Annual Report 2012

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Introduction and Scope of the Evaluation

This annual report on Missouri's program for heath care for uninsured children/Children's Health Insurance Program (CHIP) is being submitted to the General Assembly as required by Section 208.650 of the Revised Statutes of Missouri. The CHIP program operated as part of a Medicaid Section 1115 Healthcare Demonstration Waiver program (1115 Waiver) between September 1, 1998 and September 30, 2007. The 1115 Waiver originally expanded eligibility to uninsured children, adults leaving welfare for work, uninsured custodial parents, uninsured non-custodial parents and uninsured women losing their Medicaid eligibility 60 days after the birth of their child. [1] Effective September 2007, Missouri's CHIP program began operating as a combination Medicaid/CHIP program.

The Children's Health Insurance Program Reauthorization Act of 2009 (CHIPRA) reauthorized the Children's Health Insurance Program until FFY 2013. The Patient Protection and Affordable Care Act (PPACA), enacted in 2010, appropriated funding to CHIP through FY 2015 and provided for states a 23% point increase in the CHIP match rates, with a cap of 100%, for fiscal years 2016 through 2019. In addition, PPACA maintenance of effort requirements for the CHIP program requires states to maintain income eligibility thresholds and not impose any procedures, methodologies or other requirements that make it more difficult for people to apply or renew their CHIP eligibility.

Missouri provides presumptive eligibility for children in families with income of up to 150% of the federal poverty level (FPL) until an eligibility decision is made. The table below lists the income eligibility thresholds for CHIP.

Program Age Group	Lower Limit of Family Income (as a percentage of the FPL)	Upper Limit of Family Income (as a percentage of the FPL)
[2]CHIP 1: Children under age 1	185%	300%
[1]CHIP 1: Children ages 1 through 5	133%	151%
[2]CHIP 2: Children ages 1 through 5	151%	300%
[1]CHIP 1: Children ages 6 through 18	100%	151%
[2]CHIP 2: Children ages 6 through 18	151%	300%

[1] Medicaid Expansion Program
[2] Separate CHIP Program

[1] Service delivery to children began September 1, 1998. Service delivery for adults began February 1, 1999.

Beginning September 2005, co-pays were eliminated in lieu of graduated premiums for all families with incomes greater than 150% of FPL. Premiums are based on income and in FY 2012 ranged from $13 for a family size of 1 to $290 for a family size of 6 per month[2]. Premium rates are adjusted annually. In no case shall the family be charged more than 5% of the family's gross income. The premium invoicing system is designed to not invoice a monthly premium in excess of 5% of the family's gross annual income divided by twelve (12).

Missouri has a grace period for non-payment of premiums of 30 days, but for families with income over 225% FPL, there is a lock-out period of 6 months after disenrollment due to non-payment of premiums. For these families, repayment of outstanding premiums is also required.

The CHIP program has the following strategic goals:

- Reduce the number of children in Missouri without health insurance coverage;
- Increase access to health care;
- Increase the number of children in Missouri who have access to a regular source of healthcare coverage; and
- Improve the health of Missouri's medically uninsured children through the use of preventive care.

This report focuses on three questions which are outlined in the statute and are as follows:

Study Question 1: **Has CHIP improved the health of Missouri's children and families?**

What are the overall effects of the CHIP program? Specifically, what is:

- The number of children participating in each income category?
- The effect on the number of children covered by private insurers?
- The effect on medical facilities, particularly emergency rooms?
- The overall effect on the health care of Missouri residents?
- The overall cost to the state of Missouri?
- The methodology used to determine availability for the purpose of enrollment, as established by rule?

Study Question 2: What is the impact of CHIP on providing a comprehensive array of community-based wrap-around services for seriously emotionally disturbed children and children affected by substance abuse?

Study Question 3: What is the effect of CHIP on the number of children covered by private insurers? Did the expansion of health care coverage to children whose gross family income is above 185% of the federal poverty level (FPL) have any negative effect on these numbers?

Terminology

Throughout this report, we use the following terminology:

- MO HealthNet or Medicaid refers to the Title XIX state plan Medicaid population.
- CHIP refers to the targeted low-income expansion program for children.

[2] http://www.dss.mo.gov/fsd//iman/fhc/0900-000-00-appendix_e.pdf

Data Sources and Approach

This report relied on the use of previously aggregated, readily available data from the state of Missouri and obtained from other sources. Major data sources used in previous years' report are also used this year in order to facilitate the comparison of longitudinal data across the reports. Major data sources are as follows:

- Health Status Indicator Rates – Department of Health and Senior Services (DHSS), Community Health Information Management and Epidemiology (CHIME), Calendar Year 2010;
- Monthly Management Report – Department of Social Services (DSS), Fiscal Year 2012;
- Multiple Data Requests – MO HealthNet Division (MHD), DSS and Department of Mental Health (DMH); and,
- U.S. Census Data, 1999-2010.

In addition to the aforementioned data sources journal articles and health publications produced by the federal government and national health policy researchers were utilized and are credited in the footnotes.

In compiling this report the most recent data available was used for each study question, including claims data from calendar year 2011 and eligibility data from State fiscal year 2012.

Has CHIP improved the health of Missouri's children and families?

1. What is the number of children participating in the program in each income category?[3]

For the most recent twelve-month period, July 2011 through June 2012, CHIP program enrollment ranged from under 71,000 to more than 74,000 participants (See table below):

CHIP Participants by Premium and Non-Premium Categories

Month	Year	Up to 150% FPL (Non-Premium)	151% to 300% FPL (Premium)	Total
July	2011	46,127	24,824	70,951
August	2011	46,309	25,294	71,603
September	2011	46,629	25,704	72,333
October	2011	46,932	26,090	73,022
November	2011	47,090	26,445	73,535
December	2011	46,985	26,778	73,763
January	2012	46,772	26,774	73,546
February	2012	46,898	27,080	73,978
March	2012	47,129	27,341	74,470
April	2012	45,002	25,628	70,630
May	2012	45,417	25,444	70,861
June	2012	45,558	25,270	70,828

Source: Department of Social Services, Monthly Management Reports
(Numbers are counts of unique enrollees at the beginning of the month)

