C-section portion <u>below or equal</u> to statewide Median	Initial not medically indicated C-section portion <u>above</u> statewide Median
# of providers	8	7
Not present in 2011	0.0%	0.0%
Higher portion in 2011	37.5%	71.4%
Lower portion in 2011	37.5%	28.6%
Same portion in 2011	25.0%	0.0%

Summary of Findings for District 4.

District 4 retains an extremely low C-section rate for this gestational age category. The portion of these C-sections that were not medically justified remained stable from 2010 to 2011. Interventionists in the District reported that hospitals now require a medically necessary diagnosis in order to schedule C-sections between 37 and 39 weeks gestation.

District 5

Section 1.5. Total C-section Rates by District

In District 5, Medicaid providers performed 3,179 deliveries from January to June 2010 and 3,323 deliveries from July to December 2011. This increase in the total number of deliveries in District 5 represents a 4.5% change. Among all deliveries, there were only 250 C-sections performed between 37 and 39 weeks gestation in the baseline period, and 115 during the follow-up period. This represents a percent change of -54.0% in the number of procedures performed among all deliveries. Once the program was implemented in the District in 2011 there was a reduction in the rate of C-sections compared with the baseline rate in 2010, from 7.9% to 3.5%. See Table 1.5.

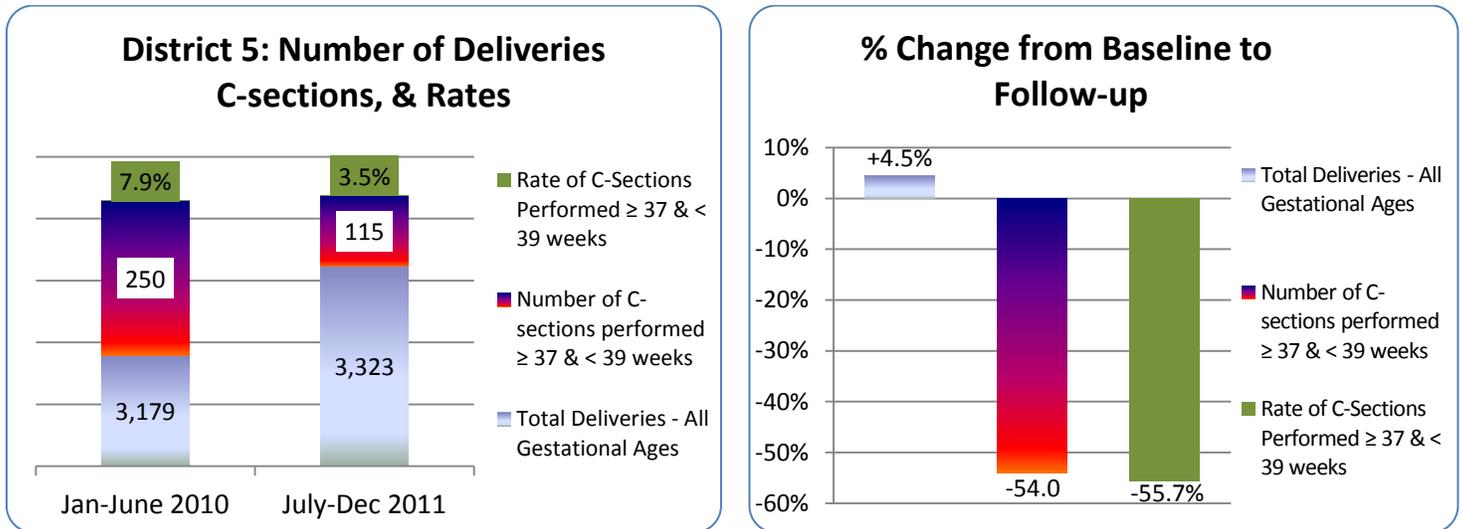


Table 1.5. Overall Deliveries, Total C-sections and Rates for District 5

District 5	Jan-June 2010	July-Dec 2011	% Change
Total Deliveries	3,179	3,323	+4.5%
C-sections	250	115	-54.0%
C-section Rate	7.9%	3.5%	-55.7%

2.5. Average C-section Rates for Participating Providers Decreased in District 5.

In District 5 the number of providers with deliveries from the baseline to the follow-up period decreased from 62 to 60. Among the Medicaid maternity providers in the baseline period there was an 8.3% (Std. Dev. ± 8.8) C-section rate and at follow-up the rate per provider decreased significantly to 3.9% (Std. Dev. ± 4.1). This represents a -53.0% change in the C-section rate per provider from baseline to follow-up. See Table 2.5.

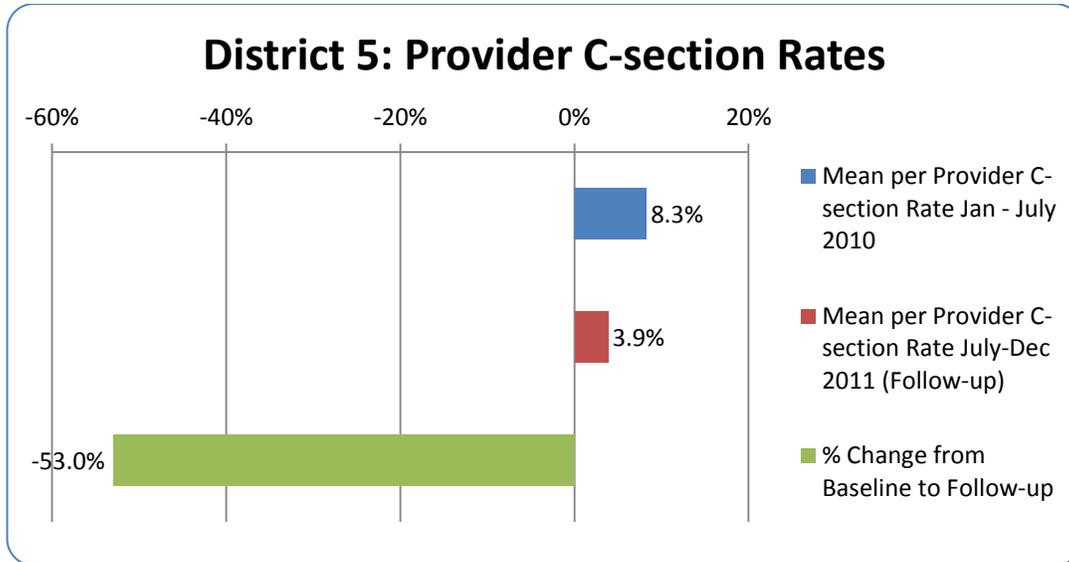


Table 2.5. Provider C-section Rates for District 5

District 5: Number of Providers with Deliveries	Number & Rate	% Change
# Providers Jan-July 2010 (Baseline)	62	-3.2%
# Providers July-Dec 2011 (Follow-up)	60	
Provider C-section Rates		
Mean (\pm Std. Dev.) per Provider C-section Rate Jan-July 2010 (Baseline)	8.3% (± 8.8)	-53.0%
Mean (\pm Std. Dev.) per Provider C-section Rate July-Dec 2011 (Follow-up)	3.9%**** (± 4.1)	

**** p < .001 t-test

3.5. Portions of Not Medically Indicated C-sections Declined in the District 5.

As mentioned above, there was a large decrease in the number of C-sections performed between 37 and 39 weeks in District 5 after the program was implemented. Among those C-sections performed that were not medically indicated between 37 and 39 weeks, there was a decrease from the baseline to the follow-up period, 41 and 22, respectively. The portion of C-sections performed that were not indicated medically at baseline was 16.4% and at follow-up the portion increased to 19.1%. This represents a 16.5% change in C-sections that were not justified medically in the District. See Table 3.5.

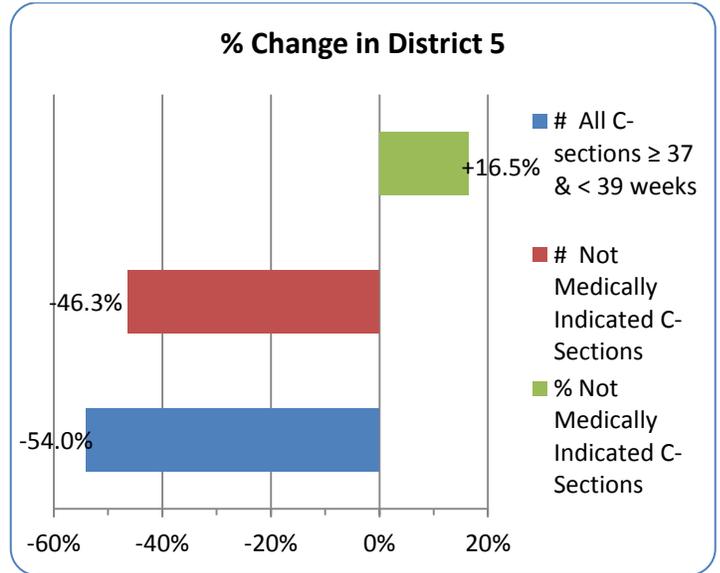
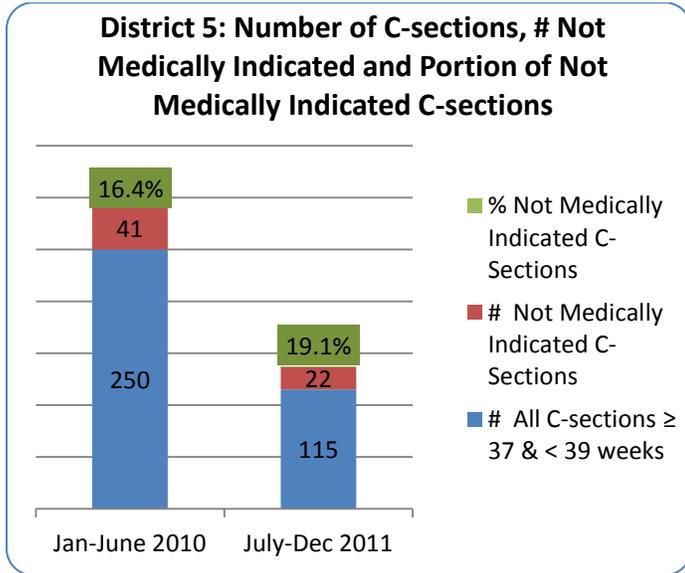


Table 3.5. Number of all C-sections performed between 37 and 39 weeks, Number and portion of C-sections NOT medically indicated in District 5.

C-sections Not Medically Justified	Jan-June 2010	July-Dec 2011	% Change
# All C-sections performed ≥ 37 & < 39 weeks	250	115	-54.0%
# Not Medically Indicated C-sections	41	22	-46.3%
% Not Medically Indicated C-sections	16.4%	19.1%	+16.5%

4.5. Average Portion of C-sections Not Medically Indicated per Participating Provider Decreased in District 5.

In District 5 the number of providers performing C-sections between 37 and 39 weeks decreased from 55 in the baseline, January to July 2010, to 44 in the follow-up period, July to December 2011. The average per provider portion of C-sections that were not medically justified decreased from 19.7% to 17.5%. This represents a percent change of -11.2% from baseline in 2010 to the follow-up period in 2011. See Table 4.5.

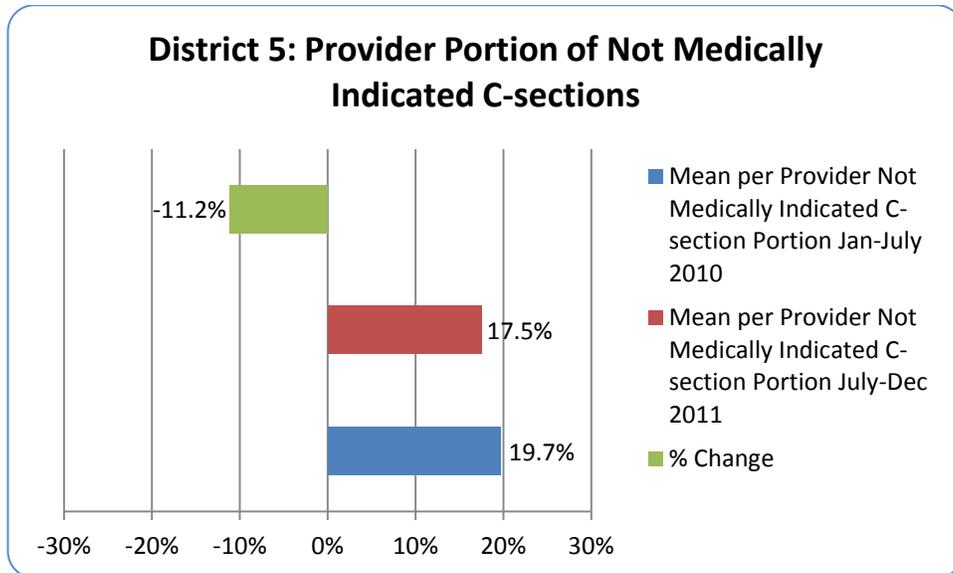


Table 4.5. Number of Providers Performing C-sections between 37 and 39 Weeks and the Average Portion that Were Not Medically Indicated

Number of Providers Performing C-sections		% Change
# Providers Jan-June 2010	55	-20.0%
# Providers July-Dec 2011	44	
Average Portion per Provider		
Mean (±Std. Dev.) per Provider Not Medically Indicated C-section Portion Jan-July 2010	19.7% (±32.9)	-11.2%
Mean (±Std. Dev.) per Provider Not Medically Indicated C-section Portion July-Dec 2011	17.5% (±7.2)	

5.5. *Providers Who Had Higher Than The Median Rate Of C-sections In The Initial Period Were Most Likely To Reduce Their C-section Rates, Compared To Providers With Relatively Low Rates Initially, For District 5.*

In District 5 most providers (66.7%) who performed C-sections and had a procedure rate below or equal to the statewide median of 7.3% were more likely to increase their rates in 2011 although the remaining one-third (33.3%) reduced their rates during the follow-up period. Almost all (96.6%) of providers that initially had C-section rates above the statewide median lowered their rates in 2011. See Table 5.5.

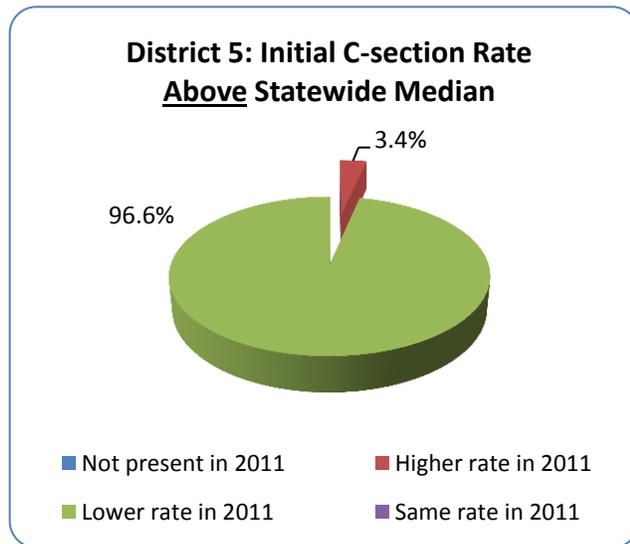
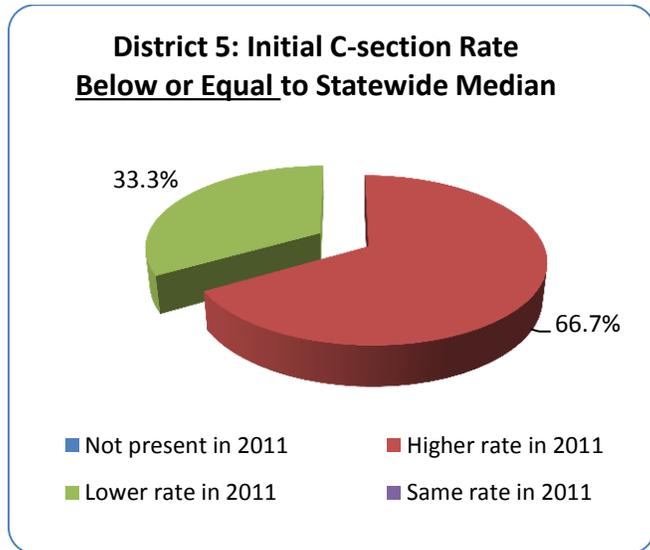


Table 5.5.

Provider C-section Rate Change from Jan-June 2010 to July-Dec 2011 In Relation to the Median (excludes providers only present in 2011)		
Statewide Median Rate=7.3%	Initial C-section rate <u>below or equal</u> to statewide Median	Initial C-section rate <u>above</u> statewide Median
# of providers	33	29
Not present in 2011	0.0%	0.0%
Higher rate in 2011	66.7%	3.4%
Lower rate in 2011	33.3%	96.6%
Same rate in 2011	0.0%	0.0%

6.5. *Providers Who Had Higher Than The Median Portion Of Not Medically Indicated C-sections In The Initial Period Were More Likely To Reduce Their C-section Portions For Not Medically Indicated, Compared To Providers With Relatively Low Portions Initially, In District 5.*

In District 5 almost one-third (32.3%) of providers who performed C-sections that were not justified who had a procedure rate below or equal to the statewide median of 13.3% reduced their rate in the follow-up period and another 45.2% maintained their low rates in 2011. About twenty-three percent (22.6%) had higher rates during the follow-up period in 2011. A large majority (84.2%) that initially had unjustified C-section rates above the statewide median showed reductions in 2011. The remaining proportion (15.8%) of the providers whose baseline rates were above the median had higher rates of C-sections that were not medically justified during the intervention period. See Table 6.5.

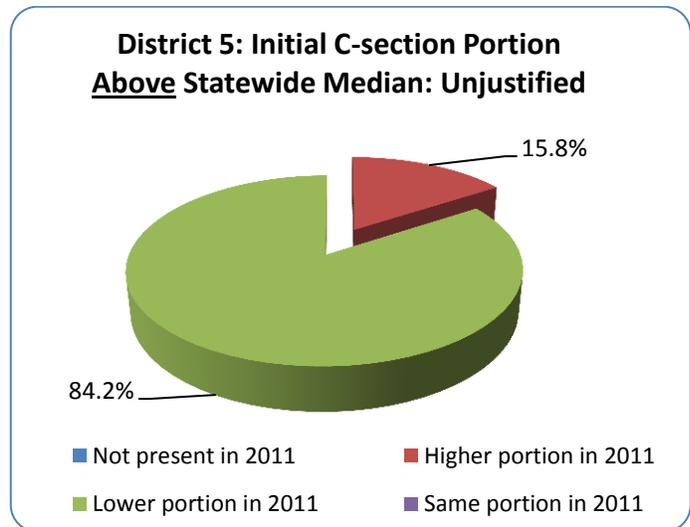
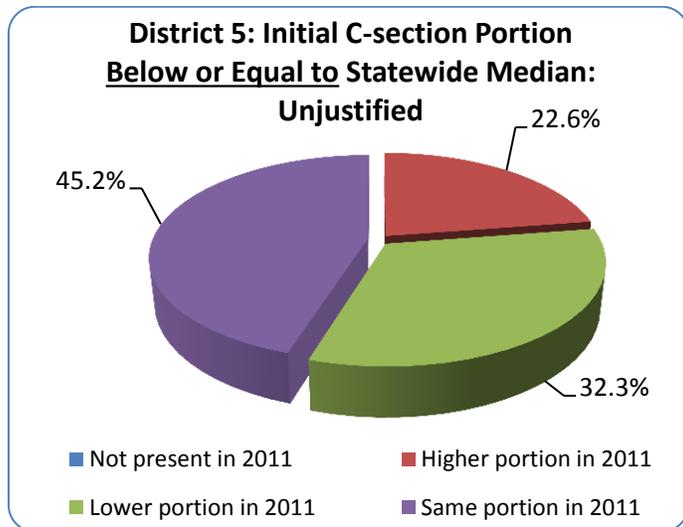


Table 6.5. Provider Portions of C-sections Not Medically Indicated according to the statewide Median (excludes providers only present in 2011)

Provider Not Medically Indicated C-section Portion Change from Jan-June 2010 to July-Dec 2011 (excludes providers only present in 2011)		
Median portion=13.3%	Initial not medically indicated C-section portion <u>below or equal</u> to statewide Median	Initial not medically indicated C-section portion <u>above</u> statewide Median
# of providers	31	19
Not present 2011	0.0%	0.0%
Higher portion in 2011	22.6%	15.8%
Lower portion in 2011	32.3%	84.2%
Same portion in 2011	45.2%	0.0%

Summary of Findings for District 5

In District 5, providers decreased both their overall C-section rates for this gestational age group and the portion of these C-sections that were not medically justified after the PIP intervention. This resulted in a net overall decline in the C-section rate in the district, but not a net overall decline in the portion of C-sections that were not justified, due to differing volumes of patients delivered by providers with different portions of not justified C-sections.

District 6

Section 1.6. Total C-section Rates by District

In District 6, Medicaid providers performed 648 deliveries from January to June 2010 and 592 deliveries from July to December 2011. This decrease in the total number of deliveries in District 6 represents an 8.6% change. Among all deliveries, there were 83 C-sections performed between 37 and 39 weeks gestation in the baseline period and 104 during the follow-up period, a 25.3% increase. C-section rates increased in the District from 12.8% during the baseline period to 17.6% in the follow-up period, an increase of 37.5%. See Table 1.6.

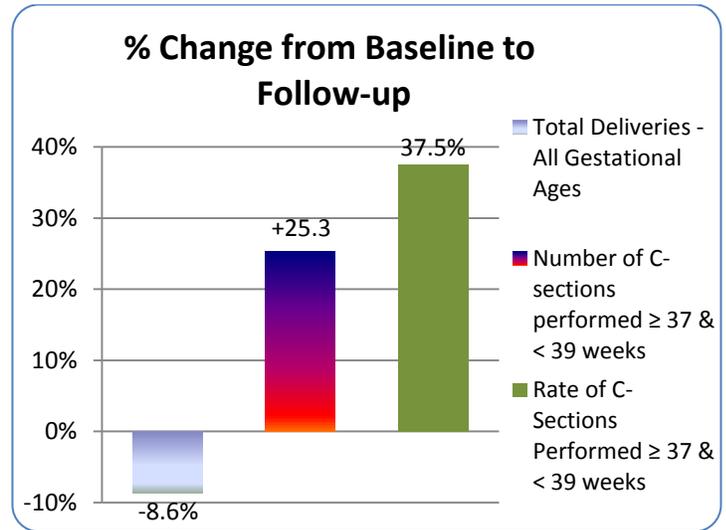
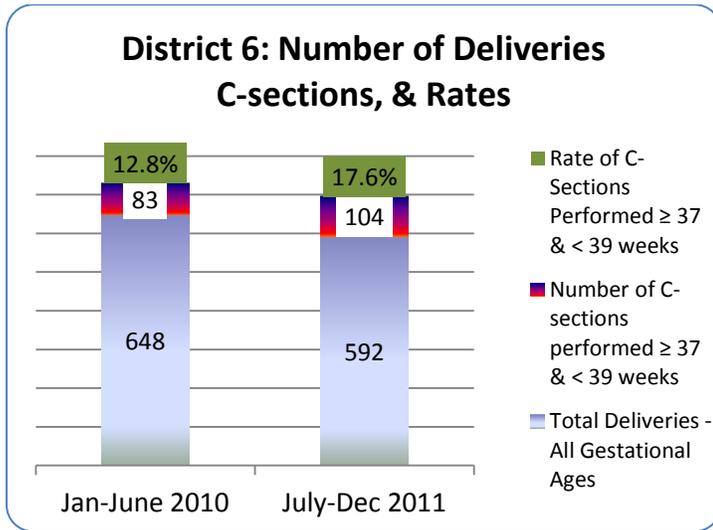


Table 1.6. Overall Deliveries, Total C-sections and Rates for District 6

District 6	Jan-June 2010	July-Dec 2011	% Change
Total Deliveries	648	592	-8.6%
C-sections	83	104	+25.3%
C-section Rate	12.8%	17.6%	+37.5%

2.6. Average C-section rates for Participating Providers Increased in District 6.

In District 6 the number of providers with deliveries from the baseline to the follow-up period remained basically the same. Among the 10 Medicaid maternity providers in the baseline period there was an average 8.1% (Std. Dev. ± 9.9) C-section rate. At follow-up the rate per provider increased to 19.9% (Std. Dev. ± 16.7). This represents a +146% change in the C-section rate per provider from baseline to follow-up. See Table 2.6.