2. What is the effect of the CHIP program on the number of children covered by private insurers?[4]

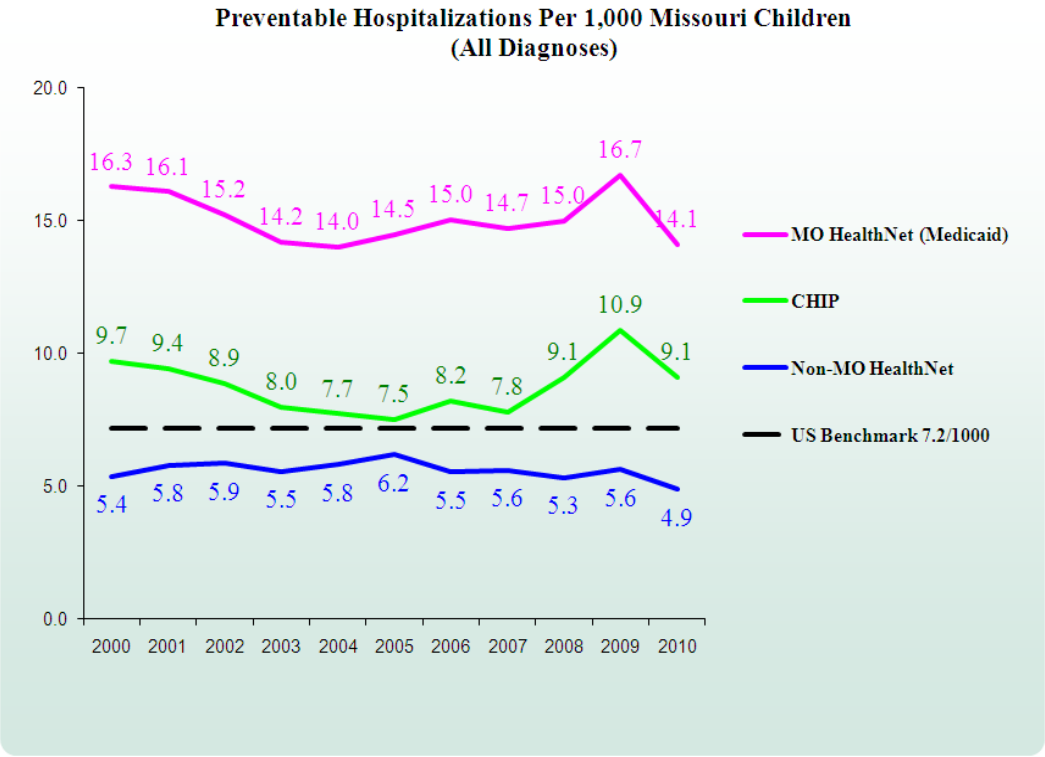
In Missouri in the last 5 years, it appears that the rate of Employer Sponsored Insurance (ESI) and private insurance has remained basically stable. Missouri continues to be ahead of the national trends, which show increases in the uninsured population, and decreases in the percentage of children participating in ESI and private insurance. Previous year's reports have also concluded that to the extent that any crowd-out is occurring, it is at the lower income level of Medicaid, not in the CHIP program, and that children receiving coverage through CHIP would likely be uninsured without it. This question is explored in greater detail in study question 4 later in this report.

[3] For this question, enrollment data from State fiscal year 2012 was used.
[4] For this question, U.S. Census data from 1999-2010 was used.

3. What is the effect of the CHIP program on medical facilities, particularly emergency rooms?[5]

Preventable Hospitalizations

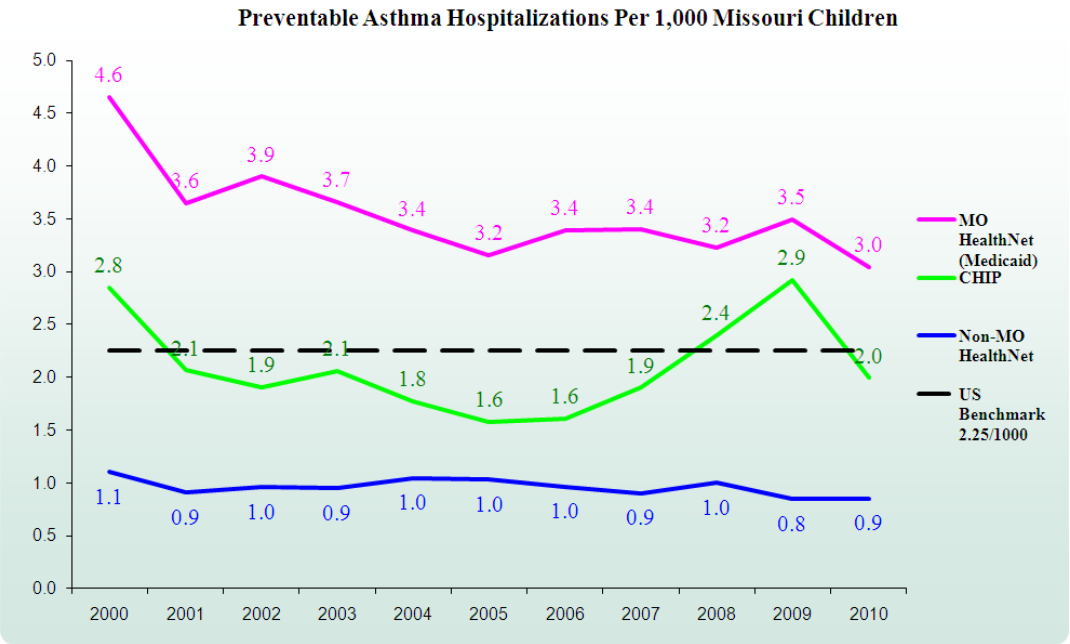
- From 2000 to 2010, preventable hospitalizations for the CHIP population decreased by more than 6%. During this time, preventable hospitalizations for the MO HealthNet (Medicaid children) population decreased by over 13% while the preventable hospitalizations for the non-MO HealthNet group decreased by over 9%.
- In 2010, the CHIP group rate of 9.1 preventable hospitalizations per 1,000 children was 26.4% higher than the national benchmark of 7.2 per 1,000.



[5] For this question, hospital data from calendar year 2010 was used.

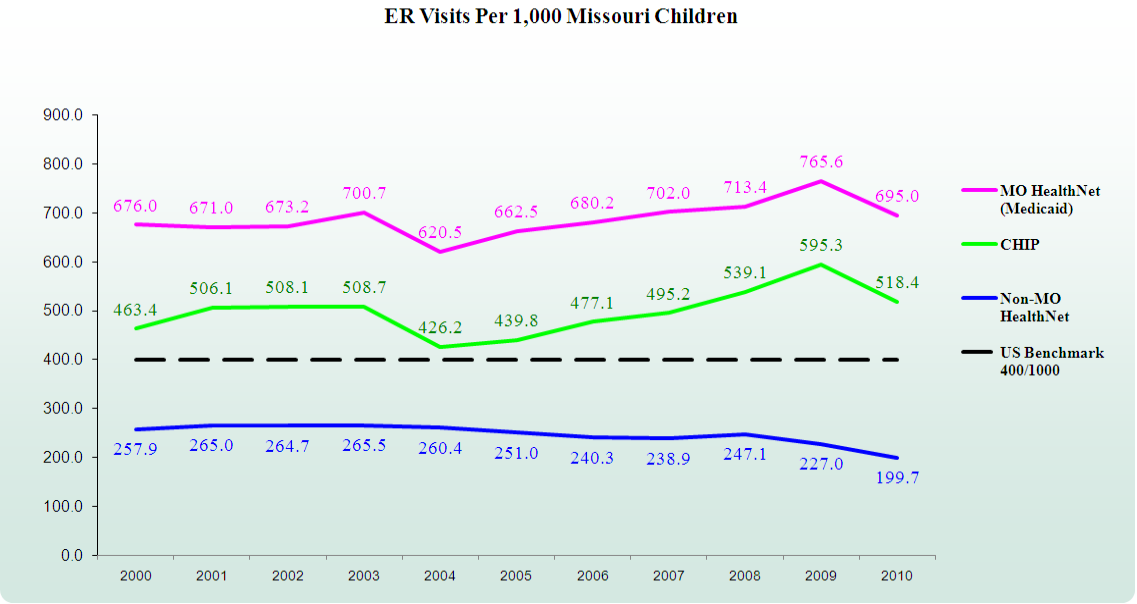
Preventable Asthma Hospitalizations

- From 2000 to 2010, preventable hospitalizations due to asthma for the CHIP population decreased by almost 30%. During this time, preventable hospitalizations due to asthma for the MO HealthNet (Medicaid children) population decreased by over 34% while the preventable hospitalizations for the non-MO HealthNet group decreased by more than 18%.
- In 2010, the CHIP group rate of 2.0 per 1,000 was 11% lower than the national benchmark of 2.25 per 1,000 children.