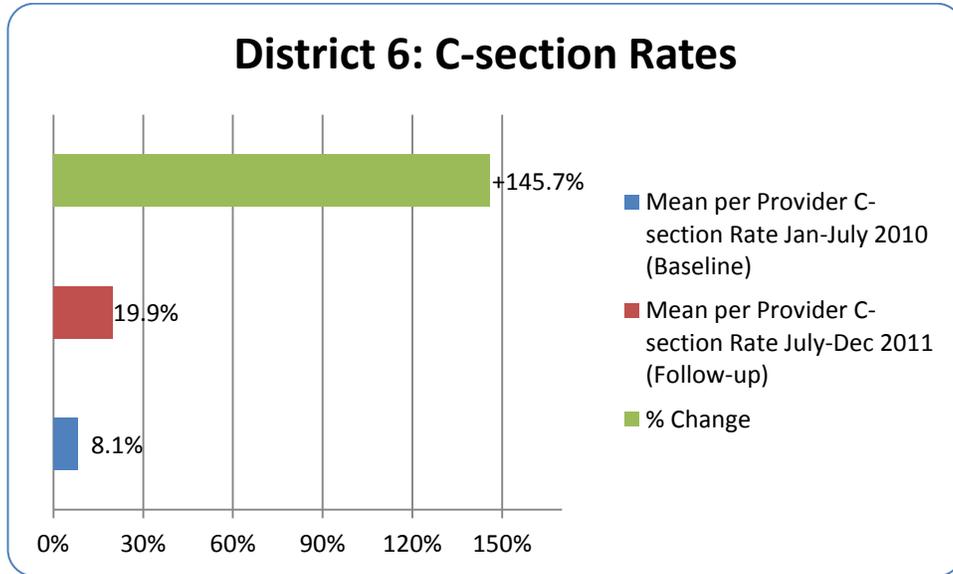


Table 2.6. Provider C-section Rates for District 6

District 6: Number of Providers with Deliveries	Number & Rate	% Change
# Providers Jan-July 2010	10	+3.2%
# Providers July-Dec 2011 (Follow-up)	11	
Provider C-section Rates		
Mean (\pm Std. Dev.) per Provider C-section Rate Jan-July 2010 (Baseline)	8.1% (± 9.9)	+145.7%
Mean (\pm Std. Dev.) per Provider C-section Rate July-Dec 2011 (Follow-up)	19.9% (± 16.7)	

3.6. Rates of Not Medically Indicated C-sections Declined in the District 6.

As mentioned above, there was an increase in the number of C-sections performed in District 6 after the program was implemented. Among those C-sections performed that were not medically indicated between 37 and 39 weeks gestation, there was an increase from the baseline to the follow-up period, 12 and 15, respectively. The portion of C-sections performed that were not indicated medically at both baseline and follow-up was 14.4%. See Table 3.6.

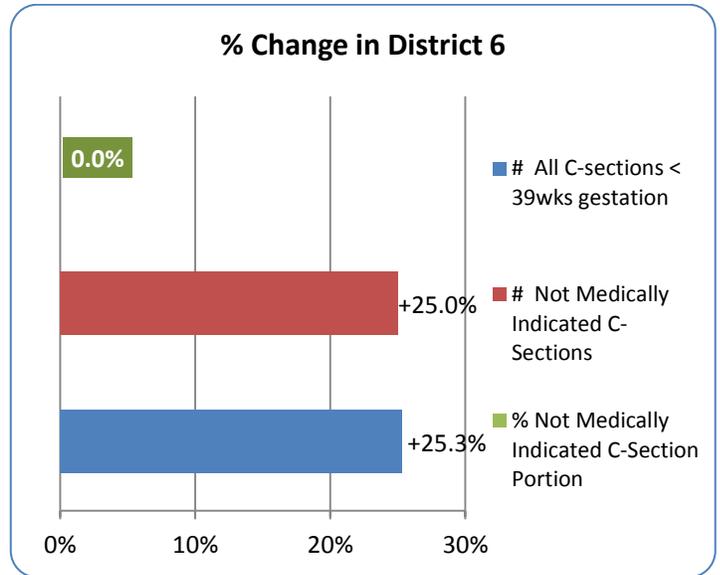
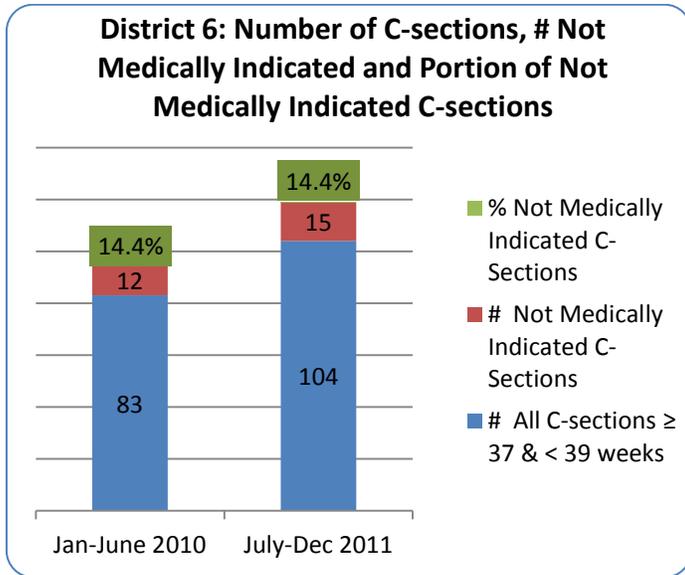


Table 3.6. Number of all C-sections performed between 37 and 39 weeks, Number and portion of C-sections NOT medically indicated in District 6.

C-sections Not Medically Justified	Jan-June 2010	July-Dec 2011	% Change
# All C-sections ≥ 37 & < 39 weeks	83	104	+25.3%
# Not Medically Indicated C-sections	12	15	+25.0%
% Not Medically Indicated C-sections	14.4%	14.4%	0.0%

4.6. Average Portion of C-sections Not Medically Indicated per Participating Provider Decreased in District 6.

In District 6 the number of providers performing C-sections between 37 and 39 weeks increased from 6 in the baseline January to July 2010 to 11 in the follow-up period July to December 2011. The per provider C-section portion of unjustified procedures increased from 11.1% to 15.8%. See Table 4.6.

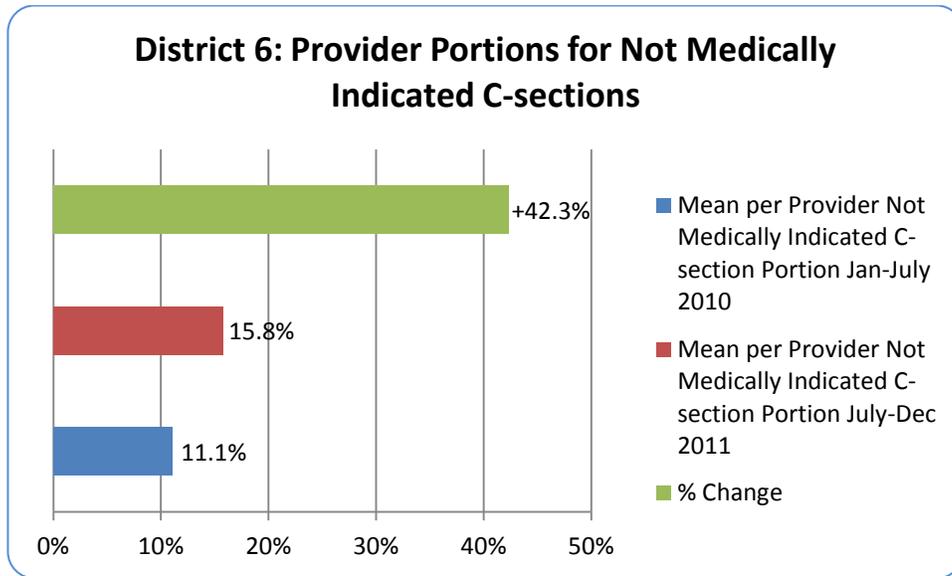


Table 4.6. Number of Providers Performing C-sections between 37 and 39 weeks and Average per Provider Portions of C-sections Not Medically Indicated

Number of Providers Performing C-sections		% Change
# Providers Jan-June 2010	6	+83.3%
# Providers July-Dec 2011	11	
Average Portion per Provider		
Mean (\pm Std. Dev.) per Provider Not Medically Indicated C-section Portion Jan-July 2010	11.1% (\pm 10.0)	+42.3%
Mean (\pm Std. Dev.) per Provider Not Medically Indicated C-section Portion July-Dec 2011	15.8% (\pm 33.1)	

5.6. *Providers Who Had Higher Than The Median Rate Of C-sections In The Initial Period Were Most Likely To Reduce Their Rates Of C-section, Compared To Providers With Relatively Low Portions Initially, In District 6.*

In District 6 providers (50.0%) who performed C-sections and had a procedure rate below or equal to the statewide median of 7.3% were more likely to increase their rate during the follow-up period in 2011. District 6 data included many providers (50.0%) that did not provide services in 2011. All providers that initially had C-section rates above the statewide median lowered their rates in 2011. See Table 5.6.

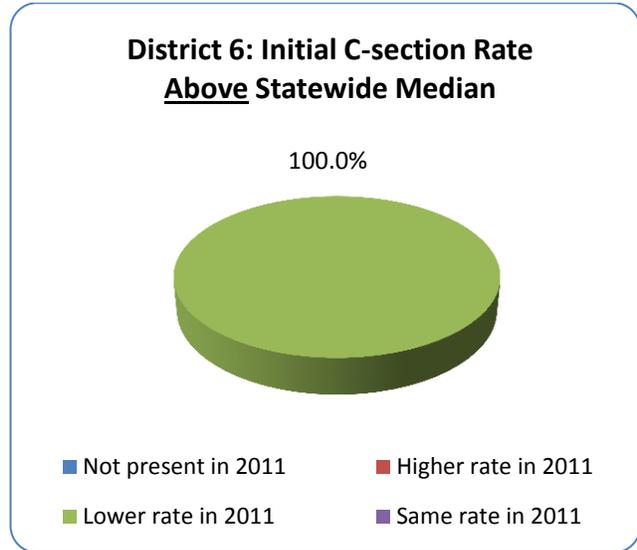
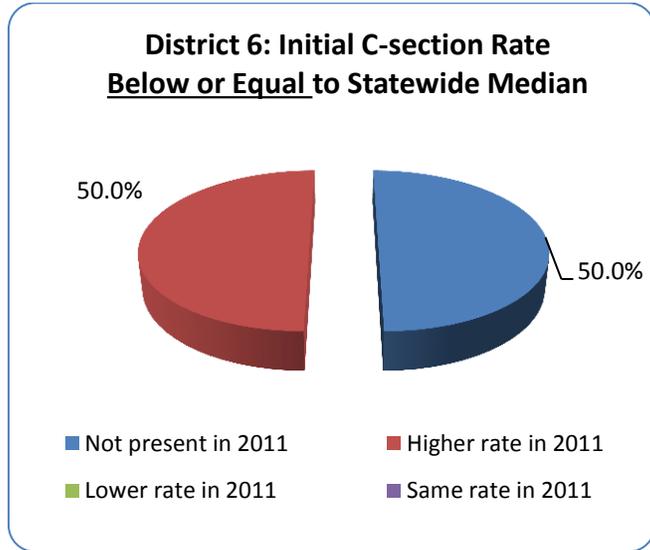


Table 5.6.

Provider C-section Rate Change from Jan-June 2010 to July-Dec 2011 in Relation to the Median (excludes providers only present in 2011)		
Statewide Median Rate=7.3%	Initial C-section rate <u>below or equal</u> to statewide Median	Initial C-section rate <u>above</u> statewide Median
# of providers	6	4
Not present in 2011	50.0%	0.0%
Higher rate in 2011	50.0%	0.0%
Lower rate in 2011	0.0%	100.0%
Same rate in 2011	0.0%	0.0%

6.6. Providers Who Had Higher Than The Median Portions Of Not Medically Indicated C-sections In The Initial Period Were More Likely To Decrease Their Not Medically Indicated Portions, Compared To Providers With Relatively Low Portions Initially, In District 6.

In District 6, one-third of providers with low initial portions of C-sections that were not justified increased this portion in the follow-up period. Eight percent lowered their portions. Two-thirds of providers with low portions in 2010 did not provide services in 2011. Two-thirds of those who had an initial portion above the statewide median reduced their portion in 2011. See Table 6.6.

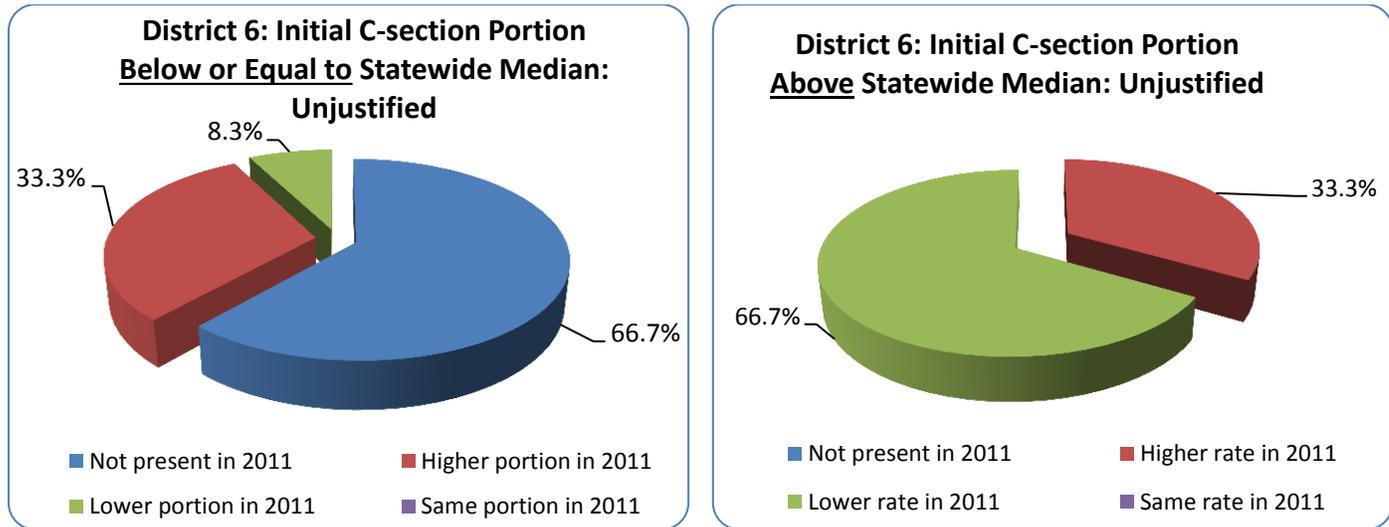


Table 6.6. Provider Portions for C-sections Not Medically Indicated according to the statewide Median (excludes providers only present in 2011)

Provider Not Medically Indicated C-section Portion Change from Jan-June 2010 to July-Dec 2011 (excludes providers only present in 2011)		
Median portion=13.3%	Initial not medically indicated C-section portion <u>below or equal</u> to statewide Median	Initial not medically indicated C-section portion <u>above</u> statewide Median
# of providers	3	3
Not present in 2011	66.7%	0.0%
Higher portion in 2011	33.3%	33.3%
Lower portion in 2011	8.3%	66.7%
Same portion in 2011	0.0%	0.0%

Summary of Findings for District 6

Overall, the portion of deliveries between 37 and 39 weeks gestation with C-sections increased between the two periods, with the portion of these categorized as not medically indicated remaining the same. Individually, average provider C-section rates and portion of cases categorized as not medically justified increased in the district. District intervention notes indicate that some rural providers were not amenable to changing their delivery practices for to meet the Maternity programs objectives and that in some cases hospitals were not interested in changing their tracking or monitoring system according to the PIP. Also within the district there was provider turnover from the baseline to follow-up period.

District 7

Section 1.7. Total C-section Rates by District

In District 7, Medicaid providers performed 110 deliveries from January to June 2010 and 130 deliveries from July to December 2011. This increase in the total number of deliveries in District 7 represents an 18.2% change. Among all deliveries, there were only 9 C-sections performed between 37 and 39 weeks gestation in the baseline period and 6 during the follow-up period. Although there was not a large number of C-sections performed among District 7 providers in the baseline or follow-up period, the percent change was -33.3%. Once the program was implemented in the District in 2011 there was a reduction in the rate of C-sections compared with the baseline rate in 2010, 8.1% and 4.6%, respectively. See Table 1.7.

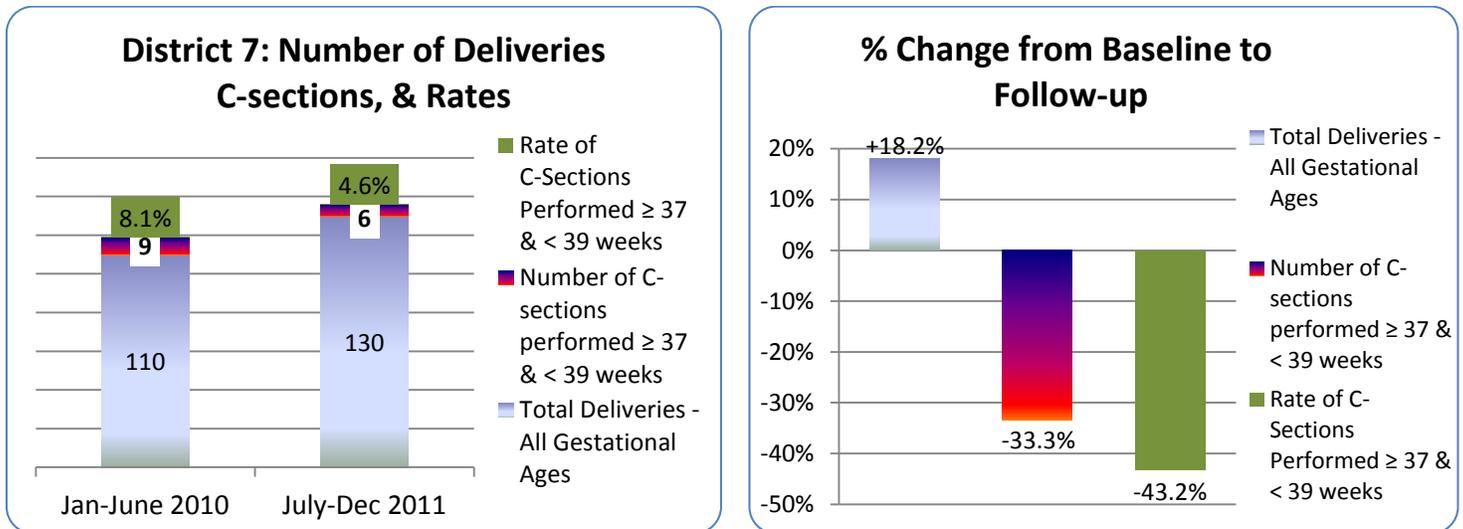


Table 1.7. Overall Deliveries, Total C-sections and Rates for District 7

District 7	Jan-June 2010	July-Dec 2011	% Change
Total Deliveries	110	130	+18.2%
C-sections	9	6	-33.3%
C-section Rate	8.1%	4.6%	-43.2%

2.7. Average C-section Rates for Participating Providers Decreased in District 7.

In District 7 the number of providers with deliveries from the baseline to the follow-up period increased. Among the 23 Medicaid maternity providers in the baseline period there was a 7.3% (Std. Dev. ± 15.4) C-section rate and at follow-up the rate per provider among 26 providers decreased to 4.2% (Std. Dev. ± 8.1). This represents a -42.5% change in the C-section rate per provider from baseline to follow-up. See Table 2.7.

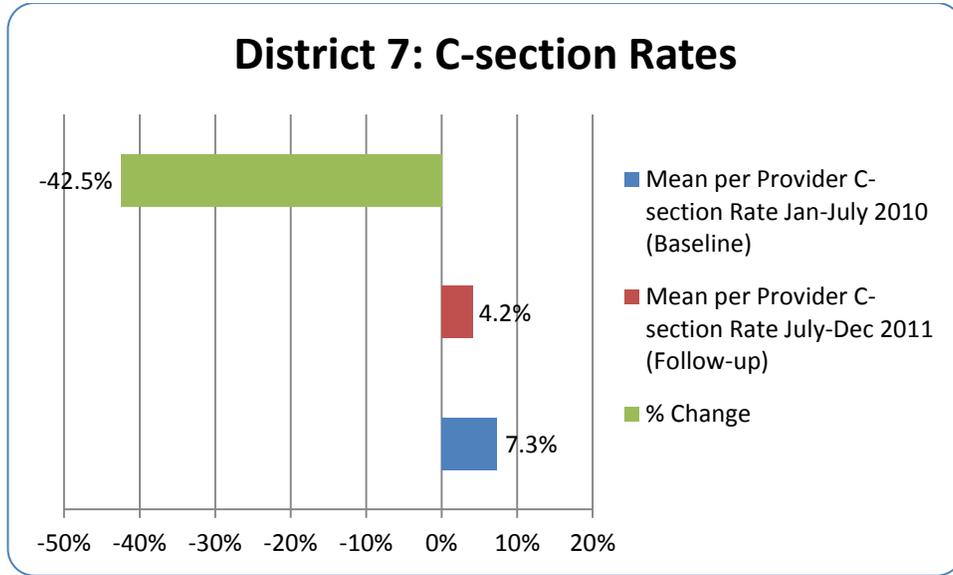


Table 2.7. Provider C-section Rates for District 7

District 7: Number of Providers with Deliveries	Number & Rate	% Change
# Providers Jan-June 2010 (Baseline)	23	-13.0%
# Providers July-Dec 2011 (Follow-up)	26	
Provider C-section Rates		
Mean (\pm Std. Dev.) per Provider C-section Rate Jan-July 2010 (Baseline)	7.3% (± 15.4)	-42.5%
Mean (\pm Std. Dev.) per Provider C-section Rate July-Dec 2011 (Follow-up)	4.2% (± 8.1)	

3.7. Portions of Non-Medically Indicated C-sections Increased in the District 7.

As mentioned above, there was a decline in the number of C-sections performed between 37 and 39 weeks in District 7 after the program was implemented. Among those C-sections performed that were not medically indicated between 37 and 39 weeks, the number from baseline to the follow-up period remained the same at 2. The portion of C-sections performed that were not indicated medically at baseline was 22.2% and at follow-up the portion increased to 33.3%. This portion change observed from baseline to follow-up represents a 50.0% change in C-sections that were not justified medically in District 7. See Table 3.7.

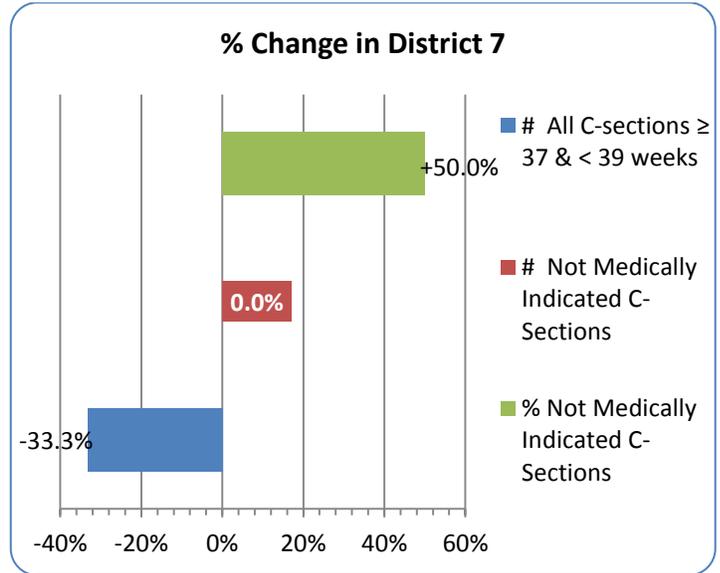
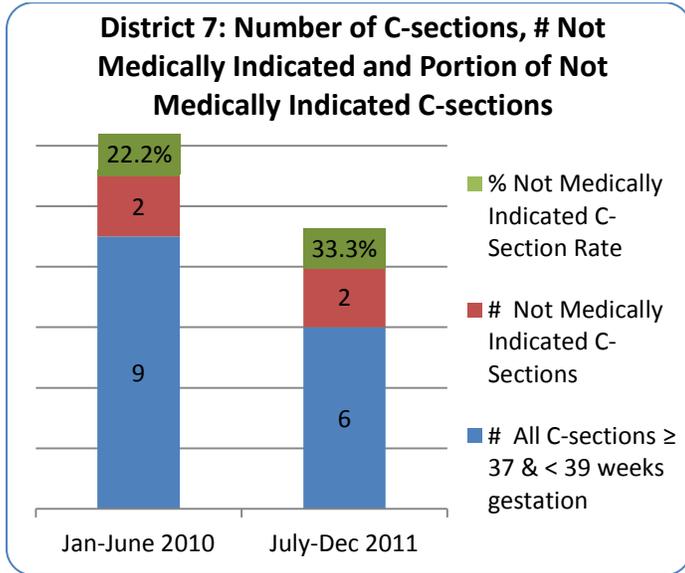


Table 3.7. Number of all C-sections performed between 37 and 39 weeks, Number and portion of C-sections NOT medically indicated in District 7.

C-sections Not Medically Justified	Jan-June 2010	July-Dec 2011	% Change
# All C-sections ≥37 & <39 weeks gestation	9	6	-33.3%
# Not Medically Indicated C-sections	2	2	0.0%
% Not Medically Indicated C-sections	22.2%	33.3%	+50.0%

4.7. Average Portion of C-sections Not Medically Indicated per Participating Providers Remained Unchanged in District 7.

In District 7 the number of providers performing C-sections between 37 and 39 weeks stayed the same at 6 providers from the baseline, January to July 2010, to the follow-up period, July to December 2011. The portion of unjustified procedures per provider remained the same at 33.3% from the period in 2010 to the one in 2011. See Table 4.7.