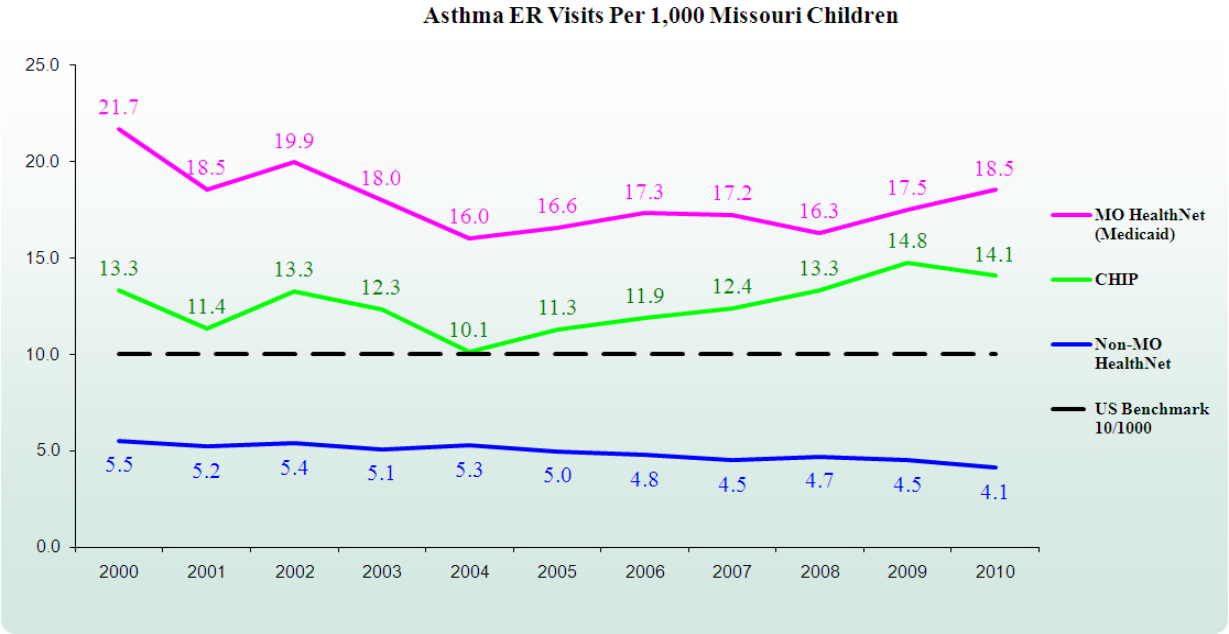
Emergency Room (ER) Visits

- From 2000 to 2010, ER visits for the CHIP population increased by 11.9%. During this time, ER visits for the MO HealthNet (Medicaid) population increased by 2.8% while the ER visits for the non-MO HealthNet group decreased by 22.6%.
- In 2010, the CHIP group rate of 518.4 ER visits per 1,000 children was 29.6% higher than the national benchmark of 400 per 1,000 children.



Asthma ER Visits

- From 2000 to 2010, ER visits due to asthma for the CHIP population increased by 6.0%. During this time, ER visits due to asthma for the MO HealthNet (Medicaid) population decreased by over 14% while the ER visits for the non-MO HealthNet group decreased by over 25%.
- In 2010, the CHIP group rate of 14.1 was 41% higher than the national benchmark of 10 per 1,000 children.



The data shows a decrease in all four indicators for the CHIP population when comparing 2010 to 2009. This is encouraging, because it shows a halt in the multi-year increases that had been seen through 2009. A change in policy that may have influenced this positive effect is the new requirement that effective October 1, 2009 the managed care organizations (MCOs) were required to obtain health plan accreditation, at a level of "accredited" or better, for the MO HealthNet product from the National Committee for Quality Assurance (NCQA) by October 1, 2011. Five of the six Managed Care health plans achieved a level of "commendable" and one health plan achieved a level of "accredited". The accreditation requirements incentivize improvements in various health outcomes through Healthcare Effectiveness Data and Information Set (HEDIS) measures, which include various asthma treatment and prevention process measures – the improvement of which would be expected to correspond to improvements in the indicators charted in this report. While causality cannot be proved, it seems likely that this incentive – and the success of the health plans in achieving high levels of NCQA accreditation – are linked to the improvements in the indicators in this report.

A summary of the indicators from 2000-2010 is presented in the following table. Detailed data broken down by region and by year is included as Appendix I.

Summary of 2010 Indicators for Missouri Children under 19 per 1,000 children

	CHIP	MO HealthNet (Medicaid)	Non-MO HealthNet (non-Medicaid)	National Benchmark
Preventable Hospitalizations	9.1	14.1	4.9	7.2
Preventable Asthma Hospitalizations	2.0	3.0	0.9	2.25
ER Visits	518.4	695.0	199.7	400.0
ER Asthma Visits	14.1	18.5	4.1	10.0

Data Sources: Department of Health and Senior Services; Benchmark: Kozak, Hall and Owings (preventable hospitalizations); Healthy People 2000 (preventable asthma hospitalizations); CDC's Health, United States, 2005 (ER visits); CDC, NCHS Health E-Stats (ER Asthma Visits)

4. What is the overall effect of the CHIP program on the health care of Missouri residents?

Studies analyzing the impact of health care coverage on children's lives show a positive impact on children when compared to uninsured children. An issue brief prepared by the Mathematic Policy Research, inc. in 2010 gives these examples:[6]

- Uninsured young children have lower immunization rates than insured children.
- Uninsured children are 70 percent less likely than insured children to receive medical care for common childhood conditions, such as sore throat, or for emergencies, such as a ruptured appendix.
- When hospitalized, uninsured children are at greater risk of dying than children with insurance.
- Parents of uninsured children are more likely to report unmet need for mental health services for their children.
- Uninsured children are also less likely to receive treatment for chronic conditions such as diabetes and asthma.
- Uninsured children have less access to a usual source of care, community-based services, and services to make transitions to adulthood.

The Baker Institute of Policy Report, published in June 2009, looked at the available research on the economic and health impacts of uninsured children in the United States. Their review of the research literature concluded that "immediate improvements in the health of children, as well as long-term returns of greater health and productivity in adulthood" would result from providing health care coverage to all children in the United States.[7]

In a more recent study published in 2010, researchers at Johns Hopkins Children's Center analyzed data from more than 23 million children's hospitalizations from 1988 to 2005 across 37 states. This study found that uninsured children are 60 percent more likely to die when hospitalized for all causes as compared with insured children (including Medicaid/CHIP and private insurance). The authors found that when you compare death rates by underlying disease, uninsured children have an increased rate of death independent of their medical condition, which increases their risk of dying by 60 percent as compared to those insured. The researchers concluded that at least 1,000 hospitalized children die each year due to being uninsured.