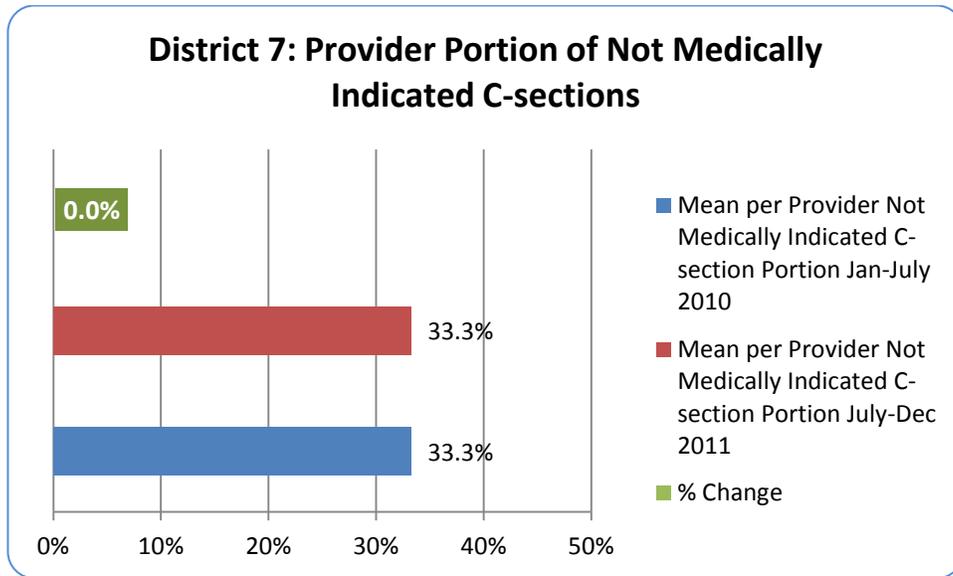


Table 4.7. Number of Providers Performing C-sections between 37 and 39 Weeks Gestation that Were Not Medically Indicated and Average per Provider Portion of Not Medically Indicated Procedures

Number of Providers Performing C-sections		% Change
# Providers Jan-June 2010	6	0.0%
# Providers July-Dec 2011	6	
Average Portion per Provider		
Mean (\pm Std. Dev.) per Provider Not Medically Indicated C-section Portion Jan-July 2010	33.3% (\pm 51.6)	0.0%
Mean (\pm Std. Dev.) per Provider Not Medically Indicated C-section Portion July-Dec 2011	33.3% (\pm 51.6)	

5.7. Providers Who Had Higher Than The Median Rate Of C-sections In The Initial Period Were Most Likely To Reduce Their Rate of C-sections, Compared To Providers With Relatively Low Rates Initially, For District 7. See Table 5.7.

In District 7 providers who performed C-sections and had a procedure rate below or equal to the statewide median of 7.3% were more likely to maintain their rate (76.5%) during the follow-up period in 2011 with the remaining proportion either increasing (17.7%) or decreasing (5.9%) their rates in 2011. All (100.0%) providers that initially had C-section rates above the statewide median lowered them in 2011. See Table 5.7.

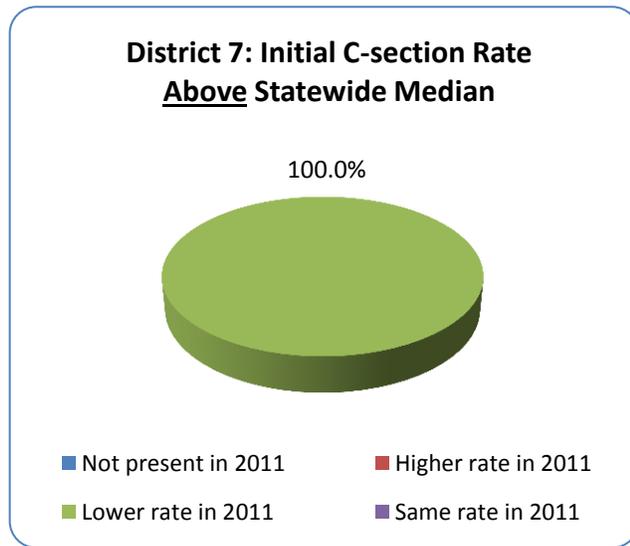
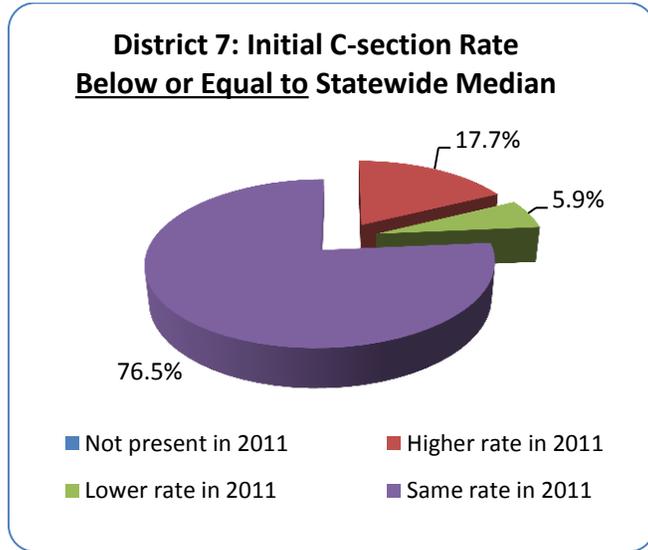


Table 5.7.

Provider C-section Rate Change from Jan-June 2010 to July-Dec 2011 In Relation to the Median (excludes providers only present in 2011)		
Statewide Median Rate=7.3%	Initial C-section rate <u>below or equal to</u> statewide Median	Initial C-section rate <u>above</u> statewide Median
# of providers	17	6
Not present in 2011	0.0%	0.0%
Higher rate in 2011	17.7%	0.0%
Lower rate in 2011	5.9%	100.0%
Same rate in 2011	76.5%	0.0%

6.7. Providers Who Had Higher Than The Median Portion Of Not Medically Indicated C-sections In The Initial Period Were Most Likely To Reduce Their C-section Portions For Not Medically Indicated, Compared To Providers With Relatively Low Portions Initially, In District 7.

In District 7 one-half of providers who performed C-sections that were not justified who had a procedure portion below or equal to the statewide median of 13.3% were more likely to lower their baseline portion in the follow-up period. Another one-quarter of these providers maintained their baseline portions in 2011, and 25.0% of them had higher portions during the follow-up period in 2011. Among providers whose baseline C-section rate portion for non-medically indicated procedures was above the statewide median, all lowered their portions in 2011. See Table 6.7.

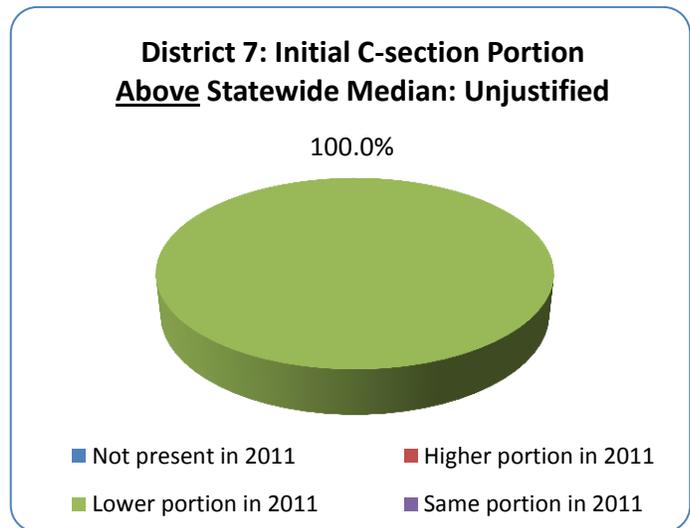
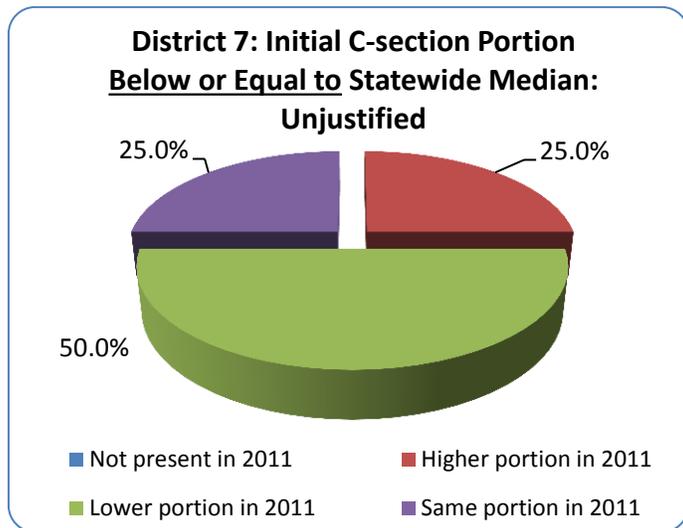


Table 6.7. Provider Portions for C-sections Not Medically Indicated according to the statewide Median (excludes providers only present in 2011)

Provider Not Medically Indicated C-section Portion Change from Jan-June 2010 to July-Dec 2011 (excludes providers only present in 2011)		
Median portion=13.3%	Initial not medically indicated C-section portion <u>below or equal</u> to statewide Median	Initial not medically indicated C-section portion <u>above</u> statewide Median
# of providers	4	2
Not present in 2011	0.0%	0.0%
Higher portion in 2011	25.0%	0.0%
Lower portion in 2011	50.0%	100.0%
Same portion in 2011	25.0%	0.0%

Summary of Findings for District 7

The overall portion of deliveries by C-section for this gestational age group declined between 2010 and 2011, as did the average C-section rate per provider. The overall portion of these deliveries that were not medically justified increased somewhat, although the average portion per provider remained about the same.

District 8

Section 1.8. Total Deliveries, C-sections and C-section Rates by District

In District 8, Medicaid providers performed 82 deliveries from January to June 2010 and 88 deliveries from July to December 2011. This small increase in the total number of deliveries in District 8 represents a 7.3% change. Among all deliveries, there were 16 C-sections performed between 37 and 39 weeks gestation in the baseline period and 13 during the follow-up period. Once the program was implemented in the District in 2011 there was a reduction in the rate of C-sections compared with the baseline rate in 2010, from 19.5% to 14.8%. This decline represents a -24.1% change. See Table 1.8.

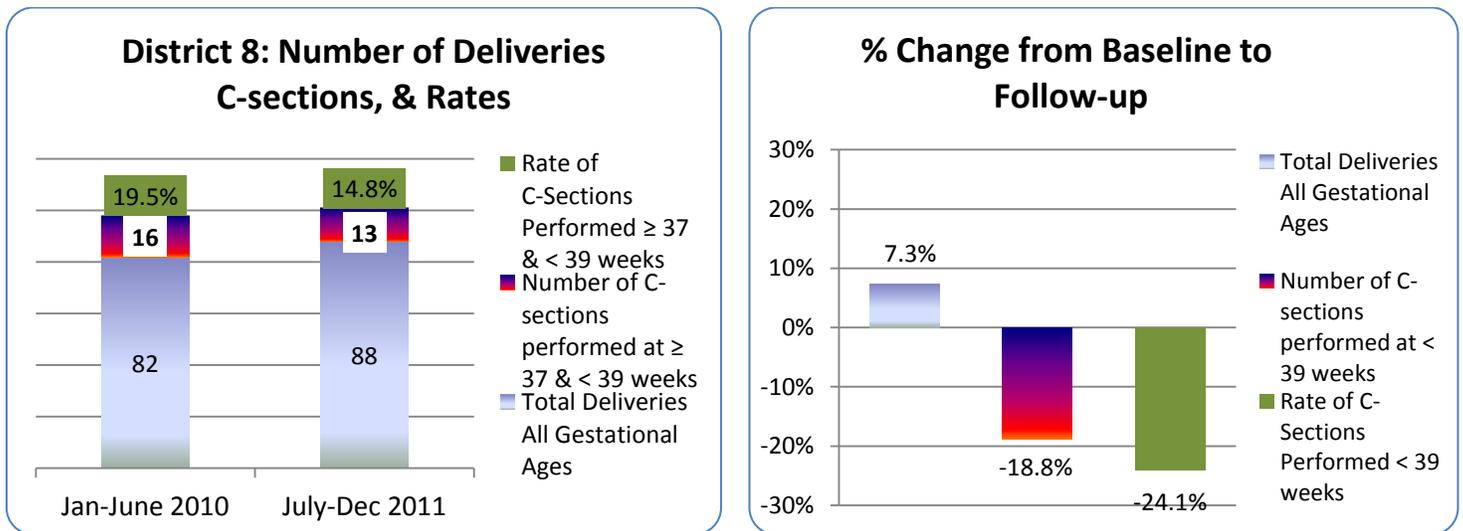


Table 1.8. Overall Deliveries, Total C-sections and Rates for District 8

District 8	Jan-June 2010	July-Dec 2011	% Change
Total Deliveries	82	88	+7.3%
C-sections	16	13	-18.8%
C-section Rate	19.5%	14.8%	-24.1%

2.8. Average C-section Rates for Participating Providers Decreased in District 8.

In District 8 the number of providers with deliveries from the baseline to the follow-up period increased. Among the Medicaid maternity providers in the baseline period there was a 33.7% (Std. Dev. ± 37.1) C-section rate and at follow-up the rate per provider decreased to 20.4% (Std. Dev. ± 10.2) indicating a -39.5% change in the C-section rate per provider from baseline to follow-up. See Table 2.8.

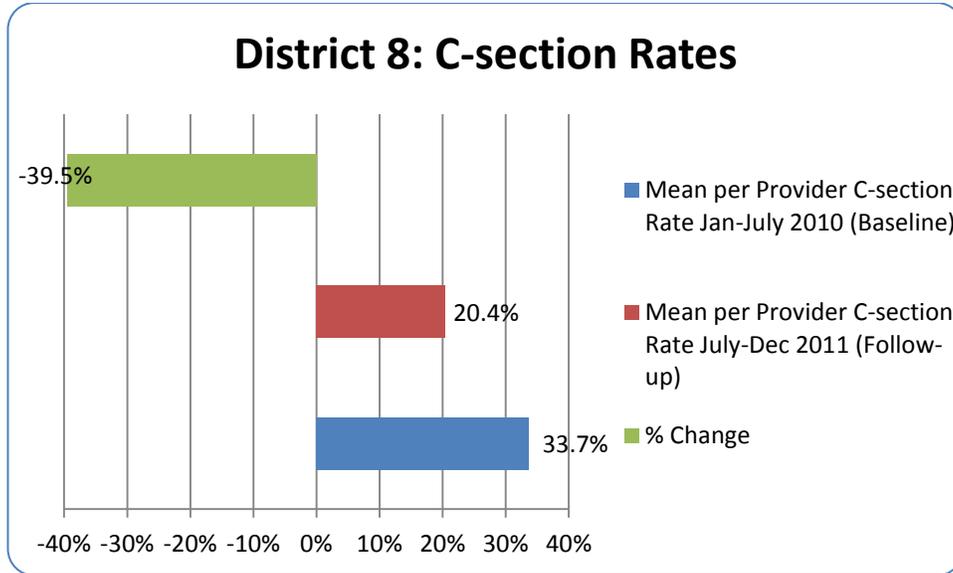


Table 2.8. Provider C-section Rates for District 8

District 8: Number of Providers with Deliveries at all Gestational Ages	Number & Rate	% Change
# Providers Jan-June 2010	5	+40.0%
# Providers July-Dec 2011 (Follow-up)	7	
Provider C-section Rates		
Mean (\pm Std. Dev.) per Provider C-section Rate Jan-July 2010 (Baseline)	33.7% (± 37.1)	-39.5%
Mean (\pm Std. Dev.) per Provider C-section Rate July-Dec 2011 (Follow-up)	20.4% (± 10.2)	

3.8. Portions of Non-Medically Indicated C-sections Increased in the District 8.

As mentioned above, there was a small decrease in the number of C-sections performed between 37 and 39 weeks gestation in District 8 after the program was implemented. Among those C-sections performed that were not medically indicated, the number from baseline to the follow-up period decreased slightly from 7 to 6. The portion of C-sections performed that were not indicated medically at baseline was 43.7% and at follow-up the portion increased to 46.1%. This portion change observed from baseline to follow-up represents a 5.5% change in C-sections that were not justified medically in District 8. See Table 3.8.

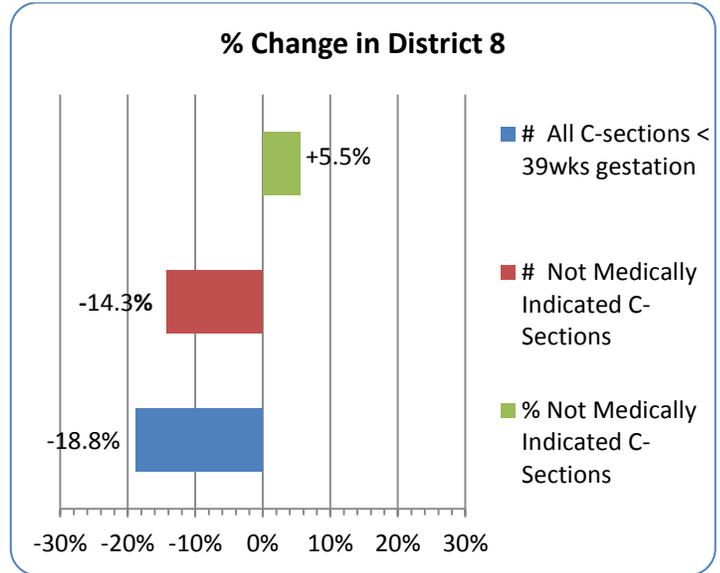
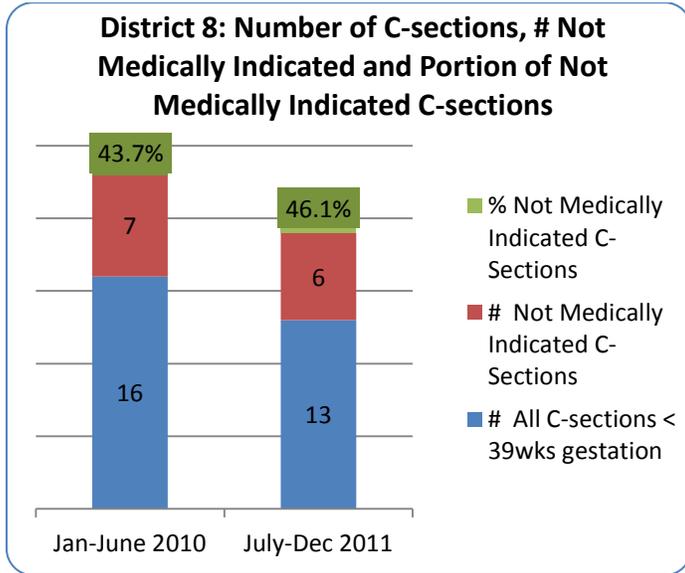


Table 3.8. Number of all C-sections performed between 37 and 39 weeks, Number and portion of C-sections NOT medically indicated in District 8.

C-sections Not Medically Justified	Jan-June 2010	July-Dec 2011	% Change
# All C-sections ≥37 & <39 weeks gestation	16	13	-18.8%
# Not Medically Indicated C-sections	7	6	-14.3%
% Not Medically Indicated C-sections	43.7%	46.1%	+5.5%

4.8. Average Portion of C-sections Not Medically Indicated per Participating Provider Decreased in District 8.

In District 8 the number of providers performing C-sections between 37 and 39 weeks that were not medically indicated increased from the baseline period January to July 2010 to the follow-up period July to December 2011 from 5 to 8. The per provider C-section portion of unjustified procedures decreased from 36.3% (Std. Dev.±35.6) at baseline to 31.2% (Std. Dev.±45.8) at follow-up. This represents a -14.2% change in the non-medically indicated C-section portion per provider. See Table 4.8.

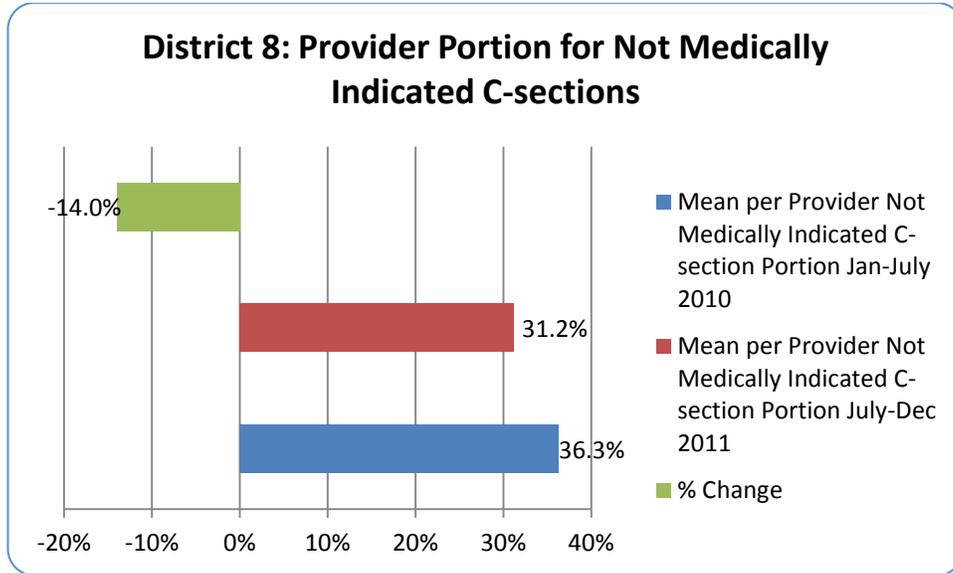


Table 4.8. Number of Providers Performing C-sections between 37 and 39 weeks Gestation that Were Not Medically Indicated and Average per Provider Portion of C-sections that were Not Medically Indicated

Number of Providers Performing C-sections		% Change
# Providers Jan-June 2010	5	+60.0%
# Providers July-Dec 2011	8	
Average Portion per Provider		
Mean (±Std. Dev.) per Provider Not Medically Indicated C-section Portion Jan-July 2010	36.3% (±35.6)	-14.2%
Mean (±Std. Dev.) per Provider Not Medically Indicated C-section Portion July-Dec 2011	31.2% (±45.8)	

5.8. *Providers Who Had Higher Than The Median Rate Of C-sections In The Initial Period Reduced Their C-section Rates In District 8.*

In District 8 all participating providers who performed C-sections at baseline had a procedure rate above the statewide median of 13.3%. Most (80.0%) of these providers lowered their C-section rates in 2011. See Table 5.8.

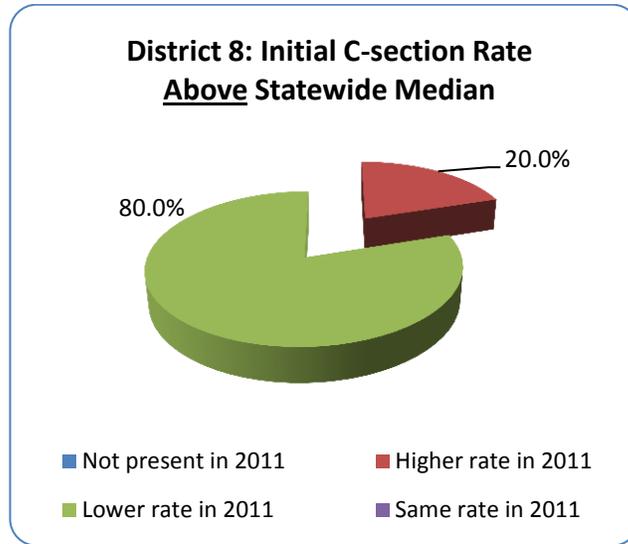


Table 5.8.

Provider C-section Rate Change from Jan-June 2010 to July-Dec 2011 (excludes providers only present in 2011) In Relation to the Median		
Statewide Median Rate=7.3%	Initial C-section rate <u>below or equal</u> to statewide Median	Initial C-section rate <u>above</u> statewide Median
# of providers	0	5
Not present in 2011	n/a	0.0%
Higher rate in 2011	n/a	20.0%
Lower rate in 2011	n/a	80.0%
Same rate in 2011	n/a	0.0%

6.8. *Providers Who Had Higher Than The Median Portion Of Not Medically Indicated C-sections In The Initial Period Were Somewhat Less Likely To Reduce Their C-section Portions For Non-Medically Indicated Procedures, Compared with Providers Who initially Had Lower Median-based Portions In District 8.*

In District 8 providers who performed C-sections that were not justified who had a procedure portion below or equal to the statewide median of 13.3% were likely to either reduce (50.0%) or increase (50.0%) their portions in the follow-up period. Two-thirds (66.7%) of the providers that initially had unjustified C-section portions above the statewide median increased their portions in 2011, but the remaining third had lower portions in 2011. See Table 6.8.