Another study published in 2005 looked specifically at the impact of Colorado's State Children's Health Insurance Program on health outcomes in children. Newly enrolled families in the state's CHIP program were interviewed within two months of their enrollment and then one year later. Families reported a significant increase in access to all types of health care, a perceived decrease in unmet health needs and no increased usage of emergency department services or hospitalizations.[8]

In 2009, 8.9% of Missouri's children were uninsured, which was tied for the 29th lowest rate in the country. Without the CHIP program, approximately 70,000 currently enrolled children would most likely be uninsured, raising the state's percentage of uninsured children to 14% and lowering the state's rank to 45th in the nation in uninsured rate, according to U.S. Census Data for calendar year 2010.

[6] Mathematica Policy Research, Inc: How Does Insurance coverage improve Health Outcomes?, Bernsein, Chollet and Peterson, April 2010.
[7] Baker Institute Policy Report: The Economic Impact of Uninsured Children on America, June 2009
[8] Pediatrics. 2005; 115(20: 364-71. Kempe A, Beaty BL, et al, Department of Pediatrics, University of Colorado Health Sciences Center

5. What is the overall cost of the CHIP program to Missouri?[9]

The CHIP program is funded with state (general revenue), federal, and other agency dollars[10]. In FY 2012, the federal share of the CHIP program expenditures was 74.42%. [11] Actual expenditures for FY 2012 are provided below.

CHIP Expenditures	
	FY 2012 Actual
State	$27,758,255
Federal	$129,168,619
Other	$16,054,804
Total	$172,981,678

6. What is the methodology used to determine availability for the purpose of enrollment?

13 CSR 70-4.080, State Children's Health Insurance Program, is the rule that establishes the methodology to determine availability for enrollment.

Eligibility provisions for families with gross income of more than 150% of FPL:

- Children must not have health insurance for the six months prior to the application.
- If health insurance was dropped within the six months prior to application, prospective participants must wait six months after coverage was dropped to be eligible. The waiting period does not apply to children who lose coverage due to an involuntary loss of employment by their parents, a new position for a parent with a new employer that does not offer coverage, expiration of COBRA coverage, or lapses of coverage due to lifetime maximums or pre-existing conditions.
    - Any child identified as having special health care needs, defined as a condition which left untreated would result in the death or serious physical injury of a child, that does not have access to affordable employer-subsidized health care insurance will be exempt from the requirement to be without health care coverage for six months in order to be eligible for services, and the 30-day waiting period as long as the child meets all other qualifications for eligibility. Special healthcare needs are established based on a written statement from the child's treating physician.
- Parents/guardians of uninsured children must certify the child does not have access to affordable health care insurance.

In addition to these provisions, the following rules apply to premium payments:

- Children in families with gross incomes of more than 150% but less than 225% of FPL are eligible for coverage once a premium has been received. Eligibility for the program may begin at the beginning of the month; however, coverage cannot begin until the premium has been received.
- Children in families with gross incomes of more than 225% and up to 300% of FPL are eligible 30 calendar days after the receipt of the application or when the premium is received, whichever is later. The thirty (30) day waiting period is waived for a child with special health needs, but the premium must still be received.

[9] For this question, financial data from fiscal year 2012 was used.
[10] Other sources of funding include the Federal Reimbursement Allowance Fund, Health Initiative Fund, Pharmacy Rebates Fund, Premium Fund, and Life Science Research Trust Fund. $132,203.00 was paid from the Supplemental Pool.
[11] Federal Matching Rate available at http://aspe.hhs.gov/health/fmap12.shtml

- The 6 month waiting period and thirty calendar day delay are not applicable to a child already participating in the program when a parent's income changes.
- Total aggregate premiums cannot exceed 5% of the family's gross income for a 12-month period.
- Premiums must be paid prior to delivery of service.

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How are premiums set?	
Income Category	**Monthly Premium Calculation**
(1) More than 150% and up to and including 185% FPL	Amount is equal to 4% of monthly income between 150% and 185% of FPL for the family size.
(2) More than 185% and up to and including 225% FPL	Amount is equal to 8% of the monthly income between 185% and 225% of the FPL for the family size plus premium calculated in category 1.
(3) More than 225% and up to 300% FPL	Amount is equal 14% of the monthly income between 225% and 300% of FPL for the family size plus the premium calculated in categories 1 and 2.

Study Question 2[12]

What is the impact of CHIP on providing a comprehensive array of community-based wrap-around services for seriously emotionally disturbed children and children affected by substance abuse?

Wraparound services are a class of treatment and support services provided to a seriously emotionally disturbed (SED) child and/or the child's family with the intent of facilitating the child's functioning and transition towards a better mental health state. Wraparound services include family support services, case management, respite care, family assistance, targeted case management, community support services[13], transportation support, social and recreational support, basic needs support and clinical/medical support. The Managed Care health plans are not required by contract to provide wraparound services. However, the health plans do provide these wraparound services when cost effective as a diversion from more intensive levels of care.

Important parameters to be considered are:

- Comparisons of utilization of wraparound services across service delivery systems are focused on evaluating whether managed care organization (MCO) enrollment impacts how and/or what wraparound services are provided. Eligibility and service utilization data from the Department of Mental Health (DMH) and the MO HealthNet Division (MHD) for the evaluation period were compiled and analyzed.
- DMH and MHD have developed joint protocols and guidelines for the provision of wraparound services. DMH provides the funding for the services (either full funding or the state's match). DMH also coordinates and oversees the delivery of these services.

Methodology for Data Analysis

DSS and DMH data on CHIP program eligibility, MCO enrollment and wraparound service utilization beginning January 1, 2011, and ending December 31, 2011, were used in this analysis. There were 1,232 unique children in the CHIP program population who received wraparound services during the study period. For this analysis, the group was further divided into 619 fee-for-service (FFS) participants and 891 managed care organization (MCO) participants; 278 of these received services through both delivery methods at different times during the year and are counted in each category for the services they received through the respective delivery method.

The average child receiving FFS wraparound services received slightly more services on average than a child receiving MCO wraparound services, illustrated in Chart A on the next page. Chart B on the following page shows how the mix of services differed among the populations. For example, 62.4% of the wraparound services received by the FFS population consisted of Case Management, while that represented only 29.9% of the wraparound services received by the MCO population, but community support services accounted for 52.2% of MCO services, compared to 20.3% for FFS services.

The charts on the following page show utilization rates of wraparound services by type in CY 2011

[12] For this question, claims and enrollment data from calendar year 2011 was used.

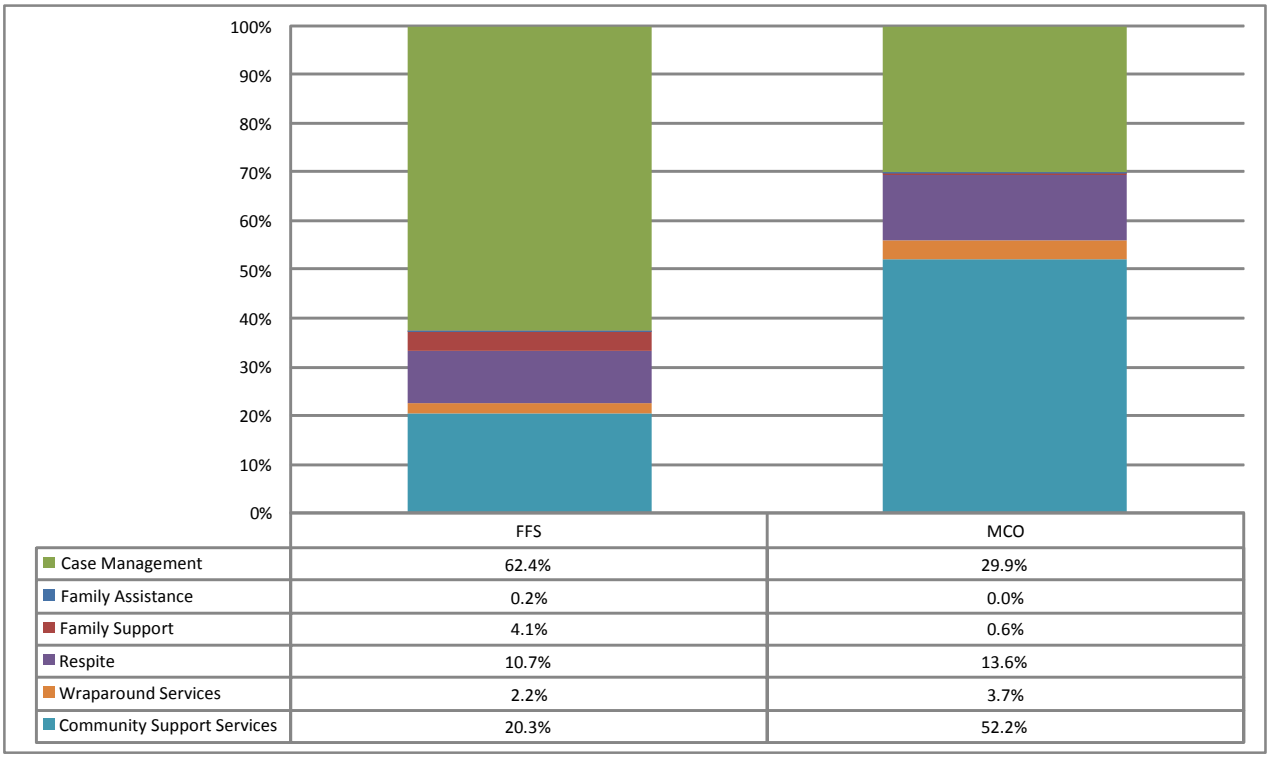
[13] Per recent policy changes, DMH has shifted service delivery preferences from targeted case management to community support services. Services traditionally reported as targeted case management are now being provided as community support services.

CHART A
Quantity of Services (units)

	Family Assistance	Family Support	Other Case Management	Respite	Targeted Case Management	Wraparound Services	Community Support Services	Grand Total
Quantity of Services								
FFS	16	342	3,824	890	1,364	183	1689	8308
MCO	3	49	2,534	1,164	25	317	4466	8558
Services per Child								
FFS	0.0	0.6	6.2	1.4	2.2	0.3	2.7	13.4
MCO	0.0	0.1	2.8	1.3	0.0	0.4	5.0	9.6

Chart B

Mix of Services by FFS and MCO



	FFS	MCO
Case Management	62.4%	29.9%
Family Assistance	0.2%	0.0%
Family Support	4.1%	0.6%
Respite	10.7%	13.6%
Wraparound Services	2.2%	3.7%
Community Support Services	20.3%	52.2%

These statistics cannot be used on their own to determine the quality of wraparound services received by each population. There may be differences in each population that account for the different types of services. Also, the policy shift from targeted case management to community support services appears to have been adopted faster by the managed care delivery system than by FFS providers.

Study Question 3

What is the effect of CHIP on the number of children covered by private insurers?

The shift from private health insurance coverage to public coverage, known as crowd-out, is relatively difficult to measure. Crowd-out is difficult to identify because not all substitution of public for private coverage constitutes crowd-out. A crowd-out situation arises only if the actions taken—people substituting public for private coverage, or employers changing their insurance offerings—would not have occurred in the absence of the public program. If people would otherwise have become uninsured, enrolling in a public program does not constitute crowd-out.[14]

Generally, crowd-out refers to the substitution of publicly funded coverage for existing private coverage. Individuals may choose to forgo coverage available from their employer or in the individual market because publicly funded coverage is more affordable or more comprehensive. Alternatively, employers may choose to drop coverage for their workers once public coverage becomes available.

Different ways of defining crowd-out yield different results. Researchers define crowd-out in multiple ways, reflecting both their own perspectives and the idiosyncrasies of their data. These differences contribute to confusion when estimates are compared. All crowd-out estimates are expressed as ratios, but both the numerators and denominators of these ratios may measure different concepts.

The most common definition compares the reduction in the share of the population with private coverage to the increase in the share of the population with public coverage due to the expansion. Researchers using this definition attempt to estimate the changes due solely to the expanded eligibility over the period of years included in the study.

A congressional report on CHIP by Mathematica Policy Research from December 2011[15] concludes that crowd out in the CHIP program is less than expected:

> "While studies differ in their methods and data sources, existing evidence indicates that some level of crowd out is unavoidable but the magnitude of substitution is lower than many expected and in general concerns about CHIP substituting for private coverage have lessened over time…Estimates of substitution rates from population-based studies range from none to as much as 60 percent of the increase in public coverage from CHIP coming from reductions in private coverage (Dubay and Kenney 2009; Gruber and Simon 2008; Lee et al. 2008; Bansak and Raphael 2007; Davidoff et al. 2005; Hudson et al. 2005; LoSasso and Buchmueller 2004; Cunningham et al. 2002). More recent studies using longitudinal data sources and improved methods for handling cases with both public and private coverage…estimate substitution rates ranging from 7 to 30 percent."