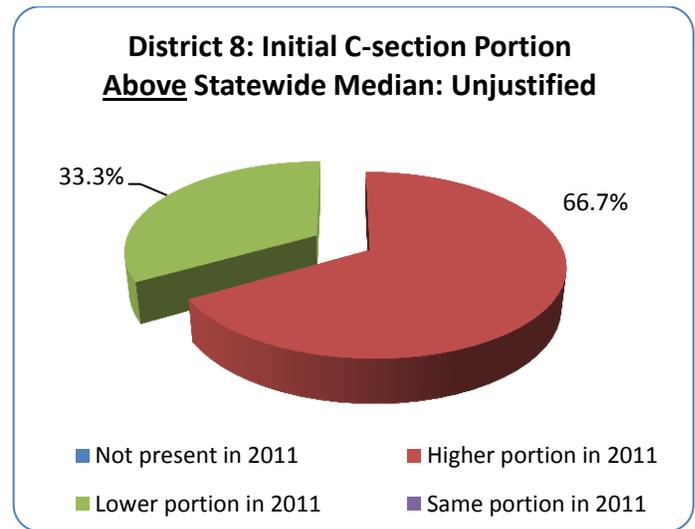
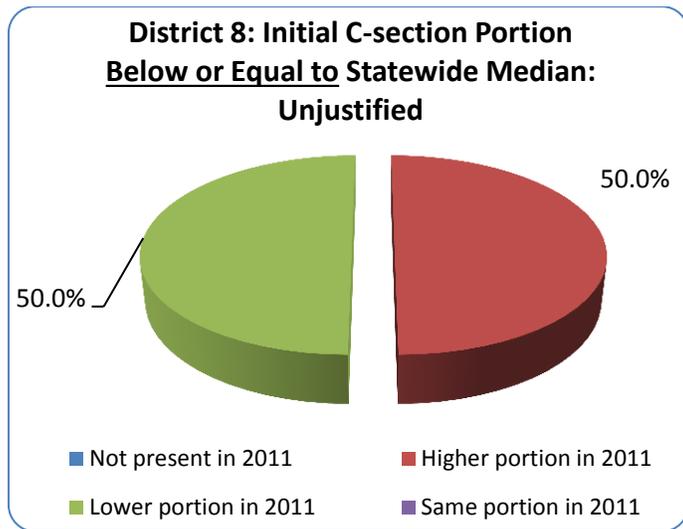


Table 6.8. Provider Portions for C-sections Not Medically Indicated according to the statewide Median (excludes providers only present in 2011)

Provider Not Medically Indicated C-section Portion Change from Jan-June 2010 to July-Dec 2011 (excludes providers only present in 2011)		
Median portion=13.3%	Initial not medically indicated C-section rate <u>below or equal</u> to statewide Median	Initial not medically indicated C-section rate <u>above</u> statewide Median
# of providers	2	3
Not present in 2011	0.0%	0.0%
Higher portion in 2011	50.0%	66.7%
Lower portion in 2011	50.0%	33.3%
Same portion in 2011	0.0%	0.0%

Summary of Findings for District 8

Overall and per provider, both C-section rates and the portion of C-sections that were not medically justified declined between 2010 and 2011.

District 9

Section 1.9. Total C-section Rates by District

In District 9, Medicaid providers performed 323 deliveries from January to June 2010 and 352 deliveries from July to December 2011. Among all deliveries, there were 12 (3.7%) C-sections performed in each of the baseline follow-up periods. There was a small reduction in the rate of C-sections compared with the baseline rate in 2010, from 3.7% to 3.4% and this change represents a -8.1% change. See Table 1.9.

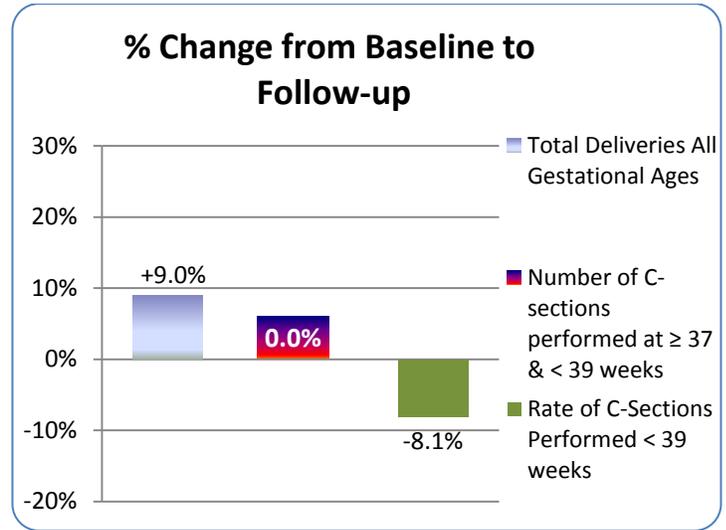
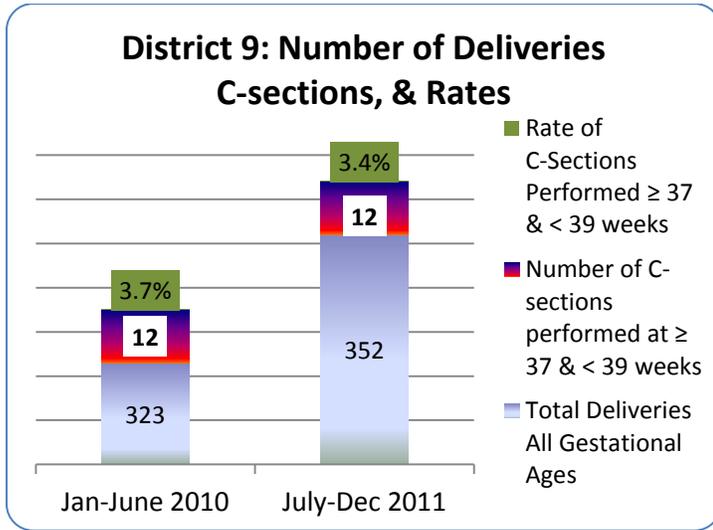


Table 1.9. Overall Deliveries, Total C-sections and Rates for District 9

District 9	Jan-June 2010	July-Dec 2011	% Change
Total Deliveries	323	352	+9.0%
C-sections	12	12	0.0%
C-section Rate	3.7%	3.4%	-8.1%

2.9. Average C-section Rates for Participating Providers Decreased in District 9.

In District 9 there was an increase (40%) in the number of providers with deliveries from the baseline to the follow-up period. Among the 10 Medicaid maternity providers in the baseline period, there was an average C-section rate of 3.3% (Std. Dev. ± 6.21) per provider. Once the Maternity Improvement Program was implemented within District 9, the average C-section rate per provider dropped to 1.9% (Std. Dev. ± 3.6) among all deliveries. This represents a 42.4% reduction in the C-section rate per provider from baseline to follow-up. See Table 2.9.

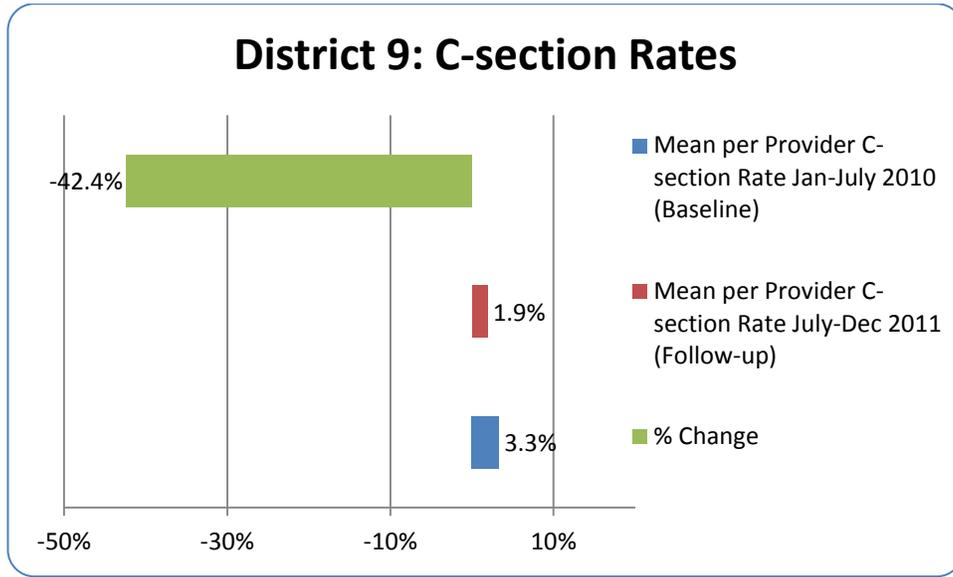


Table 2.9. Provider C-section Rates for District 9

District 9: Number of Providers with Deliveries	Number & Rate	% Change
# Providers Jan-June 2010	10	+40.0%
# Providers July-Dec 2011 (Follow-up)	14	
Provider C-section Rates		
Mean (\pm Std. Dev.) per Provider C-section Rate Jan-July 2010 (Baseline)	3.3% ($\pm 6.2\%$)	-42.4
Mean (\pm Std. Dev.) per Provider C-section Rate July-Dec 2011 (Follow-up)	1.9% ($\pm 3.6\%$)	

3.9. Portion of Non-Medically Indicated C-sections Decreased in the District 9.

As mentioned above, C-section rates among providers decreased compared with baseline rates in District 9. In addition, the portion of these C-sections which were not medically indicated decreased substantially from 100% at baseline to 25% at the follow-up. See Table 3.9.

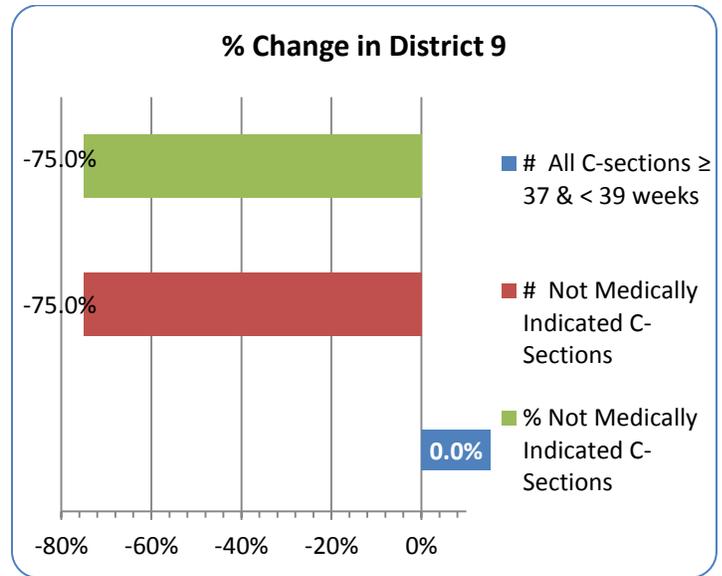
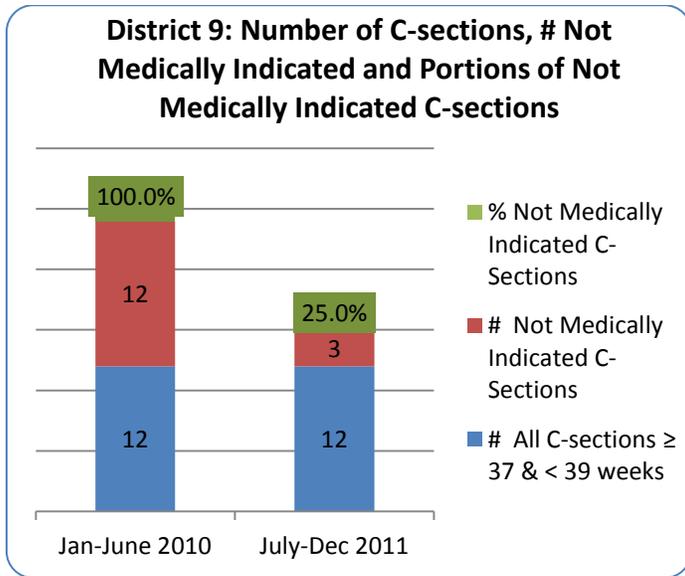


Table 3.9. Number of all C-sections performed between 37 and 39 weeks, Number and portion of C-sections NOT medically indicated in District 9.

C-sections Not Medically Justified	Jan-June 2010	July-Dec 2011	% Change
# All C-sections ≥37 & <39 weeks gestation	12	12	0.0%
# Not Medically Indicated C-sections	12	3	-75.0%
% Not Medically Indicated C-sections	100.0%	25.0%	-75.0%

4.9. Average Portion of C-sections Not Medically Indicated per Participating Provider Decreased in District 9.

The number of providers performing C-sections between 37 and 39 weeks increased from January to July 2010 to the follow-up period from 4 to 5. The average portion of C-sections which were not medically indicated declined by two-thirds (100.0% to 33.3%) from baseline in 2010 to the follow-up period in 2011. This average per provider rate reduction in District 9 was statistically significant at the .05 level according to the t-test analysis. See Table 4.9.

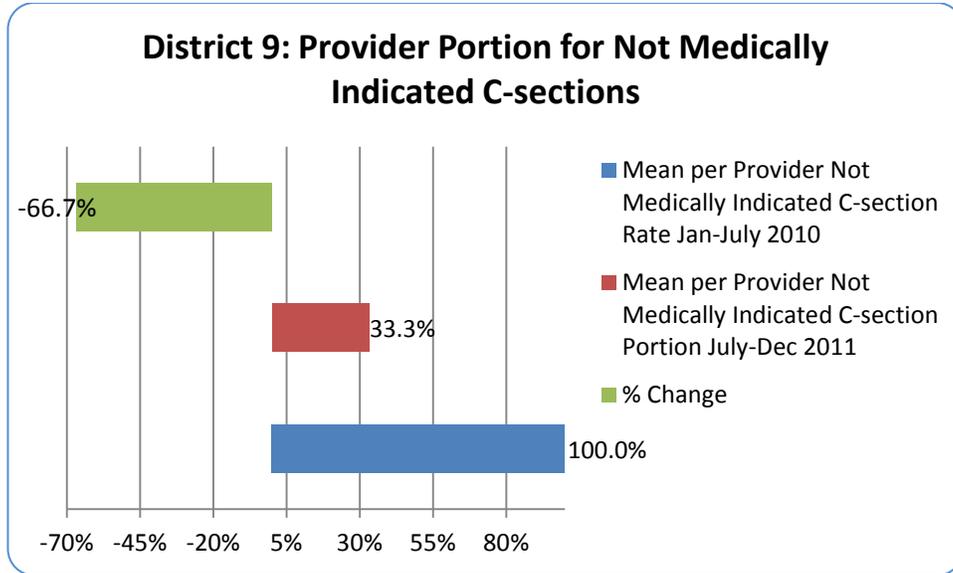


Table 4.9. Number of Providers Performing C-sections between 37 and 39 Weeks and the Average Portion among C-sections that were Not Medically Indicated

Number of Providers Performing C-sections		% Change
# Providers Jan-June 2010	4	+25.0%
# Providers July-Dec 2011	5	
Average Portion per Provider		
Mean (±Std. Dev.) per Provider Not Medically Indicated C-section Portion Jan-July 2010	100.0%	-66.7%
Mean (±Std. Dev.) per Provider Not Medically Indicated C-section Portion July-Dec 2011	33.3%** (±47.1)	

** p < .05 t-test

5.9. Providers Who Had Higher Than The Median Rate Of C-sections In The Initial Period Were More Likely to Reduce Their C-section Rates, Compared To Providers With Relatively Low Rates Initially, For District 9. See Table 5.9.

In District 9, 9 of the 10 providers performed C-sections at a procedure rate below or equal to the statewide median of 7.3%. These providers were more similar in having a higher, a lower or a similar rate during the follow-up period in 2011. Among the remaining 1 provider whose C-section rate was above the statewide median in 2010, he or she lowered their rate in 2011. See Table 5.9.

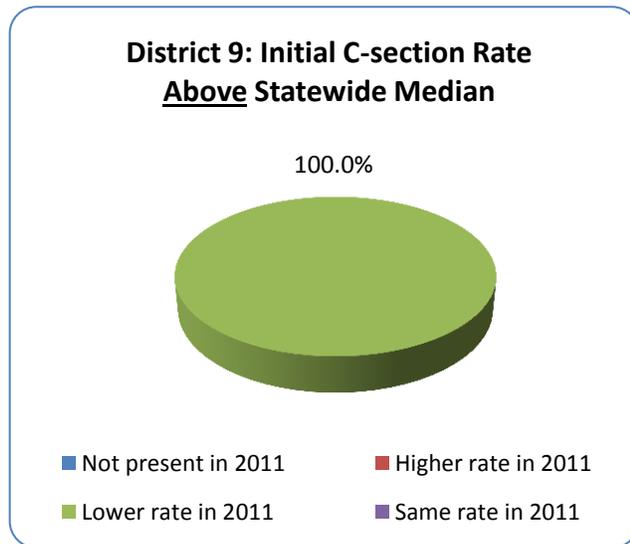
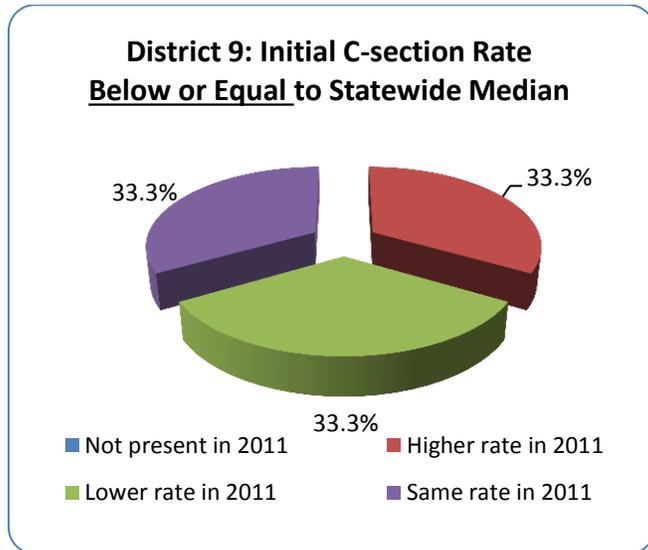


Table 5.9.

Provider C-section Rate Change from Jan-June 2010 to July-Dec 2011 (excludes providers only present in 2011) In Relation to the Median		
Statewide Median Rate=7.3%	Initial C-section rate <u>below or equal to</u> statewide Median	Initial C-section rate <u>above</u> statewide Median
# of providers	9	1
Not present in 2011	0.0%	0.0%
Higher rate in 2011	33.3%	0.0%
Lower rate in 2011	33.3%	100.0%
Same rate in 2011	33.3%	0.0%

6.9. *Providers Who Had Higher Than The Median Portion Of Not Medically Indicated C-sections In The Initial Period Were All Likely To Decrease Their C-section Portions of Non-Medically Indicated Procedures In District 9.*

In District 9 all providers had baseline portions of C-sections that were not medically indicated above the statewide median and they reduced their rates in 2011. See Table 6.9.

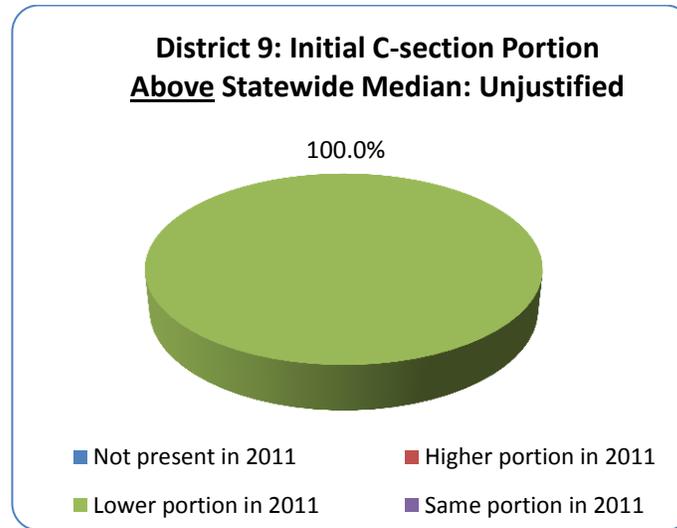


Table 6.9. Provider Portions for C-sections Not Medically Indicated according to the Statewide Median (excludes providers only present in 2011)

Provider Not Medically Indicated C-section Portion Change from Jan-June 2010 to July-Dec 2011 (excludes providers only present in 2011)		
Median portion=13.3%	Initial not medically indicated C-section rate <u>below or equal</u> to statewide Median	Initial not medically indicated C-section rate <u>above</u> statewide Median
# of providers	0	4
Not present in 2011	n/a	0.0%
Higher portion in 2011	n/a	0.0%
Lower portion in 2011	n/a	100.0%
Same portion in 2011	n/a	0.0%

Findings for District 9

The overall and the per-provider rate of C-sections declined slightly between 2010 and 2011 in District 9. However, there was a substantial reduction in the portion of these C-sections that were not medically justified, both overall and on a per provider basis.

District 10

Section 1.10. Total C-section Rates by District

In District 10, Medicaid providers performed 1,719 deliveries from January to June 2010 and 1,603 deliveries from July to December 2011. This small decrease in the total number of deliveries in District 10 represents a -6.7% change. Among all deliveries, there were 139 C-sections performed between 37 and 39 weeks gestation at baseline and 173 at follow-up. Once the maternity performance improvement project was implemented in the District in 2011 there was an increase in the rate of C-sections compared with the baseline rate in 2010, from 8.1% to 10.8% representing a 33.3% change. See Table 1.10.

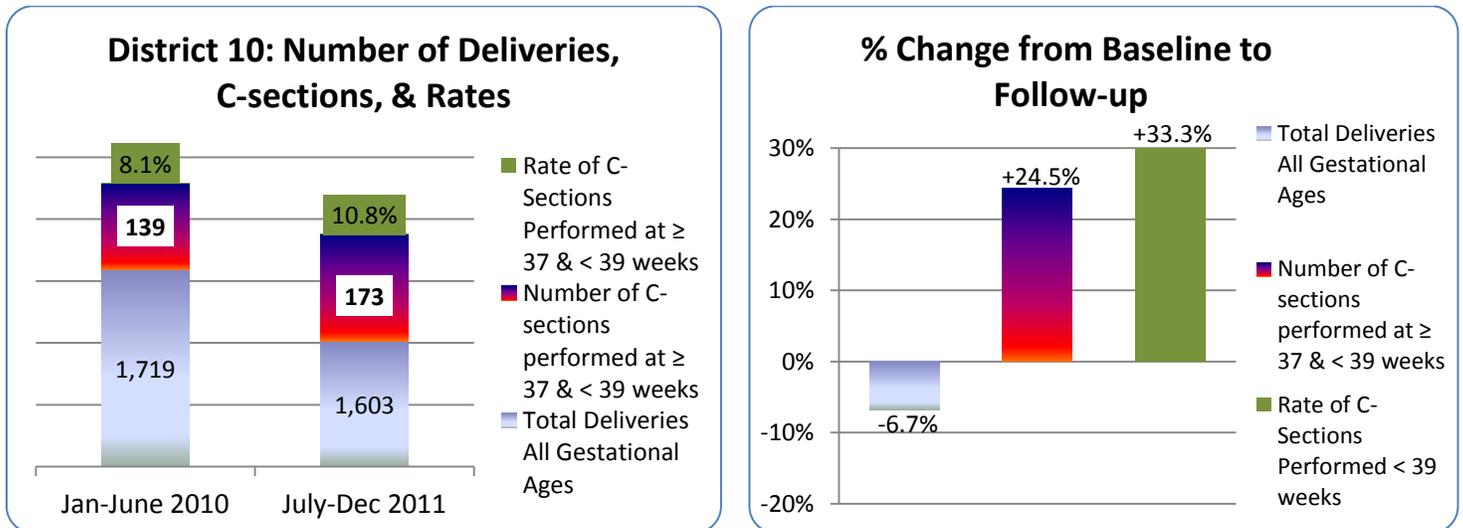


Table 1.10. Overall Deliveries, Total C-sections and Rates for District 10

District 10	Jan-June 2010	July-Dec 2011	% Change
Total Deliveries	1,719	1,603	-6.7%
C-sections	139	173	+24.5%
C-section Rate	8.1%	10.8%	+33.3%

2.10. Average C-section Rates for Participating Providers Decreased in District 10.

In District 10 the number of providers who performed deliveries from the baseline to the follow-up period increased slightly. Among the 35 Medicaid maternity providers in the baseline period there was an 8.8% (Std. Dev. ± 6.8) C-section rate and at follow-up the rate per provider increased to 10.1% (Std. Dev. ± 7.0), a 14.8% change. See Table 2.10.

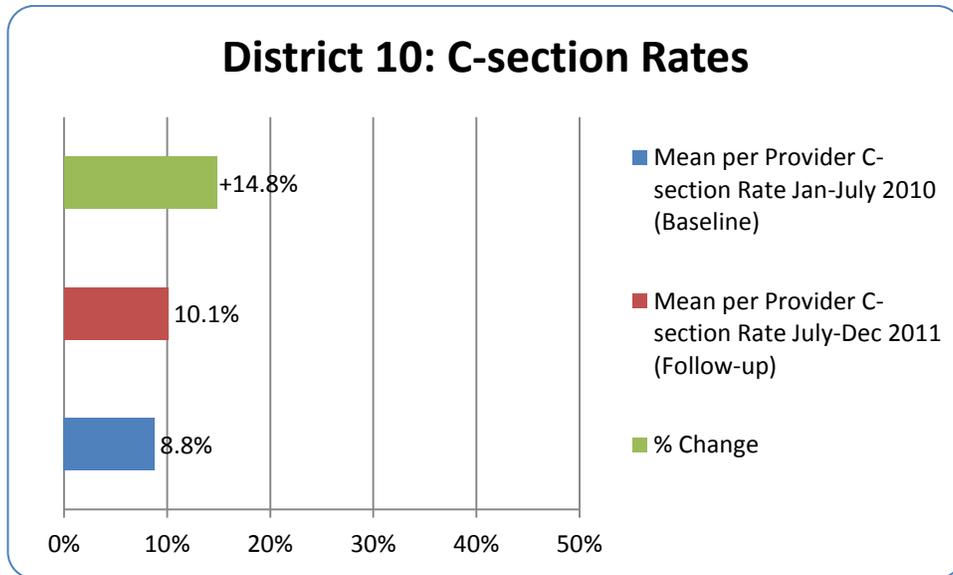


Table 2.10. Provider C-section Rates for District 10

District 10: Number of Providers with Deliveries	Number & Rate	% Change
# Providers Jan-June 2010	35	+2.9%
# Providers July-Dec 2011 (Follow-up)	36	
Provider C-section Rates		
Mean (\pm Std. Dev.) per Provider C-section Rate Jan-July 2010 (Baseline)	8.8% (± 6.8)	+14.8
Mean (\pm Std. Dev.) per Provider C-section Rate July-Dec 2011 (Follow-up)	10.1% (± 7.0)	

3.10. Portions of Non-Medically Indicated C-sections Decreased in the District 10.

Among the C-sections performed that were not medically indicated between 37 and 39 weeks gestation, the number of these procedures from baseline to the follow-up period decreased substantially in District 10, from 26 to just 8. The portion of C-sections performed that were not indicated medically at baseline was 18.7% and at follow-up the portion decreased to 4.6%. This change observed from baseline to follow-up represents a -75.4% change in the portion of C-sections that were not justified medically in District 10. See Table 3.10.