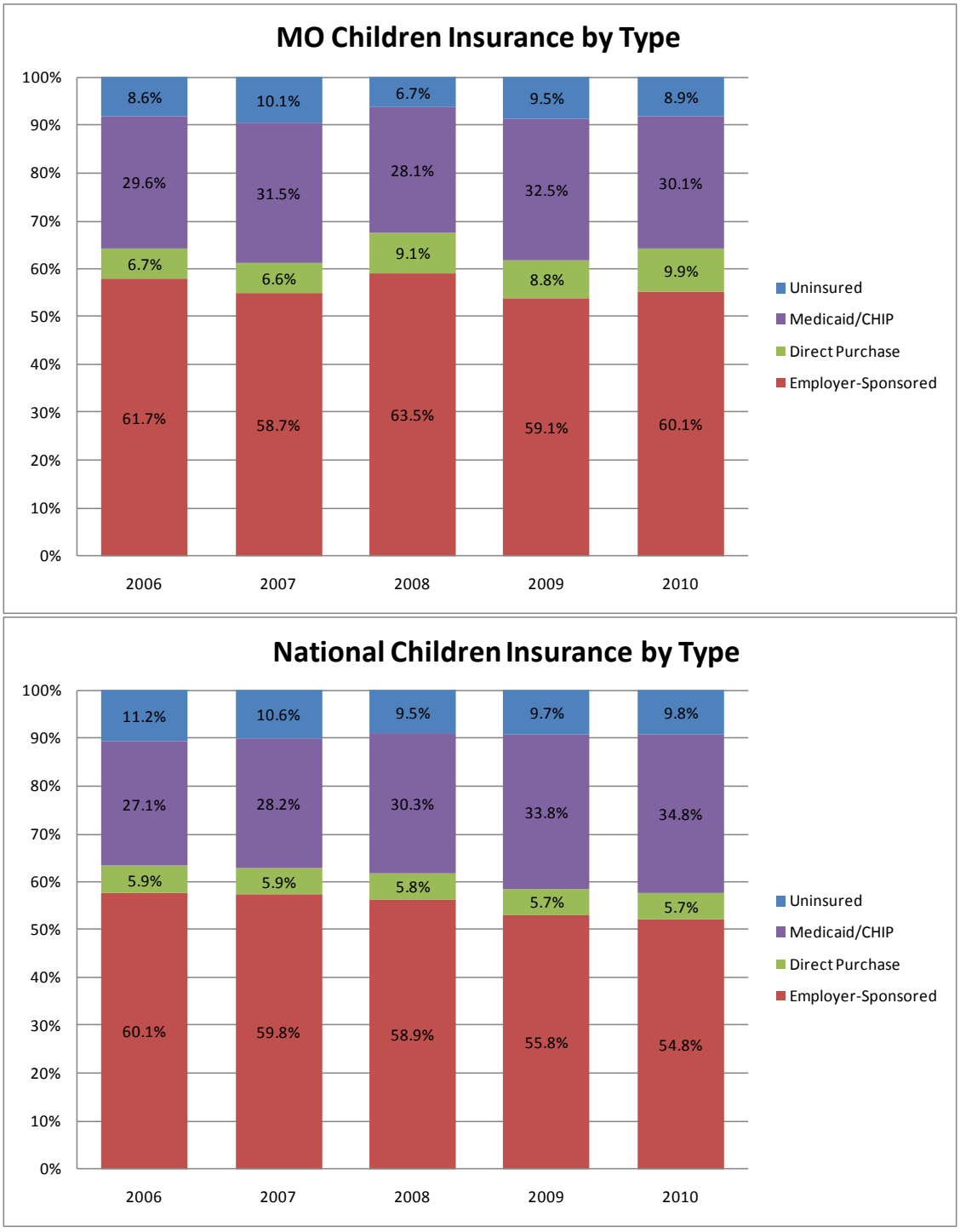
Throughout the first decade of the 21st century, there has been a redistribution of insurance coverage by type both in Missouri and in the nation as a whole. Over this period there has been an overall decline in ESI. In Missouri from 2006 to 2010, ESI rates for kids have fluctuated; the 2010 rate (60.1%) was slightly lower than the 2006 rate (61.7%), while the national rate for kids dropped from 60.1% to 54.8% over the same period. However, the ESI rate in Missouri in 2010 actually increased from the 2009 rate of 59.1%, even as the national rate continued the downward trend in 2010, from the 2009 rate of 55.8%. Direct purchase of insurance for kids in Missouri, after a major drop from 10.3% in 2005 to 6.7% in 2006, has since risen to the 2010 rate of 9.9%. Meanwhile, the combined U.S. census data for Medicaid and CHIP in Missouri shows a slight increase from 29.6% in 2006 to 30.1% in 2010, even as the national figure has risen from 27.1% in 2006 to 34.8% in 2010.

[14] Davidson, G., L. A. Blewett, & K. T. Call (June 2004). *Public Program crowd-out of private coverage: What are the issues?* The Robert Wood Johnson Foundation: Research Synthesis Report No. 5.

[15] Mathematica Policy Research (December 2011). *Chidren's Health Insurance Program: An Evaluation (1997-2010).*

This data suggests that the expansion of the CHIP program has had little to no negative impact on the number of children covered by private insurance, and that in fact Missouri is outpacing the rest of the nation in maintaining private health insurance rates, both in overall percentage and in trend in the last 5 years. The next two charts illustrate these 5 year trends.

Missouri Children Compared to U.S. Children[16]



[16] Data is from the U.S. Census data which combines the Medicaid and CHIP programs. Columns do not add up to 100% in this data source, as people can be in more than one category.

In addition, the Mathematica Policy Research report states that the percentage of children with incomes below 200 percent of the poverty line who are uninsured fell from 24.6 percent in 1997 to 15.3 percent in 2010. In analyzing the year by year rates, the report concluded that "Despite the recent increase in the number of low-income children…access to CHIP and Medicaid has kept the number of uninsured low-income children relatively flat during the post-recession time period."[17]

The modest crowd-out that did occur was overwhelmingly due to an individual or family involuntarily losing its private coverage or finding private coverage to be unaffordable. For example, 93 percent of those who previously had private coverage and enrolled in CHIP did so either due to the loss of private coverage (such as an employer no longer offering health coverage) or because the private coverage had become unaffordable, according to a rigorous ten-state analysis conducted as part of the congressionally mandated CHIP evaluation.

Much of the research on crowd-out in children's coverage finds that it is a significant factor only when states expand coverage further up the income scale, since children in moderate income families are more likely to have access to affordable employer-based coverage than their lower-income counterparts. Using a broad definition of crowd-out, CBO concludes that between 25 percent and 50 percent of children enrolled in CHIP — which covers children with incomes too high to qualify for Medicaid — previously had private health insurance.[18]

The comparison of Missouri's population by insurance type and status to the national trends over the last 5 years (above) is a strong indicator that the policies in Missouri designed to minimize crowd-out, like the requirement for 6 prior months of no coverage before enrolling in CHIP, have been successful.

[17] Mathematica Policy Research (December 2011). *Chidren's Health Insurance Program: An Evaluation (1997-2010).*
[18] Congressional Budget Office, "The State Children's Health Insurance Program," May 2007.

APPENDIX I:
Hospitalization and Emergency Room Utilization Rates by Payer/Program

Review period: January 1, 2010 - December 31, 2010
Data source: Missouri Department of Health and Senior Services (DHSS)