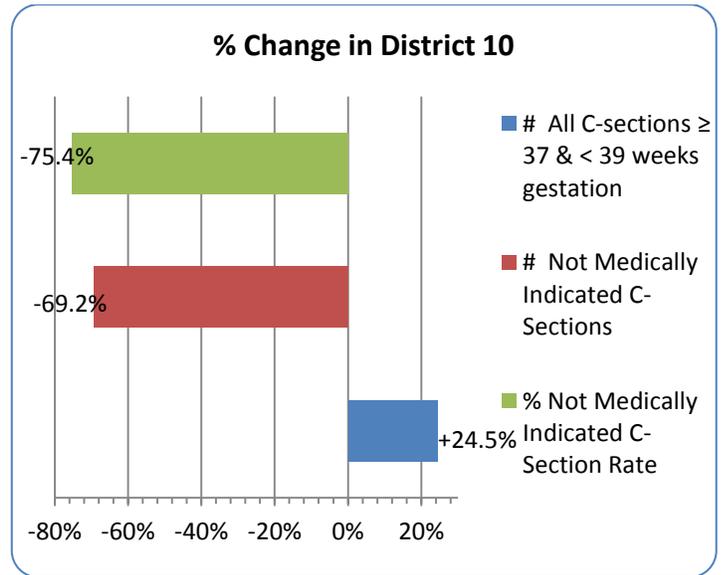
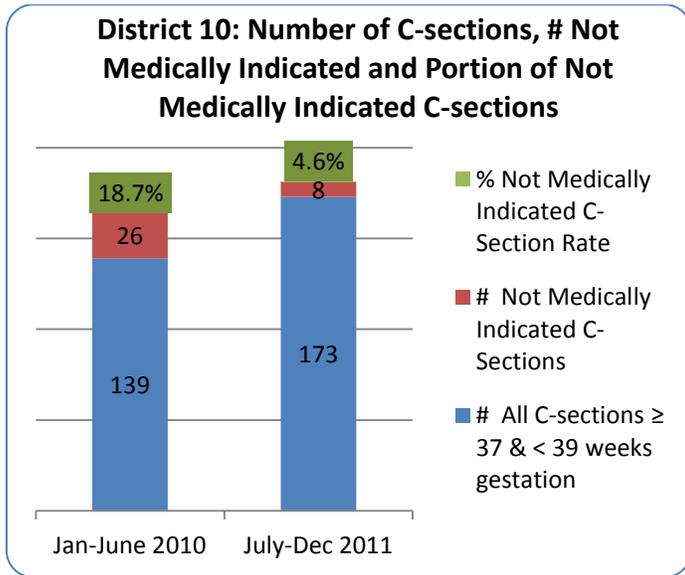


Table 3.10. Number of all C-sections performed between 37 and 39 weeks, Number and portion of C-sections NOT medically indicated in District 10.

C-sections Not Medically Justified	Jan-June 2010	July-Dec 2011	% Change
# All C-sections ≥37 & <39 weeks gestation	139	173	+24.5%
# Not Medically Indicated C-sections	26	8	-69.2%
% Not Medically Indicated C-sections	18.7%	4.6%	-75.4%

4.10. Average Portion of C-sections Not Medically Indicated per Participating Provider Decreased in District 10.

In District 10 the number of providers performing C-sections between 37 and 39 weeks that were not medically indicated increased slightly from the baseline period to the follow-up period from 32 to 33. The portion of unjustified procedures per provider decreased from 16.8% at baseline to 3.8% at follow-up. This represents a -77.4% change in the portion of C-sections that were not medically indicated. This reduction in the average per provider portion was statistically significant at the .01 level according to the t-test analysis. See Table 4.10.

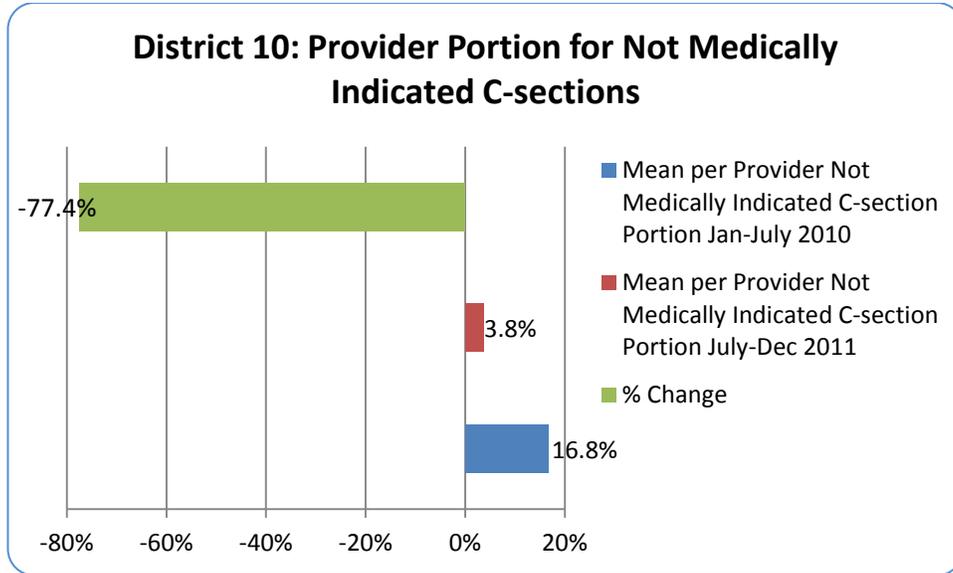


Table 4.10. Number of Providers Performing C-sections between 37 and 39 weeks Gestation that Were Not Medically Indicated

Number of Providers		% Change
# Providers Jan-June 2010	32	+3.1%
# Providers July-Dec 2011	33	
Average Portion per Provider		
Mean (±Std. Dev.) per Provider Not Medically Indicated C-section Portion Jan-July 2010	16.8% (±25.0)	-77.4%
Mean (±Std. Dev.) per Provider Not Medically Indicated C-section Portion July-Dec 2011	3.8%*** (±10.7)	

***p < .01 t-test

5.10. Providers Who Had Higher Than The Median Rate Of C-sections In The Initial Period Were More Likely to Reduce Their C-section Rates, Compared To Providers With Relatively Low Rates Initially, For District 10. See Table 5.10.

In District 10, 20 of the 35 providers performed C-sections at a procedure rate below or equal to the statewide median of 7.3%. Most (70%) were more likely to have a higher rate during the follow-up period in 2011; however, the rest reduced their C-section rates in 2011. Among the remaining 15 providers whose C-section rate was above the statewide median in 2010 sixty percent lowered their rates. See Table 5.10.

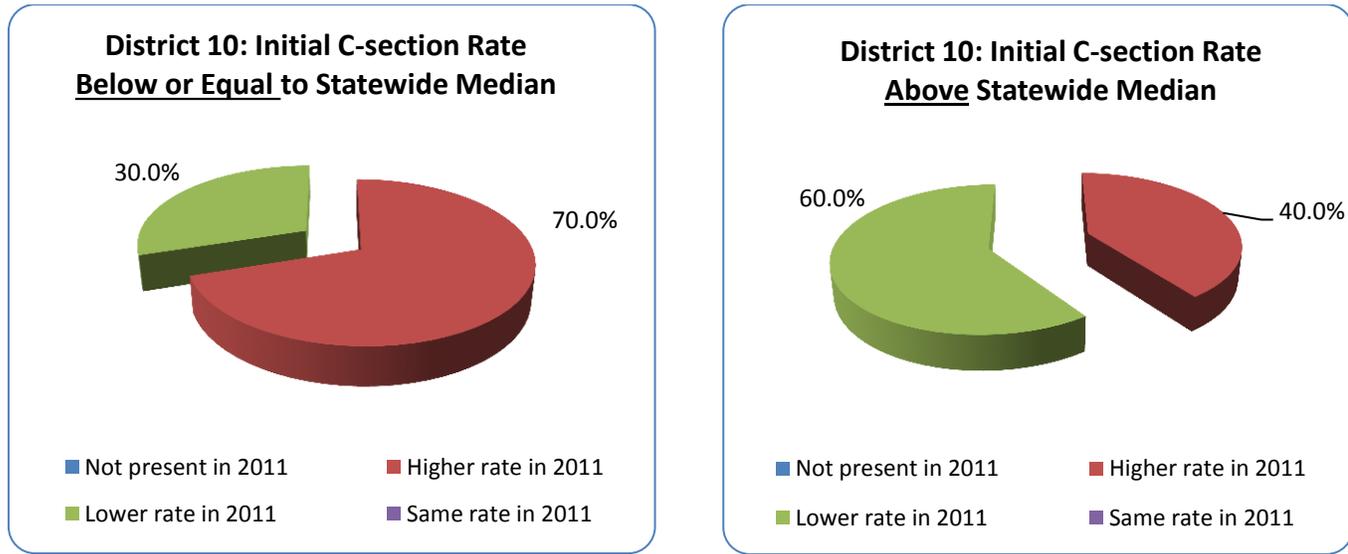


Table 5.10.

Provider C-section Rate Change from Jan-June 2010 to July-Dec 2011 in Relation to the Median (excludes providers only present in 2011)		
Statewide Median Rate=7.3%	Initial C-section rate <u>below or equal</u> to statewide Median	Initial C-section rate <u>above</u> statewide Median
# of providers	20	15
Not present in 2011	0.0%	0.0%
Higher rate in 2011	70.0%	40.0%
Lower rate in 2011	30.0%	60.0%
Same rate in 2011	0.0%	0.0%

6.10. *Providers Who Had Higher Than The Median Portion Of C-sections That Were Not Medically Indicated In The Initial Period Were More Likely To Decrease Their C-section Portions For Non-Medically Indicated Procedures, Compared with Providers Who initially Had Lower than Median-based Rates In District 10.*

In District 10 almost three-quarters (73.7%) of providers whose portion of C-sections that were not justified was below or equal to the statewide median of 13.3% maintained them in the follow-up period. Another 15.8% percent of these providers showed further reductions and 10.5% increased the portion of C-sections that was not medically indicated in 2011. Almost all (92.9%) of the providers that initially had unjustified C-section procedure portions above the statewide median had reductions in 2011. See Table 6.8.

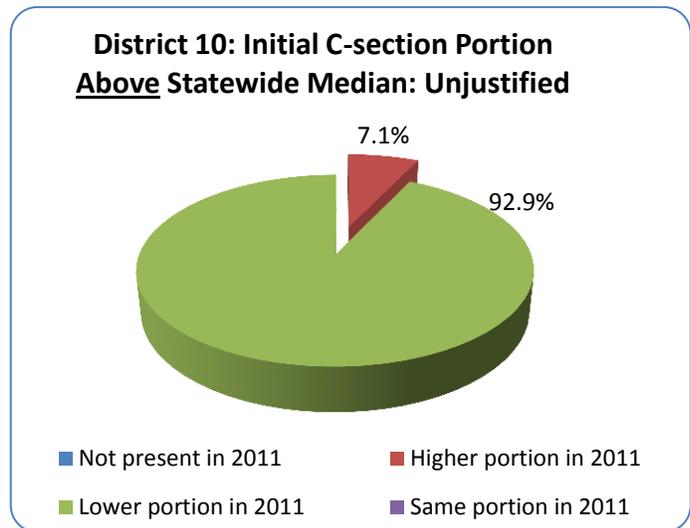
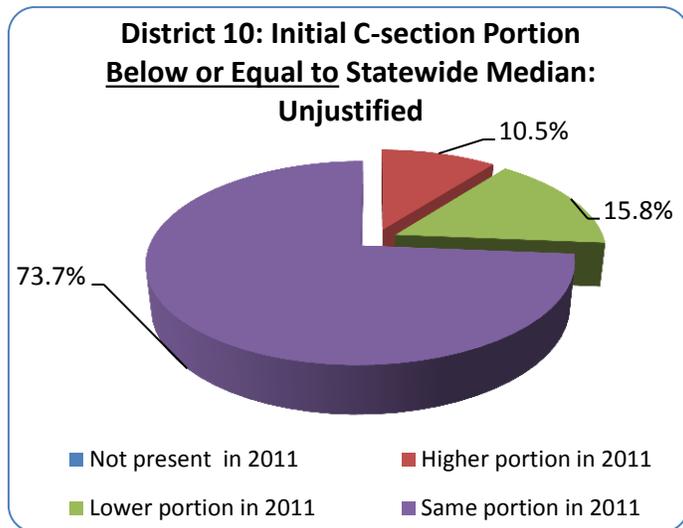


Table 6.10. Provider Portions for C-sections Not Medically Indicated according to the statewide Median (excludes providers only present in 2011)

Provider Not Medically Indicated C-section Portion Change from Jan-June 2010 to July-Dec 2011 (excludes providers only present in 2011)		
Median portion=13.3%	Initial not medically indicated C-section portion <u>below or equal</u> to statewide Median	Initial not medically indicated C-section portion <u>above</u> statewide Median
# of providers	19	14
Not present in 2011	0.0%	0.0%
Higher portion in 2011	10.5%	7.1%
Lower portion in 2011	15.8%	92.9%
Same portion in 2011	73.7%	0.0%

Findings for District 10

The overall and the per-provider rate of C-sections increased between 2010 and 2011 in District 10. However, there was a marked reduction in the portion of these C-sections that were not medically justified, overall and on a per provider basis.

District 11

Section 1.11. Among all deliveries C-section Rates Declined Slightly in the Post Period in District 11.

In District 11, Medicaid providers performed 610 deliveries from January to June 2010 and 742 deliveries from July to December 2011. This increase in the total number of deliveries in District 11 represents a 21.6% change. Among all deliveries, there were 41 C-sections performed between 37 and 39 weeks gestation in the baseline period and 47 during the follow-up period. Once the program was implemented in the District in 2011 there was a small reduction in the rate of C-sections among all deliveries compared with the baseline rate in 2010, from 6.7% to 6.3%. See Table 1.11.

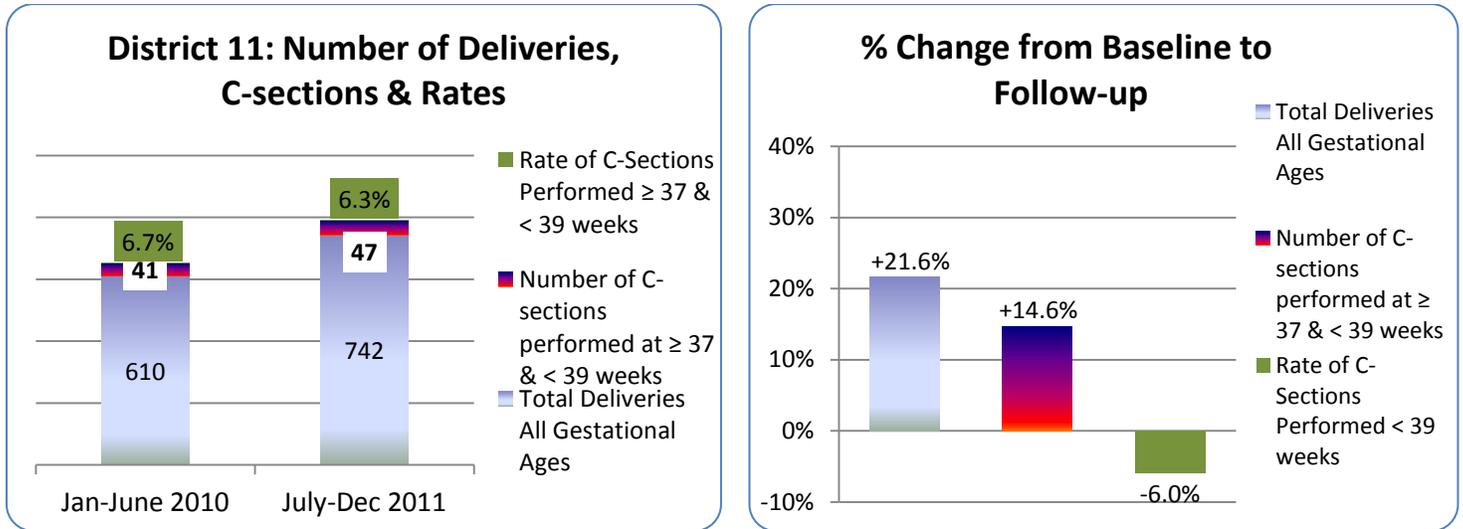


Table 1.11. Overall Deliveries, Total C-sections and Rates for District 11

District 11	Jan-June 2010	July-Dec 2011	% Change
Total Deliveries	610	742	+21.6%
C-sections	41	47	+14.6%
C-section Rate	6.7%	6.3%	-6.0%

2.11. Average C-section Rates for Participating Providers Decreased in District 11.

In District 11 there was a 3.2% decrease in the number of providers with deliveries from the baseline to the follow-up period. Among the 17 Medicaid maternity providers in the baseline period, there was an average C-section rate of 9.1% (Std. Dev. $\pm 11.9\%$) per provider. Once the Maternity Improvement Program was implemented in the District, the average C-section rate per provider dropped to 6.9% (Std. Dev. $\pm 6.7\%$) among all deliveries. This represents a 24% reduction in the C-section rate per provider from baseline to follow-up. See Table 2.11.

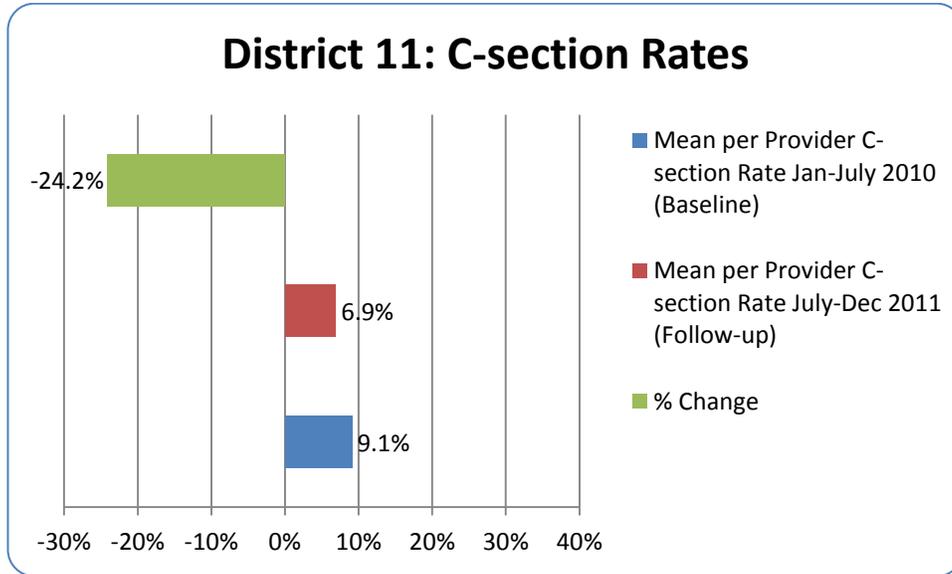


Table 2.11. Provider C-section Rates for District 11

District 11: Number of Providers with Deliveries at all Gestational Ages	Number & Rate	% Change
# Providers Jan-June 2010 (Baseline)	17	-11.8%
# Providers July-Dec 2011 (Follow-up)	15	
Provider C-section Rates		
Mean (\pm Std. Dev.) per Provider C-section Rate Jan-July 2010 (Baseline)	9.1% (± 11.9)	-24.2%
Mean (\pm Std. Dev.) per Provider C-section Rate July-Dec 2011 (Follow-up)	6.9% (± 6.7)	

3.11. Portions of Non-Medically Indicated C-sections Decreased in the District 11.

As mentioned above, there was a small increase in the number of C-sections performed between 37 and 39 weeks. Among those C-sections performed that were not medically indicated, there was a 33% reduction in the number performed from the baseline to the follow-up period, 18 and 12, respectively. The portion of C-sections performed that were not indicated medically out of all C-sections performed at baseline was 43.9%; at follow-up this portion declined to 25.5%. This rate change observed from baseline to follow-up represents a 41.9% reduction once the intervention was implemented in District 11. See Table 3.11.

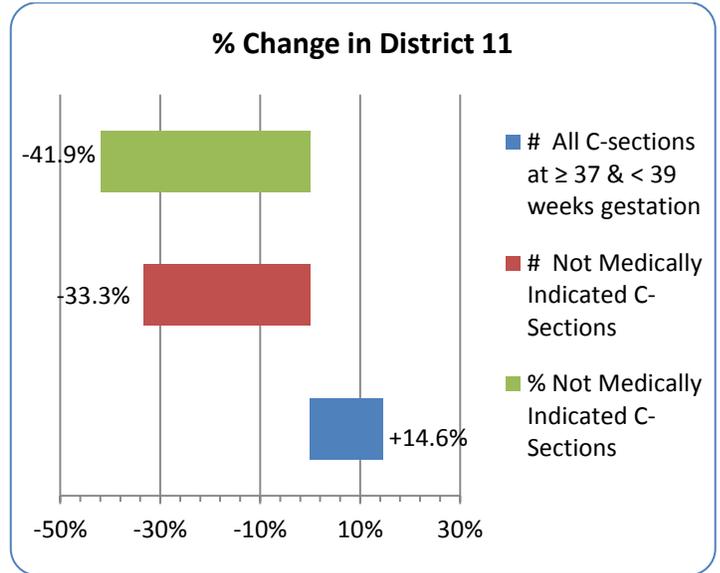
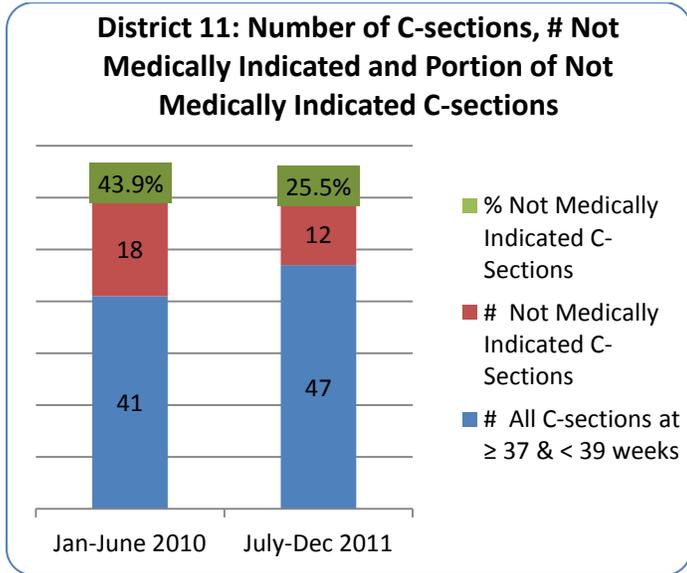


Table 3.11. Number of all C-sections performed between 37 and 39 weeks, Number and Portion of C-sections NOT medically indicated in District 11.

C-sections Not Medically Justified	Jan-June 2010	July-Dec 2011	% Change
# All C-sections ≥37 & <39 weeks gestation	41	47	+14.6%
# Not Medically Indicated C-sections	18	12	-33.3%
% Not Medically Indicated C-sections	43.9%	25.5%	-41.9%

4.11. Average Portion of C-sections Not Medically Indicated per Participating Provider Decreased in District 11.

The number of providers performing C-sections between 37 and 39 weeks declined from January to July 2010 to the follow-up period from 14 to 12. The average per provider portion of C-sections which were not medically indicated declined by 21.5% (44.0% to 22.5%). This represents a percent change of 48.9% from baseline to the follow-up period in 2011. This average per provider rate reduction was statistically significant at the .05 level according to the t-test analysis. See Table 4.11.