		Rate				
	MO HealthNet Region:	*Eastern*	*Central*	*Western*	*Other*	***State***
	Cal. Year:					
		Eastern	*Central*	*Western*	*Other*	
Asthma hospitalizations age <19	2000 CHIP	5.2	1.8	3.9	1.7	**2.8**
Benchmark = 2.25/1,000 pop.	2001 CHIP	3.0	1.8	2.3	1.3	**2.1**
Healthy People 2000	2002 CHIP	2.5	1.8	2.9	1.2	**1.9**
Ref. footnote in report.	2003 CHIP	2.9	1.3	2.7	1.6	**2.1**
	2004 CHIP	2.9	1.2	1.6	1.2	**1.8**
	2005 CHIP	2.6	0.8	1.6	1.0	**1.6**
	2006 CHIP	2.3	1.0	2.3	0.9	**1.6**
	2007 CHIP	3.5	0.7	1.9	0.8	**1.9**
	2008 CHIP	4.6	1.4	2.1	1.2	**2.4**
	2009 CHIP	4.8	1.8	3.2	1.6	**2.9**
	2010 CHIP	3.6	1.0	1.6	1.2	**2.0**
	Change from 2000 to 2010	**-31.4%**	**-43.1%**	**-58.6%**	**-26.5%**	**-29.9%**
	2000 Non-MO HealthNet	1.3	0.9	1.1	0.9	**1.1**
	2001 Non-MO HealthNet	1.1	0.7	1.0	0.7	**0.9**
	2002 Non-MO HealthNet	1.2	0.8	0.8	0.8	**1.0**
	2003 Non-MO HealthNet	1.1	0.8	1.0	0.7	**0.9**
	2004 Non-MO HealthNet	1.3	1.1	0.8	0.8	**1.0**
	2005 Non-MO HealthNet	1.3	0.6	1.0	0.8	**1.0**
	2006 Non-MO HealthNet	1.2	0.8	0.9	0.7	**1.0**
	2007 Non-MO HealthNet	1.2	0.6	0.9	0.7	**0.9**
	2008 Non-MO HealthNet	1.4	0.7	0.7	0.7	**1.0**
	2009 Non-MO HealthNet	1.1	0.7	0.6	0.6	**0.8**
	2010 Non-MO HealthNet	1.2	0.5	0.6	0.6	**0.9**
	Change from 2000 to 2010	**-7.4%**	**-41.9%**	**-42.6%**	**-31.4%**	**-22.8%**
	2000 MO HealthNet	7.6	3.4	4.5	2.6	**4.6**
	2001 MO HealthNet	4.9	2.9	3.2	2.9	**3.6**
	2002 MO HealthNet	5.3	3.2	3.6	3.0	**3.9**
	2003 MO HealthNet	5.3	2.7	3.1	2.8	**3.7**
	2004 MO HealthNet	5.0	2.3	2.5	2.7	**3.4**
	2005 MO HealthNet	4.6	2.6	3.0	2.1	**3.2**
	2006 MO HealthNet	5.0	3.1	3.0	2.3	**3.4**
	2007 MO HealthNet	5.0	2.3	2.9	2.5	**3.4**
	2008 MO HealthNet	5.6	2.0	2.7	1.9	**3.2**
	2009 MO HealthNet	5.2	2.4	3.4	2.3	**3.5**
	2010 MO HealthNet	4.8	2.0	2.6	2.0	**3.0**
	Change from 2000 to 2010	**-37.6%**	**-40.2%**	**-41.9%**	**-23.9%**	**-34.5%**
		Eastern	*Central*	*Western*	*Other*	
Asthma ER visits age <19	2000 CHIP	24.7	9.0	19.5	7.1	**13.3**
Benchmark = 10/1,000 pop.	2001 CHIP	17.7	5.1	13.5	7.8	**11.4**
CDC NCHS Health E-Stats	2002 CHIP	19.5	11.5	17.4	8.2	**13.3**
Ref. footnote in report.	2003 CHIP	18.4	6.6	17.5	8.3	**12.3**
	2004 CHIP	15.7	5.6	12.0	6.5	**10.1**
	2005 CHIP	18.5	6.8	11.8	7.1	**11.3**
	2006 CHIP	19.9	8.1	13.7	6.3	**11.9**
	2007 CHIP	20.8	5.4	16.0	6.2	**12.4**
	2008 CHIP	22.5	7.5	18.1	5.4	**13.3**
	2009 CHIP	24.7	7.5	16.2	8.4	**14.8**
	2010 CHIP	23.5	6.8	16.0	7.5	**14.1**
	Change from 2000 to 2010	**-5.0%**	**-24.5%**	**-17.9%**	**6.2%**	**5.7%**
	2000 Non-MO HealthNet	7.6	3.0	6.1	3.3	**5.5**
	2001 Non-MO HealthNet	6.6	3.0	6.0	3.3	**5.2**
	2002 Non-MO HealthNet	6.9	2.9	6.1	3.3	**5.4**
	2003 Non-MO HealthNet	6.6	2.8	5.5	3.2	**5.1**
	2004 Non-MO HealthNet	6.9	3.2	5.1	3.5	**5.3**
	2005 Non-MO HealthNet	6.8	3.1	4.8	2.8	**5.0**
	2006 Non-MO HealthNet	6.2	3.1	4.9	3.1	**4.8**
	2007 Non-MO HealthNet	5.7	2.5	5.0	3.1	**4.5**
	2008 Non-MO HealthNet	6.2	2.7	4.6	3.1	**4.7**
	2009 Non-MO HealthNet	6.0	2.9	4.2	2.9	**4.5**
	2010 Non-MO HealthNet	5.6	2.3	4.1	2.6	**4.1**
	Change from 2000 to 2010	**-26.0%**	**-23.9%**	**-33.2%**	**-20.8%**	**-25.6%**
	2000 MO HealthNet	36.2	13.2	26.2	10.0	**21.7**
	2001 MO HealthNet	28.1	10.7	22.8	9.7	**18.5**
	2002 MO HealthNet	31.0	11.9	22.9	10.6	**19.9**
	2003 MO HealthNet	28.0	11.6	20.2	13.4	**18.0**
	2004 MO HealthNet	25.0	9.9	17.6	8.9	**16.0**
	2005 MO HealthNet	26.5	11.1	17.8	8.8	**16.6**
	2006 MO HealthNet	30.1	11.2	17.1	8.2	**17.3**
	2007 MO HealthNet	28.1	11.2	18.7	8.6	**17.2**
	2008 MO HealthNet	26.9	9.5	17.3	7.5	**16.3**
	2009 MO HealthNet	28.8	11.1	18.5	8.1	**17.5**
	2010 MO HealthNet	30.0	10.2	21.0	8.6	**18.5**
	Change from 2000 to 2010	**-17.1%**	**-22.6%**	**-19.9%**	**-14.6%**	**-14.5%**

APPENDIX I:
Hospitalization and Emergency Room Utilization Rates by Payer/Program

Review period: January 1, 2010 - December 31, 2010
Data source: Missouri Department of Health and Senior Services (DHSS)

ER visits age <19
Benchmark = 400/1,000 pop.
Health, United States, 2005. CDC
Ref. footnote in report.

		Rate				
MO HealthNet Region:						
	Cal. Year:	*Eastern*	*Central*	*Western*	*Other*	***State***
	2000 CHIP	367.6	393.4	388.4	546.3	**463.4**
	2001 CHIP	490.1	497.3	471.6	531.9	**506.1**
	2002 CHIP	525.9	496.8	467.8	517.9	**508.1**
	2003 CHIP	511.0	521.9	465.8	590.0	**508.7**
	2004 CHIP	403.2	467.2	381.3	453.2	**426.2**
	2005 CHIP	436.3	467.8	390.7	459.8	**439.8**
	2006 CHIP	478.9	528.9	421.4	490.7	**477.1**
	2007 CHIP	517.3	516.3	467.8	487.5	**495.2**
	2008 CHIP	562.8	526.8	539.4	524.6	**539.1**
	2009 CHIP	646.7	533.7	576.0	589.6	**595.3**
	2010 CHIP	576.1	459.2	485.0	513.6	**518.4**
	Change from 2000 to 2010	**56.7%**	**16.7%**	**24.9%**	**-6.0%**	**11.9%**
	2000 Non-MO HealthNet	262.1	218.6	269.9	256.6	**257.9**
	2001 Non-MO HealthNet	256.6	244.9	296.3	259.9	**265.0**
	2002 Non-MO HealthNet	263.4	251.4	284.4	255.6	**264.7**
	2003 Non-MO HealthNet	265.3	253.1	281.8	256.9	**265.5**
	2004 Non-MO HealthNet	244.6	271.4	268.5	274.2	**260.4**
	2005 Non-MO HealthNet	243.9	442.7	248.1	258.4	**251.0**
	2006 Non-MO HealthNet	231.1	252.4	238.7	251.5	**240.3**
	2007 Non-MO HealthNet	232.5	236.2	233.4	253.5	**238.9**
	2008 Non-MO HealthNet	227.7	226.3	234.6	309.9	**247.1**
	2009 Non-MO HealthNet	216.8	216.6	219.9	258.6	**227.0**
	2010 Non-MO HealthNet	196.4	182.0	189.0	226.0	**199.7**
	Change from 2000 to 2010	**-25.1%**	**-16.7%**	**-30.0%**	**-11.9%**	**-22.5%**
	2000 MO HealthNet	713.6	681.7	637.0	656.8	**676.0**
	2001 MO HealthNet	642.4	704.4	628.4	709.9	**671.0**
	2002 MO HealthNet	674.9	710.0	581.7	708.6	**673.2**
	2003 MO HealthNet	691.3	754.9	618.1	737.8	**700.7**
	2004 MO HealthNet	596.3	700.9	557.1	654.1	**620.5**
	2005 MO HealthNet	602.1	765.1	570.7	688.0	**662.5**
	2006 MO HealthNet	696.9	547.5	575.4	697.4	**680.2**
	2007 MO HealthNet	709.8	769.4	623.6	719.6	**702.0**
	2008 MO HealthNet	717.6	727.6	711.6	703.8	**713.4**
	2009 MO HealthNet	794.2	744.9	748.2	756.8	**765.6**
	2010 MO HealthNet	740.8	654.7	666.6	684.8	**695.0**
	Change from 2000 to 2010	**3.8%**	**-4.0%**	**4.6%**	**4.3%**	**2.8%**