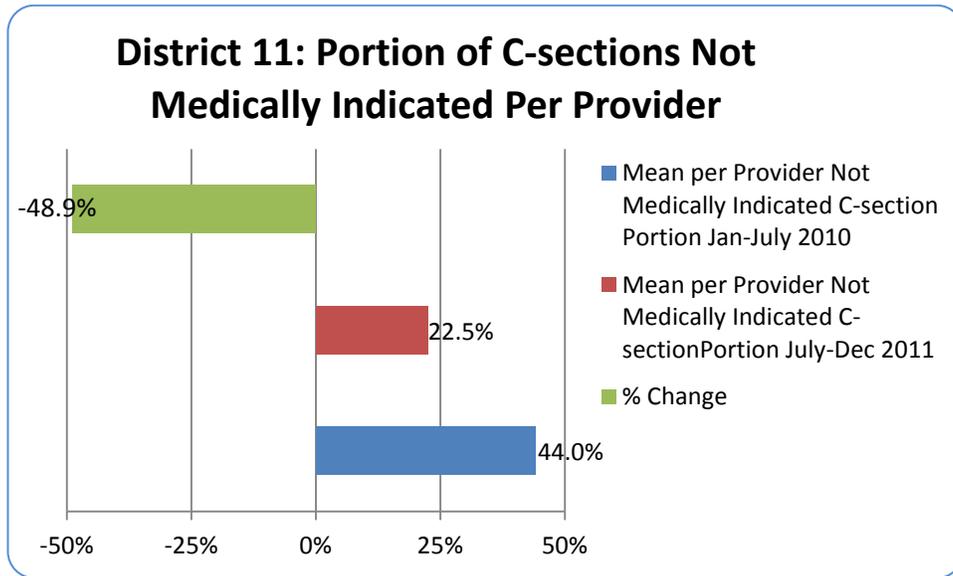


Table 4.11. Number of Providers Performing C-sections between 37 and 39 Weeks Gestation that Were Not Medically Indicated

Number of Providers Performing C-sections		% Change
# Providers Jan-June 2010	14	-14.3%
# Providers July-Dec 2011	12	
Average Portion per Provider		
Mean (±Std. Dev.) per Provider Not Medically Indicated C-section Portion Jan-July 2010	44.0% (±43.8)	-48.9%
Mean (±Std. Dev.) per Provider Not Medically Indicated C-section Portion July-Dec 2011	22.5%** (±8.6)	

**p < .05 t-test

5.11. *Providers Who Had Higher Than the Median Rate Of C-sections In The Initial Period Were More Likely to Reduce Their C-section Rates, Compared To Providers With Relatively Low Rates Initially, For District 11.*

In District 11 providers (63.6%) who performed C-sections and had a procedure rate below or equal to the statewide median of 7.3% were more likely to increase their rates in 2011, but the remaining 36.4% further reduced their C-section rates in 2011. Most (83.3%) providers that initially had C-section rates above the statewide median lowered their rates in 2011. See Table 5.11.

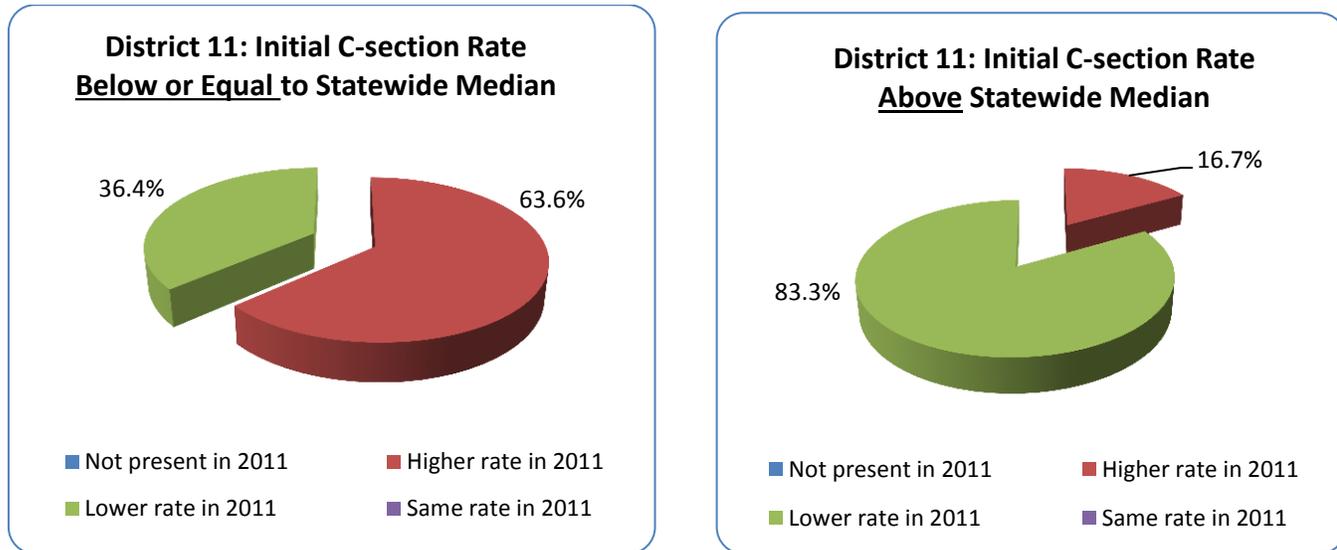


Table 5.11.

Provider C-section Rate Change from Jan-June 2010 to July-Dec 2011 In Relation to the Median (excludes providers only present in 2011)		
Statewide Median Rate=7.3%	Initial C-section rate <u>below or equal to</u> statewide Median	Initial C-section rate <u>above</u> statewide Median
# of providers	11	6
Not present in 2011	0.0%	0.0%
Higher rate in 2011	63.6%	16.7%
Lower rate in 2011	36.4%	83.3%
Same rate in 2011	0.0%	0.0%

6.11. *Providers Who Had Higher Than The Median Portion Of Not Medically Indicated C-sections In The Initial Period Were More Likely To Decrease Their Portions, Compared with Providers Who initially Had Lower than Median-based Portions In District 11.*

In District 11 providers who performed C-sections that were not justified who had a procedure portion below or equal to the statewide median of 13.3% further reduced (66.7%) or maintained (33.3%) their low portions during the follow-up period in 2011. A large majority (87.5%) of providers that initially had unjustified C-section portions above the statewide median lowered their portions in 2011. A relatively small proportion (12.5%) of the providers whose baseline portions were above the median had even higher portions of C-sections that were not medically justified during the intervention period. See Table 6.11.

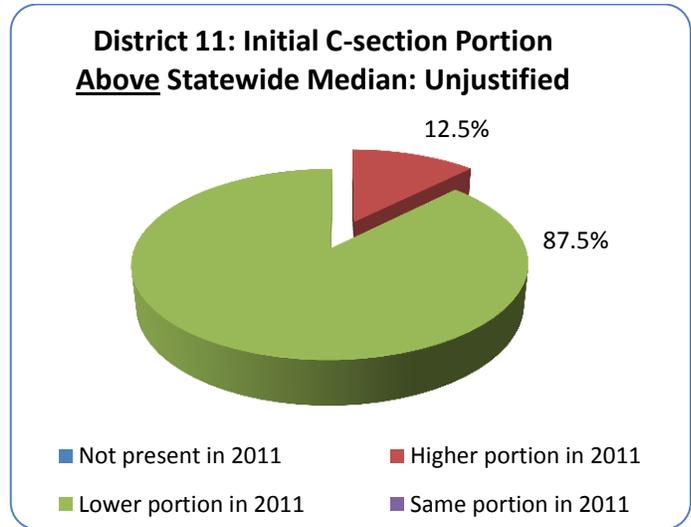
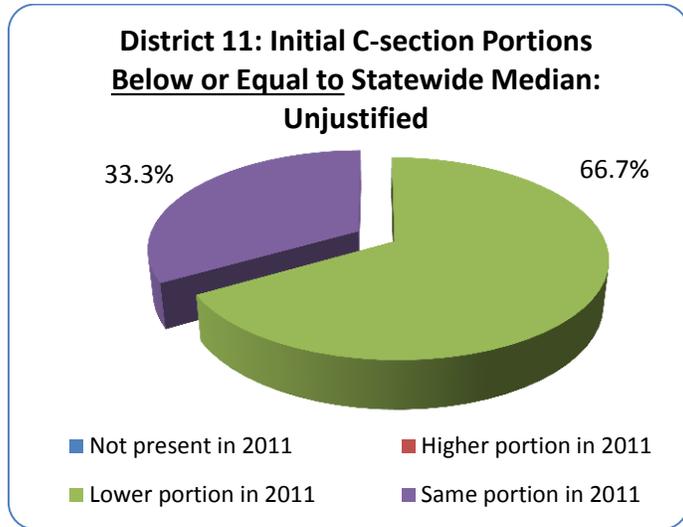


Table 6.11. Provider Rates for C-sections Not Medically Indicated according to the statewide Median (excludes providers only present in 2011)

Provider Not Medically Indicated C-section Portion Change from Jan-June 2010 to July-Dec 2011 (excludes providers only present in 2011)		
Median portion=13.3%	Initial not medically indicated C-section rate <u>below or equal</u> to statewide Median	Initial not medically indicated C-section rate <u>above</u> statewide Median
# of providers	6	8
Not present in 2011	0.0%	0.0%
Higher portion in 2011	0.0%	12.5%
Lower portion in 2011	66.7%	87.5%
Same portion in 2011	33.3%	0.0%

Summary of Findings for District 11

There was a small decline in the C-section rate among women at 37 to 39 weeks gestation after the PIP intervention. There was also a decline in the average provider C-section rate and a marked reduction in the average portion of each provider’s C-sections that were not medically indicated. District representatives reported that physicians perceived a greater risk at 39 weeks 6 days compared with 38 weeks 6 days gestation among some of their patients.

District 12

Section 1.12. Overall C-section Rates Declined in the Post Period in District 12.

In District 12, Medicaid providers performed 1,177 deliveries from January to June 2010 and 1,001 deliveries from July to December 2011. This decrease in the total number of deliveries in District 12 represents a 15.0% change. Among all deliveries, there were 168 C-sections performed between 37 and 39 weeks gestation in the baseline period and 123 at follow-up. Once the program was implemented in the District in 2011 there was a reduction in the rate of C-sections compared with the baseline rate in 2010, 14.3% and 12.3%, respectively, representing a -14.0% change. See Table 1.12.

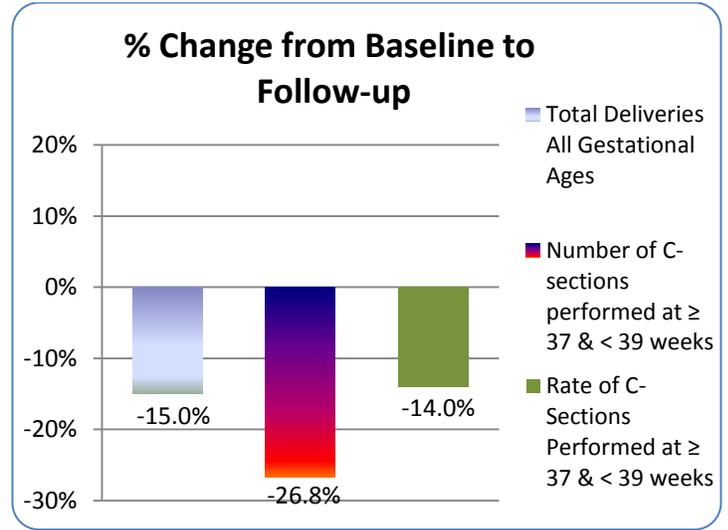
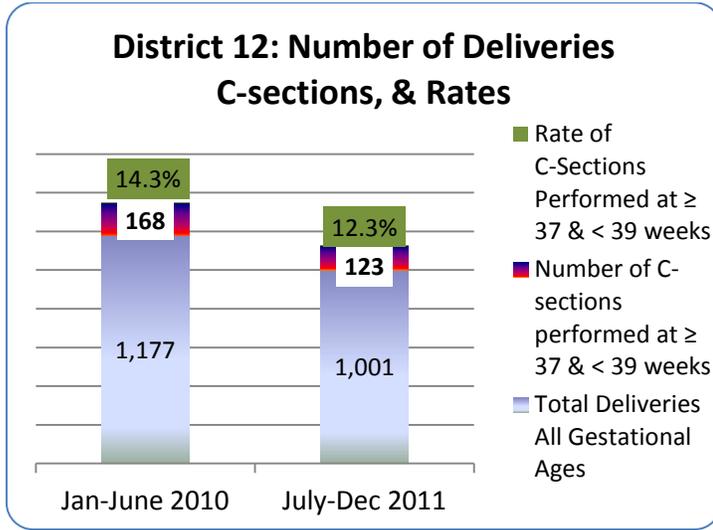


Table 1.12. Overall Deliveries, Total C-sections and Rates for District 12

District 12	Jan-June 2010	July-Dec 2011	% Change
Total Deliveries	1,177	1,001	-15.0%
C-sections	168	123	-26.8%
C-section Rate	14.3%	12.3%	-14.0%

2.12. Average C-section Rates for Participating Providers Decreased in District 12.

In District 12 the number of providers with deliveries from the baseline to the follow-up period declined from 25 to 20. Among the Medicaid maternity providers in the baseline period there was a 15.9% (Std. Dev. ± 8.4) C-section rate and at follow-up the rate per provider decreased to 11.8% (Std. Dev. ± 9.1). In District 12 the C-section rate per provider from changed by -25.8% once the Maternity Improvement Program was implemented. See Table 2.12.

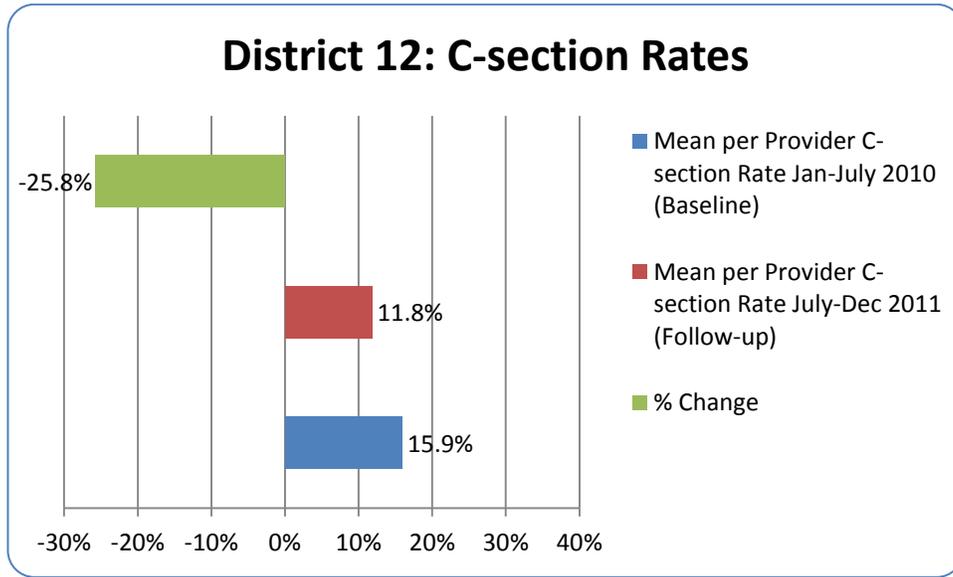


Table 2.12. Provider C-section Rates for District 12

District 12: Number of Providers with Deliveries at All Gestational Ages	Number & Rate	% Change
# Providers Jan-June 2010	25	-20.0%
# Providers July-Dec 2011 (Follow-up)	20	
Provider C-section Rates		
Mean (\pm Std. Dev.) per Provider C-section Rate Jan-July 2010 (Baseline)	15.9% (± 8.4)	-25.8%
Mean (\pm Std. Dev.) per Provider C-section Rate July-Dec 2011 (Follow-up)	11.8% (± 9.1)	

3.12. *The Portion of Non-Medically Indicated C-sections Decreased in the District 12.*

Among the C-sections performed that were not medically indicated between 37 and 39 weeks, the number from baseline to the follow-up period decreased dramatically from 33 to just 7 procedures in District 12. The portion of C-sections performed that were not indicated medically at baseline was 19.6% and at follow-up the rate decreased to 5.7%. This portion change observed from baseline to follow-up represents a -70.9% change in C-sections that were not justified medically in District 12. See Table 3.12.

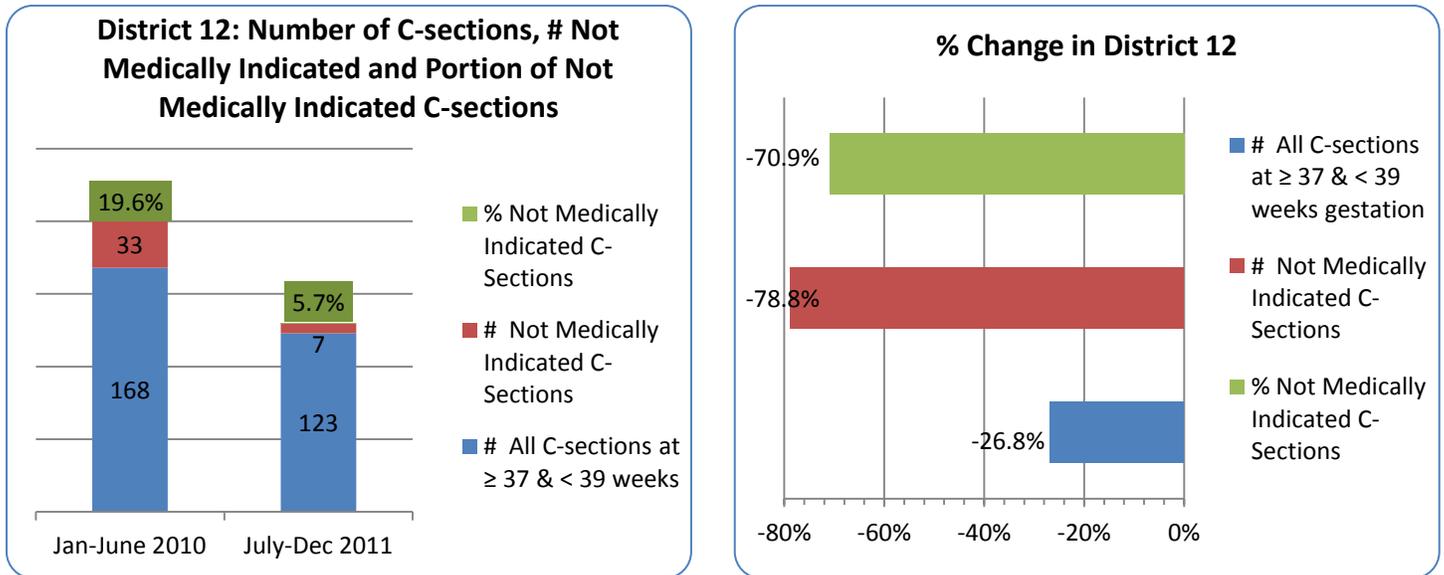


Table 3.12. Number of all C-sections performed between 37 and 39 weeks, Number and portion of C-sections NOT medically indicated in District 12.

C-sections Not Medically Justified	Jan-June 2010	July-Dec 2011	% Change
# All C-sections ≥37 & <39 weeks gestation	168	123	-26.8%
# Not Medically Indicated C-sections	33	7	-78.8%
% Not Medically Indicated C-sections	19.6%	5.7%	-70.9%

4.12. Average Portion of C-sections Not Medically Indicated per Participating Provider Decreased in District 12.

In District 12 the number of providers performing C-sections between 37 and 39 weeks declined from the baseline period to the follow-up period from 26 to 22. The average portion of C-sections not medically indicated per participating provider decreased from 13.7% at baseline to 5.6% at follow-up. This average per provider portion reduction was statistically significant at the .10 level according to the t-test analysis. See Table 4.12.

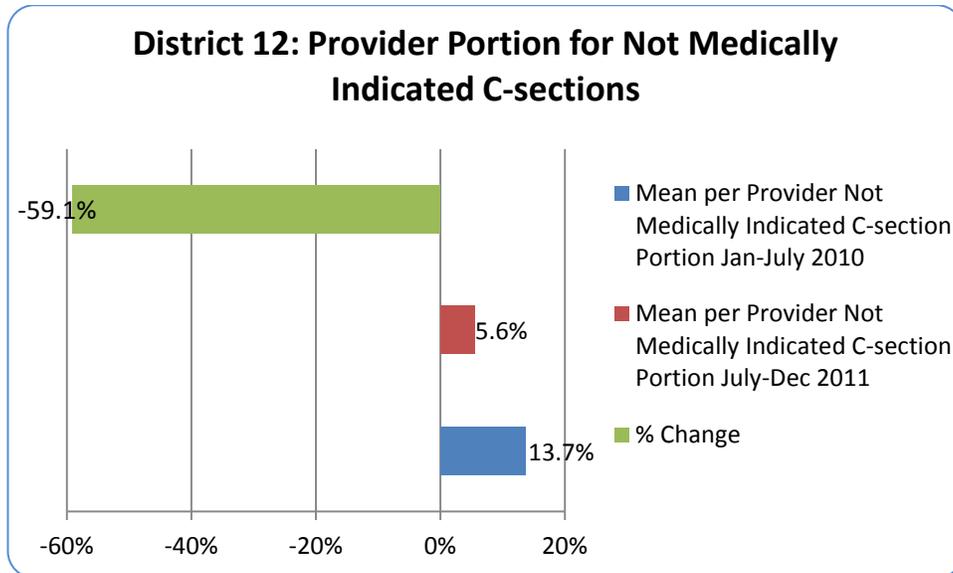


Table 4.12. Number of Providers Performing C-sections between 37 and 39 Weeks Gestation and the Proportion that Were Not Medically Indicated

Number of Providers Performing C-sections		% Change
# Providers Jan-June 2010	26	-15.4%
# Providers July-Dec 2011	22	
Average Portion per Provider		
Mean (±Std. Dev.) per Provider Not Medically Indicated C-section Portion Jan-July 2010	13.7% (±19.1)	-59.1%
Mean (±Std. Dev.) per Provider Not Medically Indicated C-section Portion July-Dec 2011	5.6%* (±12.6)	

*p < .10 t-test

5.12. *Providers Who Had Higher Than the Median Rate Of C-sections In The Initial Period Were More Likely to Reduce Their C-section Rates, Compared To Providers With Relatively Low Rates Initially, For District 12.*

In District 12 providers who performed C-sections and had a procedure rate below or equal to the statewide median of 7.3% were more likely to have higher rates (60.0%) during the follow-up period in 2011. Forty percent reduced their initial C-section rates in 2011. More than one-half (52.4%) providers that initially had C-section rates above the statewide median lowered their rates in 2011. One-third of the providers were not represented in the data for follow-up. See Table 5.12.

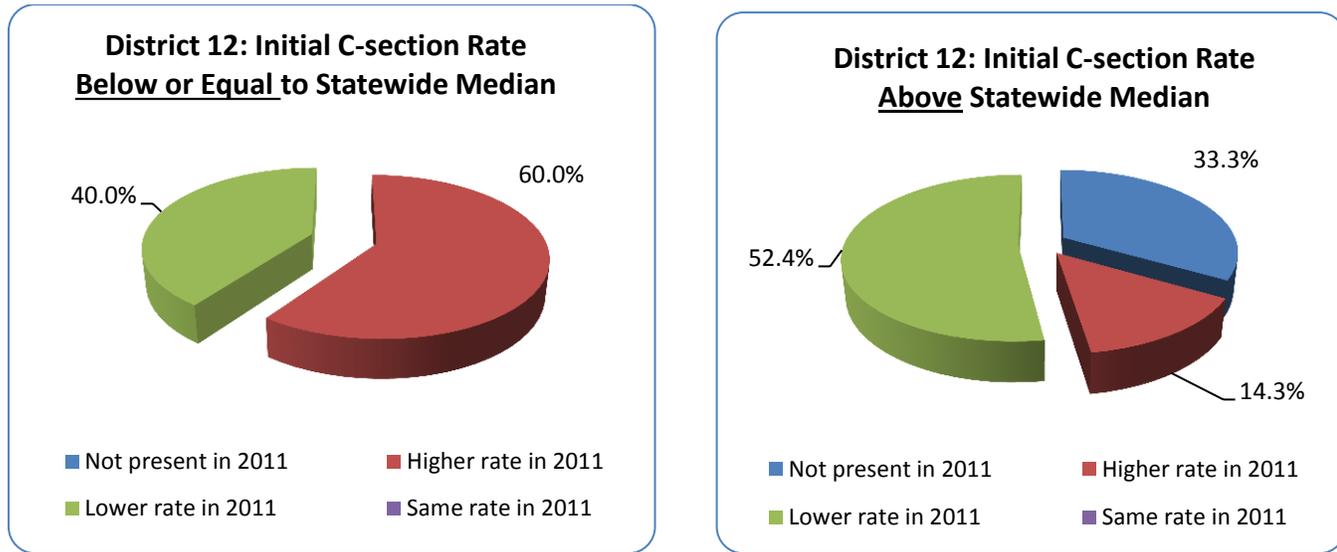


Table 5.12.

Provider C-section Rate Change from Jan-June 2010 to July-Dec 2011 In Relation to the Median (excludes providers only present in 2011)		
Statewide Median Rate=7.3%	Initial C-section rate <u>below or equal</u> to statewide Median	Initial C-section rate <u>above</u> statewide Median
# of providers	5	21
Not present in 2011	0.0%	33.3%
Higher rate in 2011	60.0%	14.3%
Lower rate in 2011	40.0%	52.4%
Same rate in 2011	0.0%	0.0%

6.12. Providers Who Had Higher Than The Median Portion Of Not Medically Indicated C-sections In The Initial Period Were More Likely To Lower Their C-section Portions of Not Medically Indicated Procedures, Compared with Providers Who initially Had Lower Median-based Rates In District 12.

In District 12 more than one-half (53.3%) of providers who performed C-sections that were not justified medically and had an initial procedure portion below or equal to the statewide median of 13.3% were more likely to maintain their current rates than lower (6.7%) or increase (13.3%) their rates in 2011. More than one-quarter (26.7%) of these providers were not represented in the data at follow-up. Most (60.0%) of the providers that initially had unjustified C-section portions above the statewide median reduced their rates in 2011. Thirty percent of these providers were not represented in the data for follow-up. See Table 6.12.

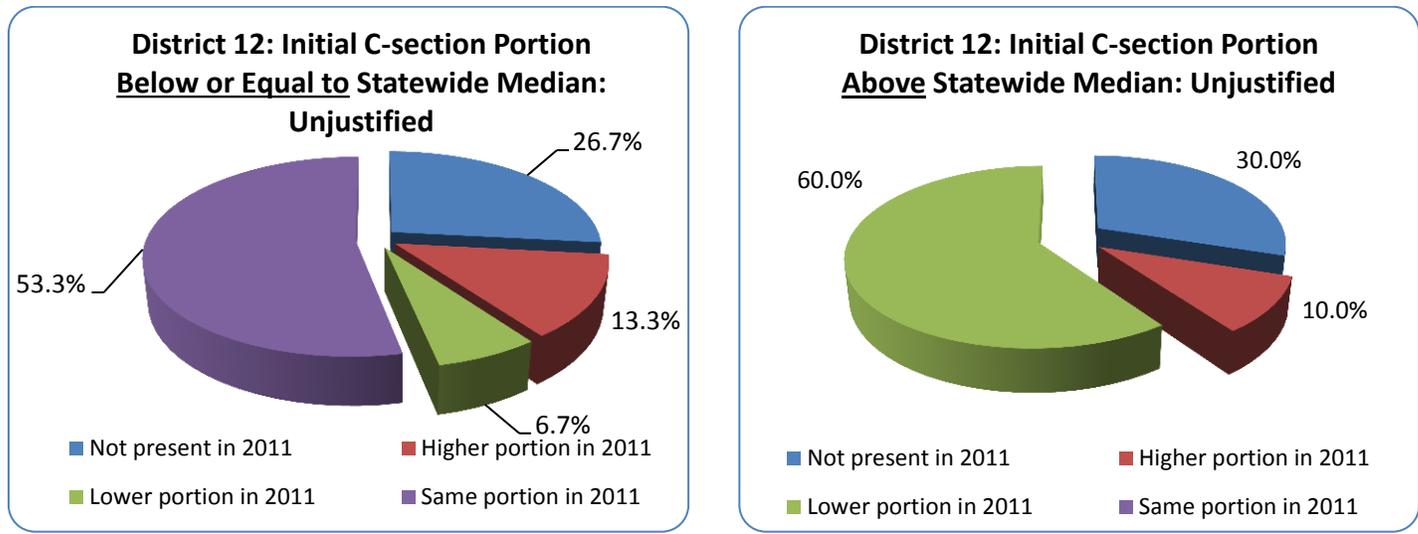


Table 6.12. Provider Portions for C-sections Not Medically Indicated according to the statewide Median (excludes providers only present in 2011)

Provider Not Medically Indicated C-section Portion Change from Jan-June 2010 to July-Dec 2011 (excludes providers only present in 2011)		
Median portion=13.3%	Initial not medically indicated C-section portion <u>below or equal</u> to statewide Median	Initial not medically indicated C-section portion <u>above</u> statewide Median
# of providers	15	10
Not present in 2011	26.7%	30.0%
Higher portion in 2011	13.3%	10.0%
Lower portion in 2011	6.7%	60.0%
Same portion in 2011	53.3%	0.0%

Summary of Findings for District 12

There was a small decline in the C-section rate among women at 37-39 weeks gestation after the PIP intervention. There was also a moderate decline in the average provider C-section rate and a substantial reduction in the average portion of each provider’s C-sections that were not medically indicated. Twenty-seven percent of the providers who had high portions of not medically justified C-sections stopped providing services in 2011 in the district.

District 13

Section 1.13. *Total C-section Rates by District*

In District 13, Medicaid providers performed 320 deliveries from January to June 2010 and 299 deliveries from July to December 2011. Among all deliveries, there were 51 C-sections performed between 37 and 39 weeks gestation during the baseline period and at follow-up 57 were performed. Once the program was implemented in the District in 2011 there was an increase in the rate of C-sections performed at these gestational ages compared with the baseline rate in 2010 from 15.9% to 19.1%, for a 20.1% change. See Table 1.13.

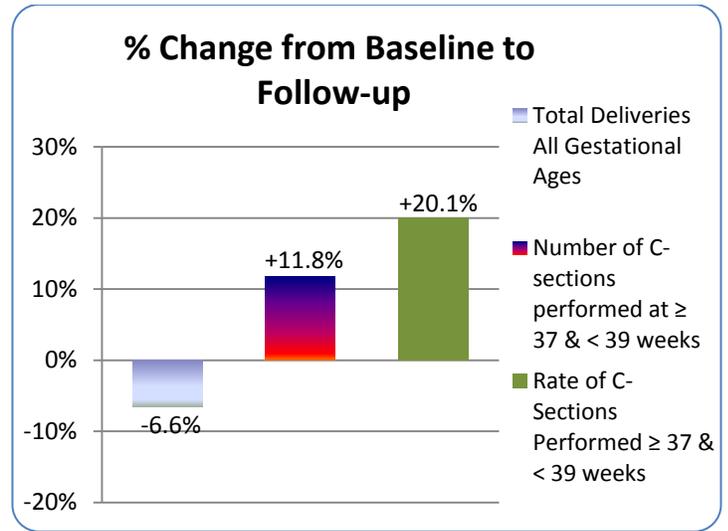
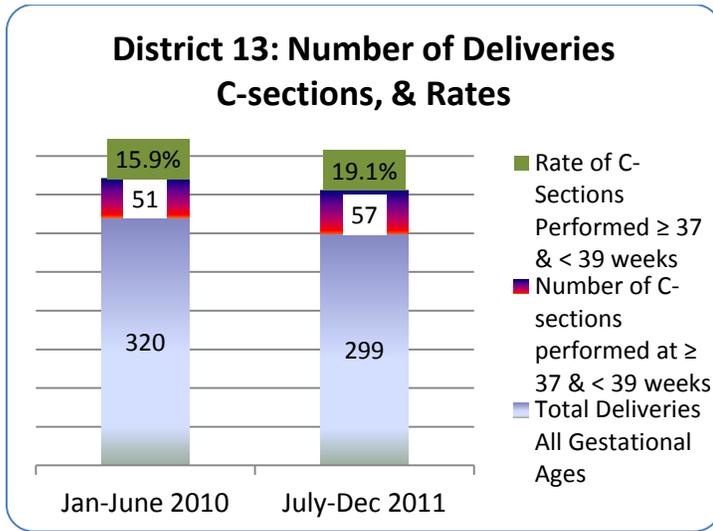


Table 1.13. Overall Deliveries, Total C-sections and Rates for District 13

District 13	Jan-June 2010	July-Dec 2011	% Change
Total Deliveries	320	299	-6.6%
C-sections	51	57	+11.8%
C-section Rate	15.9%	19.1%	+20.1%

2.13. Average C-section Rates for Participating Providers Decreased in District 13.

In District 13 the number of providers with deliveries from the baseline to the follow-up period increased slightly from 19 to 20. Among the Medicaid maternity providers in the baseline period there was a 32.6% (Std. Dev. ± 43.6) C-section rate and at follow-up the rate per provider decreased to 20.2% (Std. Dev. ± 18.6). This represents a -38% change in the C-section rate per provider from baseline to follow-up. See Table 2.13.

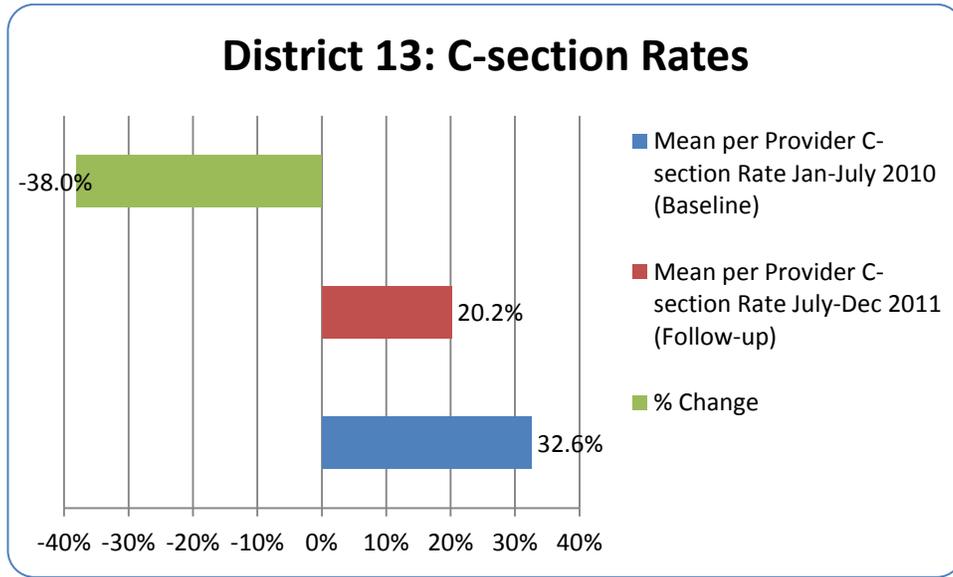


Table 2.13. Provider C-section Rates for District 13

District 13: Number of Providers with Deliveries	Number & Rate	% Change
# Providers Jan-June 2010	19	+5.3%
# Providers July-Dec 2011 (Follow-up)	20	
Provider C-section Rates		
Mean (\pm Std. Dev.) per Provider C-section Rate Jan-July 2010 (Baseline)	32.6% (± 43.6)	-38.0%
Mean (\pm Std. Dev.) per Provider C-section Rate July-Dec 2011 (Follow-up)	20.2% (± 18.6)	

3.13. *The Portion of Non-Medically Indicated C-sections Decreased in District 13.*

Among the C-sections performed that were not medically indicated between 37 and 39 weeks, the number from baseline to the follow-up period declined from 22 to 10 procedures in District 13. The portion of C-sections performed that were not indicated medically at baseline was 43.1% and at follow-up the rate decreased to 17.5%. This change observed from baseline to follow-up represents a -59.4% change in the portion of C-sections that were not justified medically in District 13. See Table 3.13.

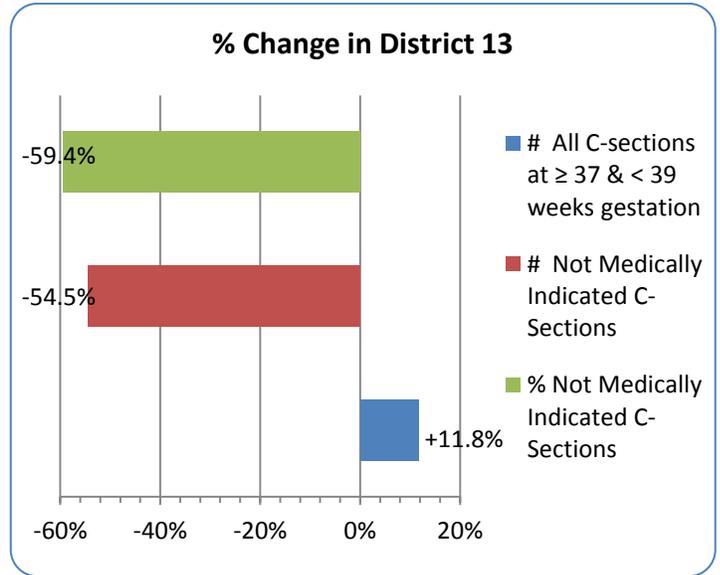
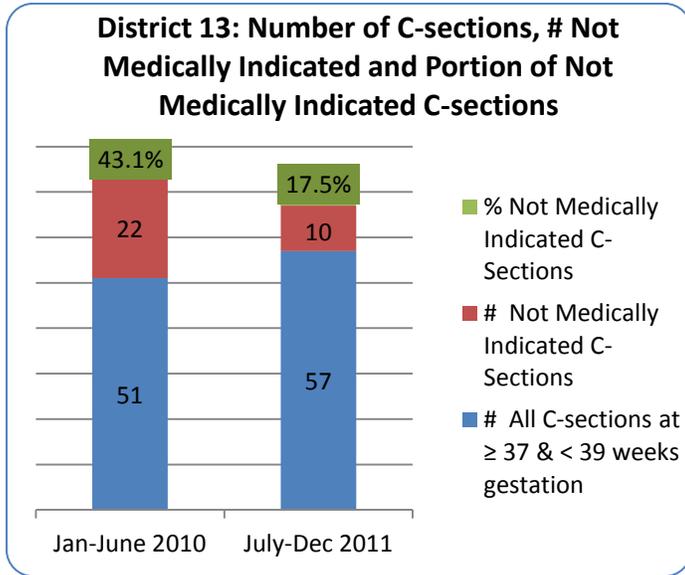


Table 3.13. Number of all C-sections performed between 37 and 39 weeks, Number and portion of C-sections NOT medically indicated in District 13.

C-sections Not Medically Justified	Jan-June 2010	July-Dec 2011	% Change
# All C-sections ≥37 & <39 weeks gestation	51	57	+11.8%
# Not Medically Indicated C-sections	22	10	-54.5%
% Not Medically Indicated C-sections	43.1%	17.5%	-59.4%

4.13. Average Portion of C-sections Not Medically Indicated per Participating Provider Decreased in District 13.

In District 13 the number of providers performing C-sections between 37 and 39 weeks decreased from the baseline period to the follow-up period from 19 to 16. The average per provider C-section portion for unjustified procedures declined from 37.5% in 2010 to 12.1% in 2011. This represents a -67.7% change in the portion of C-sections not medically indicated. This average per provider reduction was statistically significant at the .05 level according to the t-test analysis. See Table 4.13.

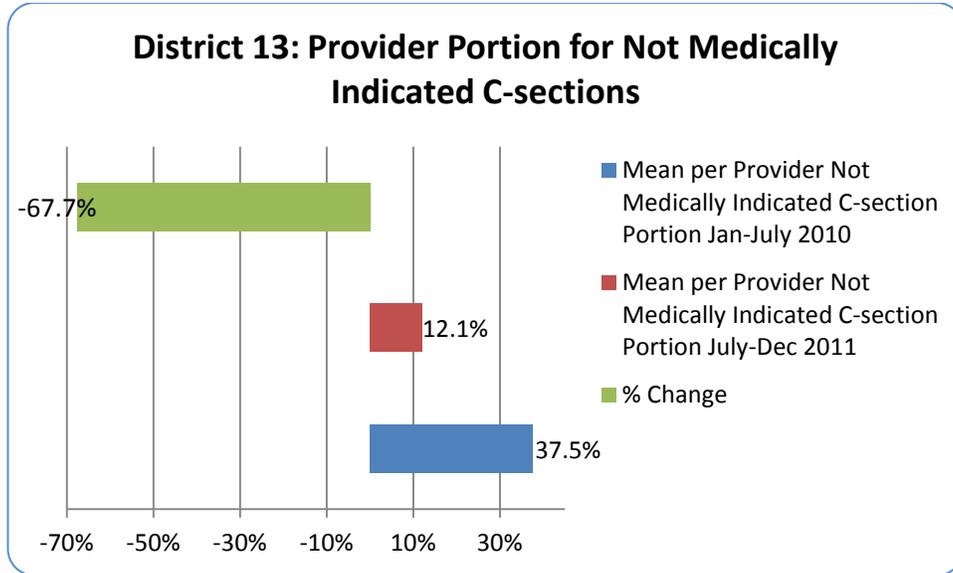


Table 4.13. Number of Providers Performing C-sections between 37 and 39 weeks Gestation and the Average Portion per Provider that Were Not Medically Indicated

Number of Providers Performing C-sections		% Change
# Providers Jan-June 2010	19	-15.8%
# Providers July-Dec 2011	16	
Average Portion per Provider		
Mean (±Std. Dev.) per Provider Not Medically Indicated C-section Portion Jan-July 2010	37.5% (±41.0)	-67.7%
Mean (±Std. Dev.) per Provider Not Medically Indicated C-section Portion July-Dec 2011	12.1%** (±15.8)	

**p < .05 t-test

5.13. *Providers Who Had Higher Than the Median Rate Of C-sections In The Initial Period Were More Likely to Reduce Their C-section Rates, Compared To Providers With Relatively Low Rates Initially, For District 13. See Table 5.13.*

In District 13 all providers who performed C-sections and had a procedure rate below or equal to the statewide median of 7.3% increased their rates during the follow-up period in 2011. A majority (62.5%) of providers that initially had C-section rates above the statewide median lowered their rates in 2011; however the remaining providers (37.5%) further increased their rates in the follow-up year. See Table 5.13.

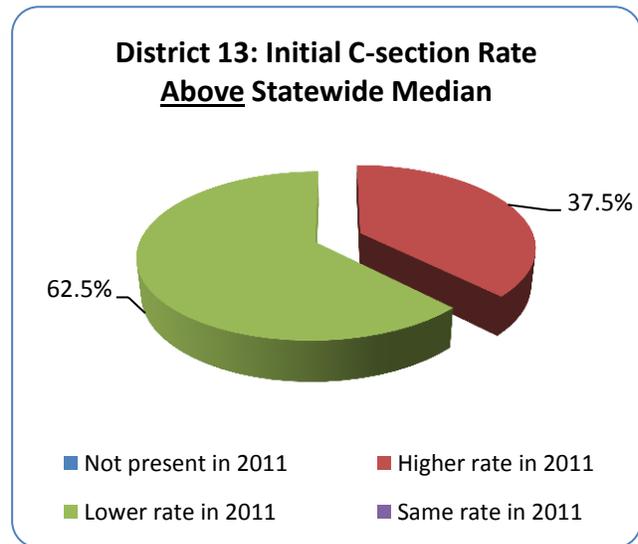
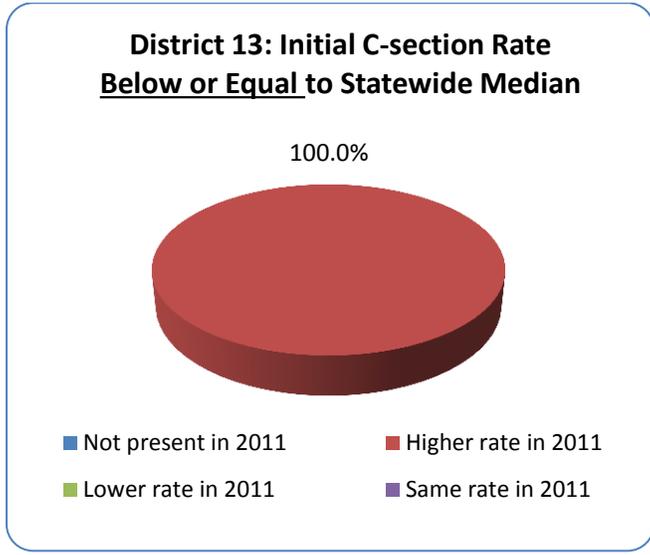


Table 5.13.

Provider C-section Rate Change from Jan-June 2010 to July-Dec 2011 In Relation to the Median (excludes providers only present in 2011)		
Statewide Median Rate=7.3%	Initial C-section rate below or equal to statewide Median	Initial C-section rate above statewide Median
# of providers	5	16
Not present in 2011	0.0%	0.0%
Higher rate in 2011	100.0%	37.5%
Lower rate in 2011	0.0%	62.5%
Same rate in 2011	0.0%	0.0%

6.13. Providers Who Had Higher Than the Median Portion of Not Medically Indicated C-sections In The Initial Period Were More Likely To Decrease Their Portions For Non-Medically Indicated Procedures, Compared with Providers Who initially Had Lower Median-based Portions In District 13.

In District 13, a majority (62.5%) of providers who performed C-sections that were not justified medically and had an initial procedure portion below or equal to the statewide median of 13.3% were more likely to maintain their baseline portion. Twenty-five percent increased the portion of C-sections that were not medically indicated whereas a small group (12.5%) reduced their portion in the follow-up period. Most of the providers that initially had unjustified C-section portions above the statewide median showed reductions in 2011. See Table 6.13.

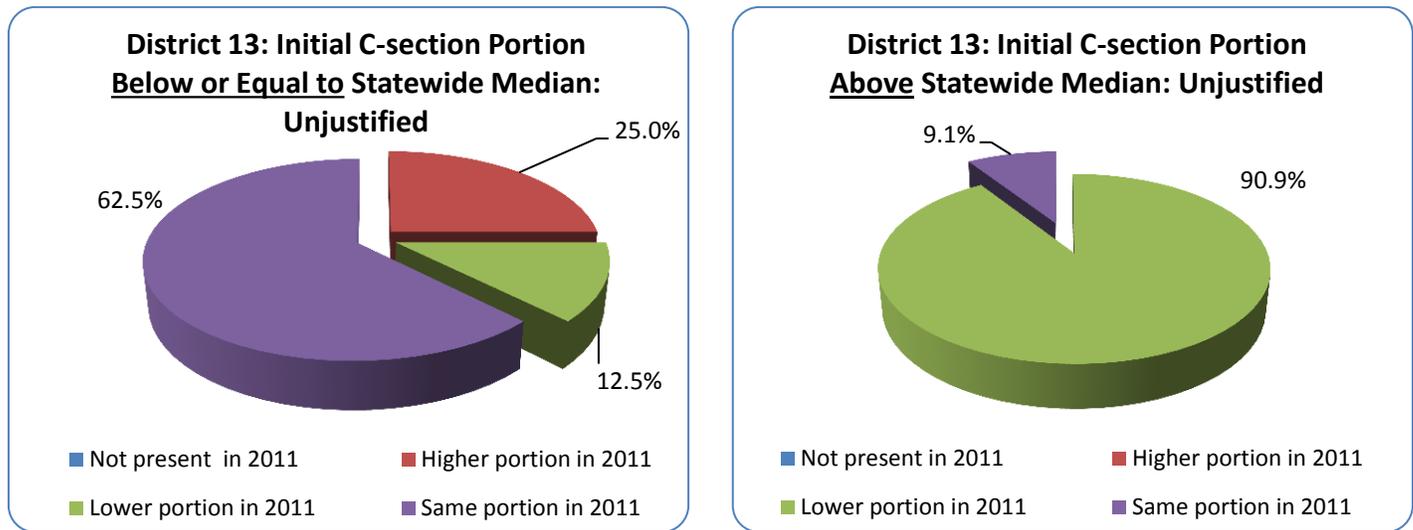


Table 6.13. Provider Portions for C-sections Not Medically Indicated according to the statewide Median (excludes providers only present in 2011)

Provider Not Medically Indicated C-section Portion Change from Jan-June 2010 to July-Dec 2011 (excludes providers only present in 2011)		
Median portion=13.3%	Initial not medically indicated C-section portion <u>below or equal</u> to statewide Median	Initial not medically indicated C-section portion <u>above</u> statewide Median
# of providers	8	11
Not present in 2011	0.0%	0.0%
Higher portion in 2011	25.0%	0.0%
Lower portion in 2011	12.5%	90.9%
Same portion in 2011	62.5%	9.1%

Findings for District 13

Although there was an increase in the portion of deliveries with C-sections at 37-39 weeks between the baseline and follow-up periods in District 13, the average C-section rate per provider declined. The overall portion of C-sections which were not medically justified, which was quite high at 43% in the baseline period, declined dramatically, as did the average portion of not medically justified C-sections per provider. Nearly all of the providers who had high portions of not medically justified C-sections at baseline had portions that declined in the follow-up period, and none stopped providing services in the follow-up period.

District 14

Section 1.14. Total C-section Rates by District

In District 14, Medicaid providers performed 1,815 deliveries from January to June 2010 and 1,917 deliveries from July to December 2011. This increase in District 14 represents a 5.6% change in the total number of deliveries. Among all deliveries, there were 154 C-sections performed between 37 and 39 weeks gestation in the baseline period and 132 during follow-up. Once the program was implemented in the District in 2011 there was a reduction in the rate of C-sections compared with the baseline rate in 2010, 8.5% and 6.9%, respectively, for an -18.8% change. See Table 1.14.