Preventable hospitalizations age <19
Benchmark = 7.2/1,000 pop.
Kozak, Hall and Owings.
Ref. footnote in report.

		Eastern	*Central*	*Western*	*Other*	
	2000 CHIP	10.5	8.0	9.5	9.8	**9.7**
	2001 CHIP	9.9	8.8	6.7	10.5	**9.4**
	2002 CHIP	6.8	9.2	8.9	10.0	**8.9**
	2003 CHIP	6.7	6.6	8.2	9.9	**8.0**
	2004 CHIP	7.0	7.0	6.9	8.8	**7.7**
	2005 CHIP	7.5	6.4	6.2	8.4	**7.5**
	2006 CHIP	8.2	8.1	6.3	9.2	**8.2**
	2007 CHIP	8.7	6.3	7.7	7.7	**7.8**
	2008 CHIP	11.1	8.3	7.3	8.9	**9.1**
	2009 CHIP	13.4	8.0	10.0	10.5	**10.9**
	2010 CHIP	10.7	7.1	8.4	9.0	**9.1**
	Change from 2000 to 2010	**1.7%**	**-10.6%**	**-11.2%**	**-8.1%**	**-6.0%**
	2000 Non-MO HealthNet	5.5	4.9	4.9	5.7	**5.4**
	2001 Non-MO HealthNet	6.0	5.6	5.0	6.1	**5.8**
	2002 Non-MO HealthNet	5.9	6.4	5.1	6.2	**5.9**
	2003 Non-MO HealthNet	5.7	6.1	4.7	5.8	**5.5**
	2004 Non-MO HealthNet	6.1	6.3	4.7	6.2	**5.8**
	2005 Non-MO HealthNet	6.5	7.0	4.9	6.5	**6.2**
	2006 Non-MO HealthNet	5.9	5.8	4.5	5.9	**5.5**
	2007 Non-MO HealthNet	5.9	5.2	4.6	5.0	**5.6**
	2008 Non-MO HealthNet	6.0	5.7	3.9	5.4	**5.3**
	2009 Non-MO HealthNet	6.5	5.8	3.9	5.7	**5.6**
	2010 Non-MO HealthNet	5.8	5.1	3.7	4.4	**4.9**
	Change from 2000 to 2010	**3.7%**	**3.5%**	**-23.5%**	**-22.0%**	**-9.1%**
	2000 MO HealthNet	17.8	15.0	13.5	16.6	**16.3**
	2001 MO HealthNet	14.9	15.0	12.1	19.3	**16.1**
	2002 MO HealthNet	13.7	14.8	12.0	18.2	**15.2**
	2003 MO HealthNet	13.5	13.7	10.4	16.8	**14.2**
	2004 MO HealthNet	12.8	12.5	10.6	16.1	**14.0**
	2005 MO HealthNet	13.3	14.5	11.3	17.0	**14.5**
	2006 MO HealthNet	14.3	14.7	11.3	17.7	**15.0**
	2007 MO HealthNet	14.3	13.6	11.1	17.1	**14.7**
	2008 MO HealthNet	16.5	13.5	10.6	17.1	**15.0**
	2009 MO HealthNet	17.5	15.8	12.6	19.0	**16.7**
	2010 MO HealthNet	15.2	12.4	11.0	15.7	**14.1**
	Change from 2000 to 2010	**-14.4%**	**-17.0%**	**-18.6%**	**-5.0%**	**-13.4%**

APPENDIX II:
DMH-DSS Wrap-Around Service Codes and Titles

Review period: January 1, 2010 - December 31, 2010

Wrap-Around Services (for children with SED and those affected by Substance Abuse)		
02500H	FAMILY SUPPORT	SED WA
20000H	CASE MNGMT-BACHELOR IND	SED WA
20001H	CASE MNGMT-PARAPROFESS IND	SED WA
20003H	CASE MNGMT-PHYSICIAN IND	SED WA
20004H	CASE MNGMT-LIC QMHP IND	SED WA
20005H	CASE MNGMT-LIC PSYCH IND	SED WA
20006H	CASE MNGMT-AD PR NURSE IND	SED WA
20008H	CASE MGMT-CHILD PSYCHITRST	SED WA
39601W	WRAP-AROUND SRVCS-YOUTH IND	SED WA
39603W	WRAP-AROUND SRVCS ADULT AS	SED WA
440001	RESPITE CARE - IND. -	SED WA
44001H	RESPITE CARE - INDIVIDUAL	SED WA
49004H	CHILD/ADOLES FAMILY ASSIST	SED WA
Y3127K	TARGET CASE MGMT (TCM) YTH	SED WA
Y3128K	TARGET CASE MGMT (TCM) YTH	SED WA

SED WA = SED Wrap-Around Service

Review period: January 1, 2011 - December 31, 2011

Wrap-Around Services for children with SED and those affected by Substance Abuse		
02500H	FAMILY SUPPORT	SED WA
20000H	CASE MNGMT-BACHELOR IND	SED WA
20001H	CASE MNGMT-PARAPROFESS IND	SED WA
20003H	CASE MNGMT-PHYSICIAN IND	SED WA
20004H	CASE MNGMT-LIC QMHP IND	SED WA
20005H	CASE MNGMT-LIC PSYCH IND	SED WA
20006H	CASE MNGMT-AD PR NURSE IND	SED WA
20008H	CASE MGMT-CHILD PSYCHITRST	SED WA
39601W	WRAP-AROUND SRVCS-YOUTH IND	SED WA
440001	RESPITE CARE - IND. -	SED WA
49004H	CHILD/ADOLES FAMILY ASSIST	SED WA
Y3127K	TARGET CASE MGMT (TCM) YTH	SED WA
Y3128K	TARGET CASE MGMT (TCM) YTH	SED WA
H0036	COMMUNITY SUPPORT SERVICES	SED WA

SED WA = SED Wrap-Around Service