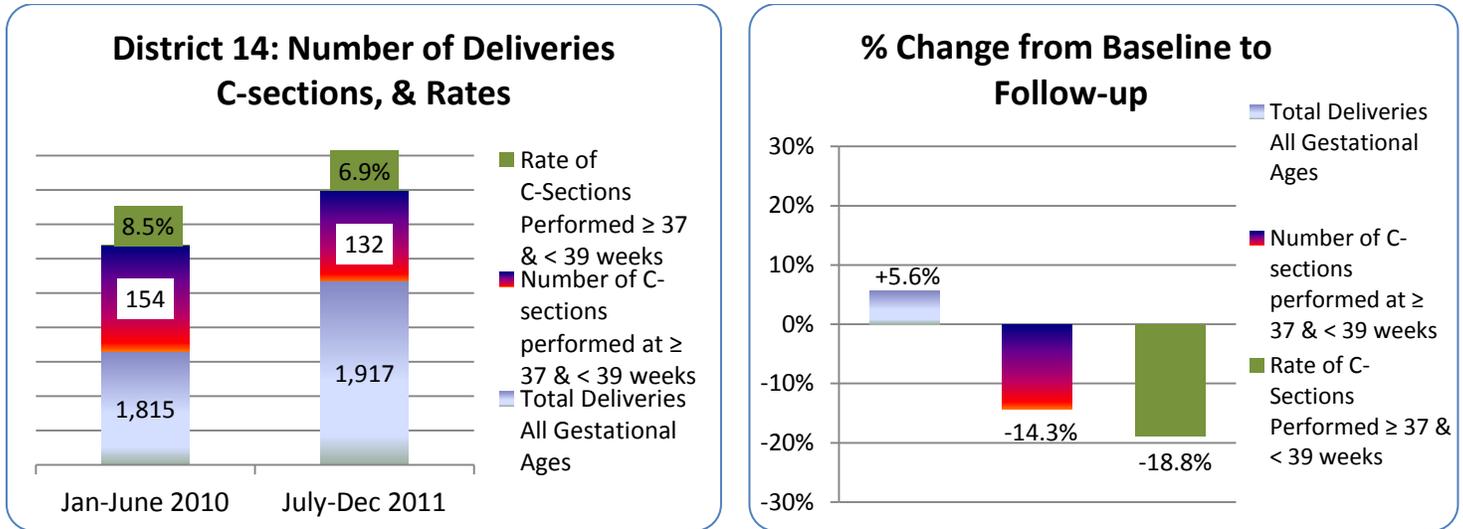


Table 1.14. Overall Deliveries, Total C-sections and Rates for District 14

District 14	Jan-June 2010	July-Dec 2011	% Change
Total Deliveries	1,815	1,917	+5.6%
C-sections	154	132	-14.3%
C-section Rate	8.5%	6.9%	-18.8%

2.14. Average C-section Rates for Participating Providers Decreased in District 14.

In District 14 the number of providers with deliveries from the baseline to the follow-up period decreased by only one provider from 30 to 29. Among the Medicaid maternity providers in the baseline period there was a 12.4% (Std. Dev. ± 10.5) C-section rate and at follow-up the rate per provider decreased to 9.1% (Std. Dev. ± 8.2). This represents a -26.6% change in the C-section rate per provider from baseline to follow-up. See Table 2.14.

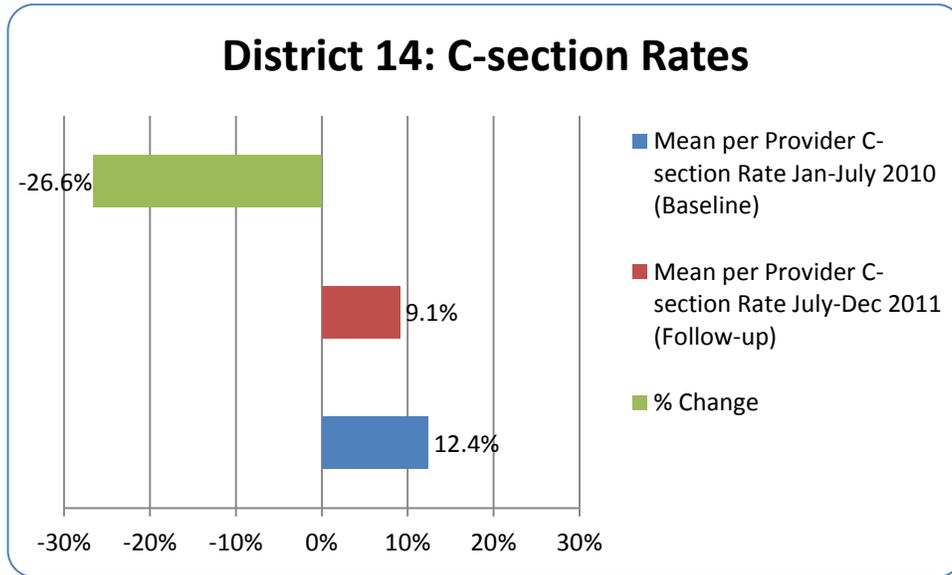


Table 2.14. Provider C-section Rates for District 14

District 14: Number of Providers with Deliveries	Number & Rate	% Change
# Providers Jan-June 2010 (Baseline)	30	-3.3%
# Providers July-Dec 2011 (Follow-up)	29	
Provider C-section Rates		
Mean (\pm Std. Dev.) per Provider C-section Rate Jan-July 2010 (Baseline)	12.4% (± 10.5)	-26.6%
Mean (\pm Std. Dev.) per Provider C-section Rate July-Dec 2011 (Follow-up)	9.1% (± 8.2)	

3.14. *The Portion of Non-Medically Indicated C-sections Decreased in the District 14.*

Among the C-sections performed that were not medically indicated between 37 and 39 weeks, the number from baseline to the follow-up period declined from 20 to 15 procedures in District 14. The portion of C-sections performed that were not indicated medically at baseline was 13.0% and at follow-up decreased to 11.4%. This reduction observed from baseline to follow-up represents a -12.3% change in the portion of C-sections that were not justified medically in District 14. See Table 3.14.

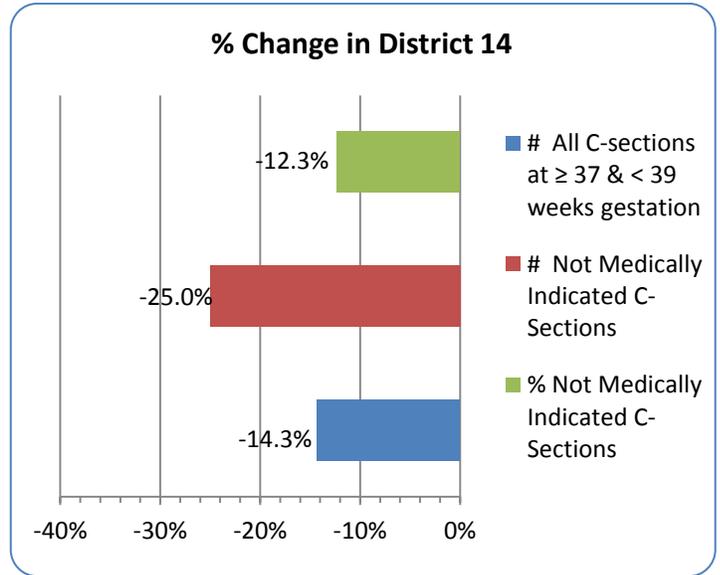
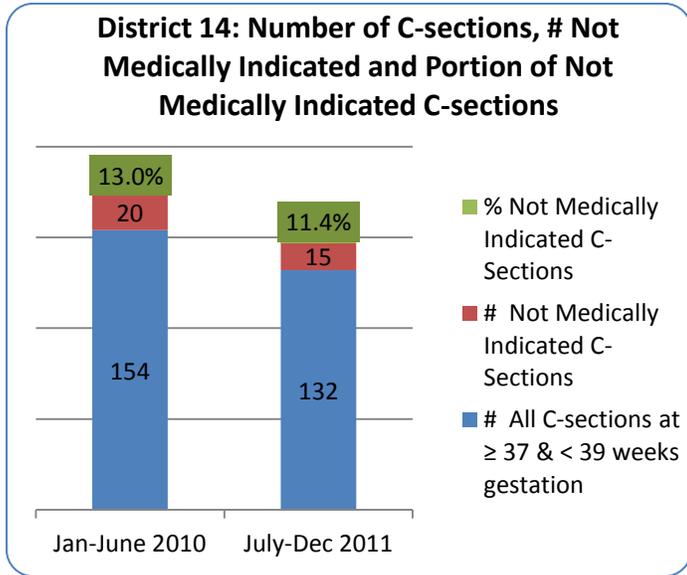


Table 3.14. Number of all C-sections performed between 37 and 39 weeks, Number and portion of C-sections NOT medically indicated in District 14.

C-sections Not Medically Justified	Jan-June 2010	July-Dec 2011	% Change
# All C-sections ≥37 & <39 weeks gestation	154	132	-14.3%
# Not Medically Indicated C-sections	20	15	-25.0%
% Not Medically Indicated C-sections	13.0%	11.4%	-12.3%

4.14. Average Portion of C-sections Not Medically Indicated per Participating Provider Decreased in District 14.

In District 14 the number of providers performing C-sections between 37 and 39 weeks decreased from the baseline period to the follow-up period from 29 to 27. The average per provider C-section portion for unjustified procedures was relatively unchanged from 11.6% at baseline to 11.7% at follow-up.

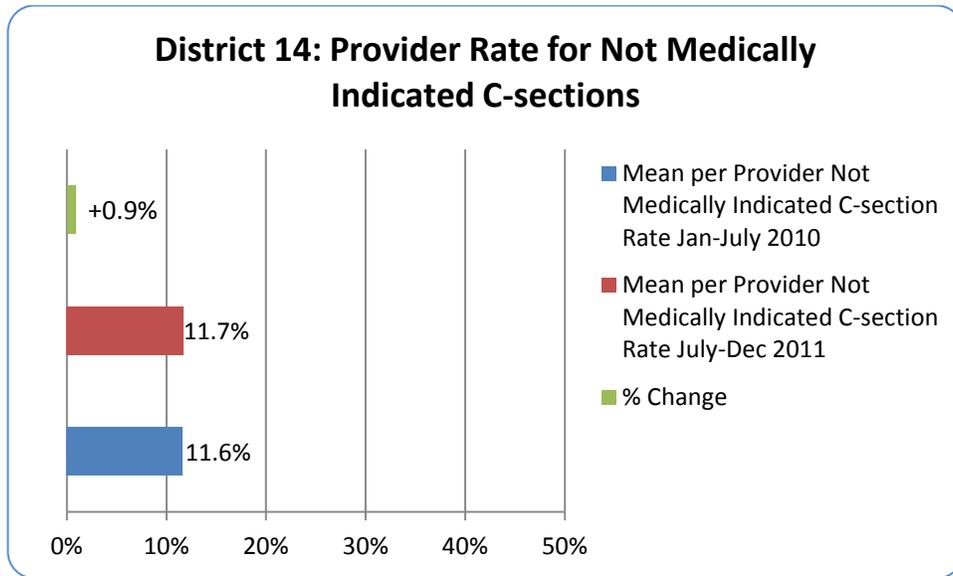


Table 4.14. Number of Providers Performing C-sections between 37 and 39 Weeks Gestation and Average Per Provider C-section Portion For Unjustified Procedures

Number of Providers		% Change
# Providers Jan-June 2010	29	-6.9%
# Providers July-Dec 2011	27	
Average Portion per Provider		
Mean (\pm Std. Dev.) per Provider Not Medically Indicated C-section Portion Jan-July 2010	11.6% (\pm 22.2)	+0.9%
Mean (\pm Std. Dev.) per Provider Not Medically Indicated C-section Portion July-Dec 2011	11.7% (\pm 16.9)	

5.14. Providers Who Had Higher Than the Median Rate Of C-sections In The Initial Period Were More Likely to Reduce Their C-section Rates, Compared To Providers With Relatively Low Rates Initially, For District 14. See Table 5.14.

In District 14 providers who performed C-sections and had a procedure rate below or equal to the statewide median of 7.3% had either higher rates (50.0%) or lower rates (50.0%) during the follow-up period in 2011. Most (83.3%) providers that initially had C-section rates above the statewide median lowered their rates in 2011. See Table 5.14.

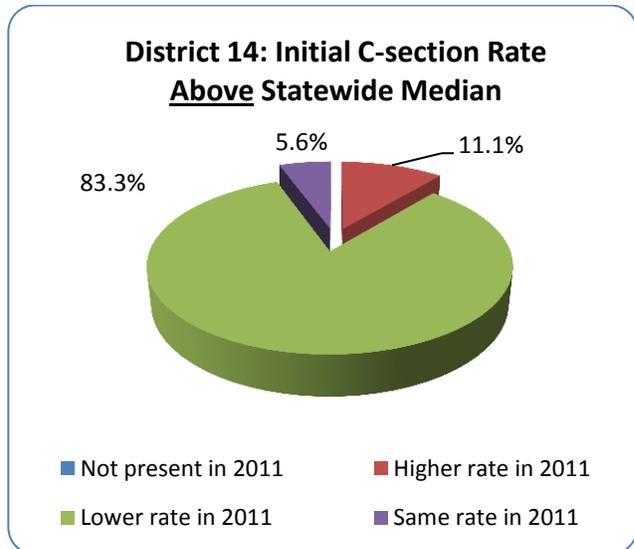
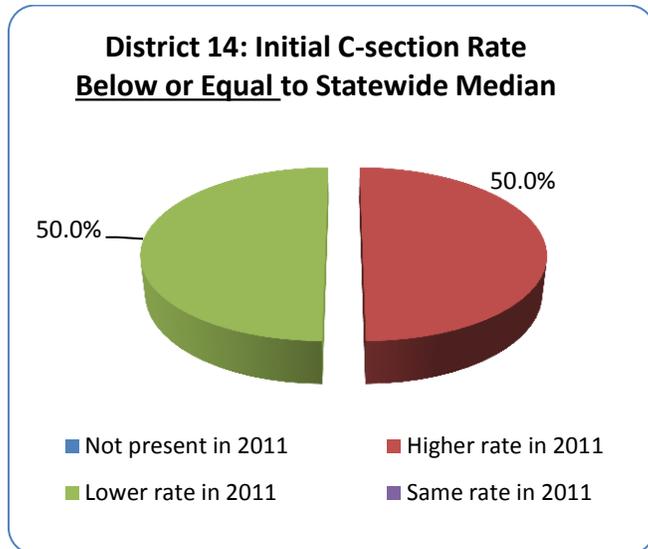


Table 5.14.

Provider C-section Rate Change from Jan-June 2010 to July-Dec 2011 (excludes providers only present in 2011) In Relation to the Median		
Statewide Median Rate=7.3%	Initial C-section rate <u>below or equal</u> to statewide Median	Initial C-section rate <u>above</u> statewide Median
# of providers	12	18
Not present in 2011	0.0%	0.0%
Higher rate in 2011	50.0%	11.1%
Lower rate in 2011	50.0%	83.3%
Same rate in 2011	0.0%	5.6%

6.14. Providers Who Had Higher Than the Median Portion Of Not Medically Indicated C-sections In The Initial Period Were More Likely To Decrease Their C-section Rates For Non-Medically Indicated Procedures, Compared with Providers Who initially Had Lower Median-based Portions In District 14.

In District 14, more than one-half of providers who performed C-sections that were not justified medically and had an initial procedure rate below or equal to the statewide median of 13.3% were more likely to maintain their baseline portion than lower (23.8%) or increase (23.8%) their rates in the follow-up period. Most (75.0%) of the providers that initially had unjustified C-section rates above the statewide median reduced their rates in 2011. See Table 6.14.

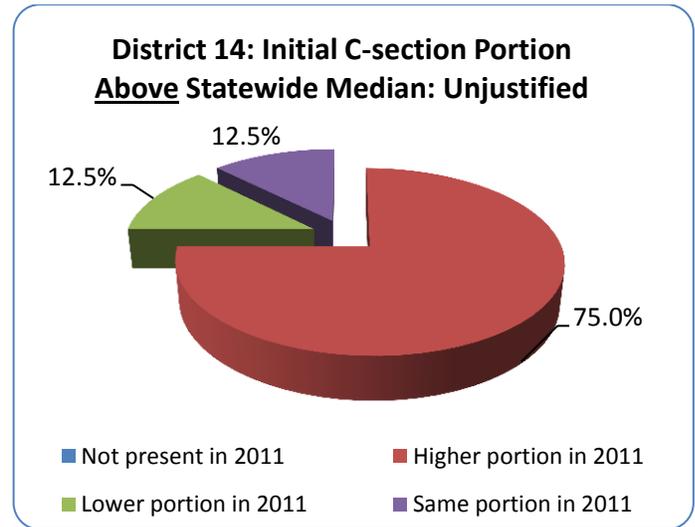
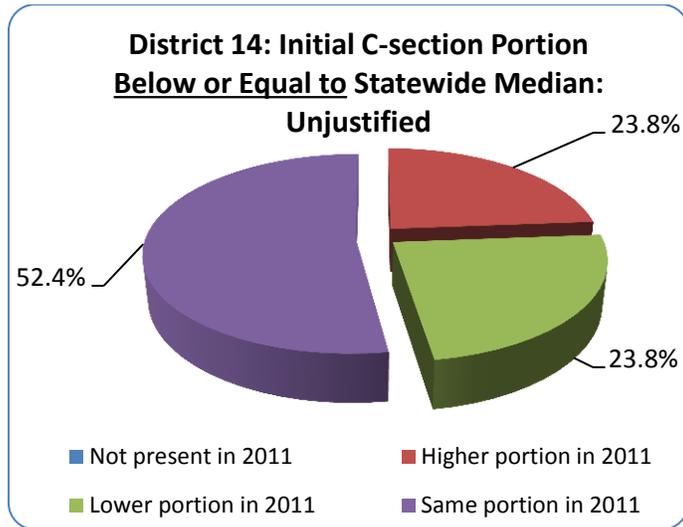


Table 6.14. Provider Portions for C-sections Not Medically Indicated according to the statewide Median (excludes providers only present in 2011)

Provider Not Medically Indicated C-section Portion Change from Jan-June 2010 to July-Dec 2011 (excludes providers only present in 2011)		
Median portion=13.3%	Initial not medically indicated C-section portion <u>below or equal</u> to statewide Median	Initial not medically indicated C-section portion <u>above</u> statewide Median
# of providers	21	8
Not present in 2011	0.0%	0.0%
Higher portion in 2011	23.8%	75.0%
Lower portion in 2011	23.8%	12.5%
Same portion in 2011	52.4%	12.5%

Findings for District 14

In District 14 there was an overall decline and an average per provider decline in C-section rates at 37-39 weeks between the baseline and the follow-up period. However the portion of C-sections that were not medically justified, which was relatively low by comparison across the state, did not change dramatically between the two periods.

Overall District Summary

In Districts 2 and 5 Maternity providers significantly reduced their average C-section rates among all deliveries. Districts 3, 9, 10, 11, 12 and 13 significantly reduced the average portion of C-sections that were not medically indicated between 37 and 39 weeks gestation following intervention efforts in the districts.

Summary of Findings by Programs Covering Multiple Districts – *Pertinent Intervention Notes in Italics*

Districts 1 & 2: HealthGroup of Alabama – Best Start Program

Barriers Identified by Directors: *Closing of Russellville Hospital's Labor and Delivery unit, Florence OBGYN closed, several Health Care Delivery Professionals relocated given these changes in District 1 included the provider with the highest occurrence of unjustified C-sections between 37 and 39 weeks. In District 2, the Care Coordinators in Madison County were reluctant to use the March of Dimes Late Preterm Delivery Card because it was considered to be controversial. One of the group practices in Madison County did not approve of the card's use and asked for it to be removed from all childbirth education materials; this made the Care Coordinators in Madison County feel uncomfortable using it with Best Start recipients. And in District 2, there was a trend for delivery at 38.6 weeks gestation with a notation in the History and Physical that said "Term Intrauterine Pregnancy admitted for Repeat Cesarean Delivery." Of the 15 unjustified deliveries with Decatur OBGYN, 5 were done at 38.6 weeks gestation and they were all scheduled, elective repeat cesarean sections.*

District	1	2
Total Deliveries Jan-June 2010	630	1,683
# C-sections	86	204
C-section Rate	13.6%	12.1%
Total Deliveries July-Dec 2011	637	1,904
# C-sections	67	209
C-section Rate	10.5%	11.0%
% change in rate	-22.8%	-9.1%

District	1	2
# providers before	15	51
# providers after	16	55
Mean (±Std. Dev.) of provider C-section Rate Jan-July 2010	16.5% (±24.3)	11.4% (±9.6)
Mean (±Std. Dev.) of provider C-section Rate July-Dec 2011	6.0% (±6.4)	8.4% (±7.7)*
% change in provider rate	-63.6%	-26.3%

*p < 0.10

District	1	2
Jan-June 2010		
Total C-sections Jan-June 2010	86	204
# Not Medically Indicated C-sections	24	76
% Not Medically Indicated C-sections	27.9%	37.2%
July-Dec 2011		
Total C-sections July-Dec 2011	67	209
# Not Medically Indicated C-sections	19	75
% Not Medically Indicated C-sections	28.3%	35.9%
% Change in Not Medically Indicated C-section portion	+1.4%	-3.5%

Table 4. Not Medically Indicated C-section Rates		
District	1	2
# providers before	12	39
# providers after	9	39
Mean (\pm Std. Dev.) of provider Not Medically Indicated C-section Portion Jan-July 2010	25.1% (\pm 29.3)	33.9% (\pm 30.4)
Mean (\pm Std. Dev.) of provider Not Medically Indicated C-section Portion July-Dec 2011	14.8% (\pm 19.0)	30.3% (\pm 20.8)
% Change in Not Medically Indicated C-section rate per provider	-41.0%	-10.6%

Districts 4, 7 & 9: Greater Alabama Health Network – First Steps Program

In District 4 delivering hospitals now require a medically necessary diagnosis to schedule C-sections between 37 and 39 weeks and are monitoring elective deliveries. Intervention strategies included face-to-face meetings with Care Coordinators and Maternity providers and patients.

District	4	7	9
Total Deliveries Jan-June 2010	765	110	323
# C-sections	36	9	12
C-section Rate	4.7%	8.1%	3.7%
Total Deliveries July-Dec 2011	845	130	352
# C-sections	20	6	12
C-section Rate	2.4%	4.6%	3.4%
% change in rate	-48.9%	-43.2%	-8.1%

District	4	7	9
# providers before	27	23	10
# providers after	27	26	14
Mean (±Std. Dev.) of provider C-section Rate Jan-July 2010	3.5% (±5.0)	7.3% (±15.4)	3.3% (±6.2%)
Mean (±Std. Dev.) of provider C-section Rate July-Dec 2011	3.7% (±9.6)	4.2% (±8.1)	1.9% (±3.6%)
% change in provider rate	+5.7%	-42.5%	-42.4%

District	4	7	9
Jan-June 2010			
Total C-sections Jan-June 2010	36	9	12
# Not Medically Indicated C-sections	13	2	12
% Not Medically Indicated C-sections	36.1%	22.2%	100.0%
July-Dec 2011			
Total C-sections July-Dec 2011	20	6	12
# Not Medically Indicated C-sections	7	2	3
% Not Medically Indicated C-sections	35.0%	33.3%	25.0%
% Change in Not Medically Indicated C-section portion	-3.0%	+50.0%	-75.0%

District	4	7	9
# providers before	15	6	4
# providers after	13	6	5
Mean (±Std. Dev.) of provider Not Medically Indicated C-section Portion Jan-July 2010	38.3% (±45.6)	33.3% (±51.6)	100.0%
Mean (±Std. Dev.) of provider Not Medically Indicated C-section Portion July-Dec 2011	44.9% (±16.0)	33.3% (±51.6)	33.3%** (±47.1)
% Change in Not Medically Indicated C-section Portion per Provider	+17.2%	0.0%	-66.7%

*p < 0.10 **p < 0.05 ***p < 0.01 ****p < 0.001

Districts 6, 10 & 12: Gift of Life Foundation

Each DHCP practice in all three districts received a visit by Gift of Life QA staff to discuss the PIP and answer questions. An article in the Spring-Summer 2011 issue of the Gift of Life newsletter featured an overview of the 2011 Quality Assurance Performance Improvement Project. The Gift of Life newsletter is distributed to over 220 people semi-annually. **Barriers Identified by Directors:** A small number of physicians in rural areas with solo practices were resistant to adopt the study findings. Other physicians stated they were not going to change their C-section practice to comply with the PIP information. A few hospitals were apathetic about implementing internal tracking or oversight of the PIP measures and components. There continues to be inadequate documentation by physicians of gestational age upon admission and on operative report as well as incomplete diagnosis/status (pre-eclampsia, active labor) on the hospital admission History & Physical form. District #6 has small delivery numbers. Three DHCPs that were in the District in 2010 have left and 5 new DHCPs have replaced them.

District	6	10	12
Total Deliveries Jan-June 2010	648	1,719	1,177
# C-sections	83	139	168
C-section Rate	12.8%	8.1%	14.3%
Total Deliveries July-Dec 2011	592	1,603	1,001
# C-sections	104	173	123
C-section Rate	17.6%	10.8%	12.3%
% change in rate	+37.5%	+33.3%	-14.0%

District	6	10	12
# providers before	10	35	25
# providers after	11	36	20
Mean (±Std. Dev.) of provider C-section Rate Jan-July 2010	8.1% (±9.9)	8.8% (±6.8)	15.9% (±8.4)
Mean (±Std. Dev.) of provider C-section Rate July-Dec 2011	19.9% (±16.7)	10.1% (±7.0)	11.8% (±9.1)
% change in provider rate	+145.7%	+14.8%	-25.8%

District	6	10	12
Jan-June 2010			
Total C-sections Jan-June 2010	83	139	168
# Not Medically Indicated C-sections	12	26	33
% Not Medically Indicated C-sections	14.4%	18.7%	19.6%
July-Dec 2011			
Total C-sections July-Dec 2011	104	173	123
# Not Medically Indicated C-sections	15	8	7
% Not Medically Indicated C-sections	14.4%	4.6%	5.7%
% Change in Not Medically Indicated C-section Portion	0.0%	-75.4%	-70.9%

District	6	10	12
# providers before	6	32	26
# providers after	11	33	22
Mean (±Std. Dev.) of provider Not Medically Indicated C-section Portion Jan-July 2010	11.1% (±10.0)	16.8% (±25.0)	13.7% (±19.1)
Mean (±Std. Dev.) of provider Not Medically Indicated C-section Portion July-Dec 2011	15.8% (±33.1)	3.8%*** (±10.7)	5.6%* (±12.6)
% Change in Not Medically Indicated C-section Portion per provider	+42.3%	-77.4%	-59.1%

* p < 0.10 ** p < 0.05 *** p < 0.01 **** p < 0.001