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Outcomes of care for Iowa Medicaid enrollees

State Fiscal Year 2009

Final Report to the Iowa Department of Human Services

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INTRODUCTION

Recent health care reforms leave practitioners, policymakers and researchers wondering what systematic changes will occur in the next few years. No matter how the system changes the need to measure the success of this change increases as implementation moves forward.

The University of Iowa Public Policy Center has provided the Iowa Department of Human Services (IDHS) with outcome measures related to the Medicaid program for over 15 years. For the past six years the PPC has provided a consistent set of measures as recommended by CMMS that include:

- Well-child visits in the first 15 months of life
- Well-child visits in the third, fourth, fifth and sixth years of life
- Children and adolescents' access to primary care practitioners
- Use of appropriate medications for people with asthma
- Adults' access to preventive/ambulatory health services
- Prenatal and postpartum care
- Comprehensive diabetes care: Hemoglobin A1c testing

In addition, Annual Dental Visit has also been included due to the dental disparities within Iowa.

ELIGIBILITY

Eligibility measures are calculated for three groups: people in managed care (MediPASS); people in the traditional fee-for-service program (FFS); and people enrolled through Supplemental Security Income program (SSI). Enrollees eligible for managed care are income eligible and live in a county where MediPASS (primary care case management) is available. Enrollees included in the FFS measures live in counties that do not have a managed care option available because providers are not willing to participate or counties that may have a managed care option that is not available to everyone due to geographic constraints. The SSI population is included to provide additional information regarding their care process and outcomes.

Figure 1 indicates the percent of enrollees by age and gender enrolled for at least 1 month in one of the three programs during SFY 2009. Of 374,410 enrollees who were

eligible for one of the three programs during SFY 2009, 217,090 were eligible for at least 11 months an increase of almost 20,000 enrollees from SFY 2008.

Figure 1. Comparisons of demographics for Medicaid enrollees who were eligible for at least 1 month in the measurement year, SFY 2009 by program

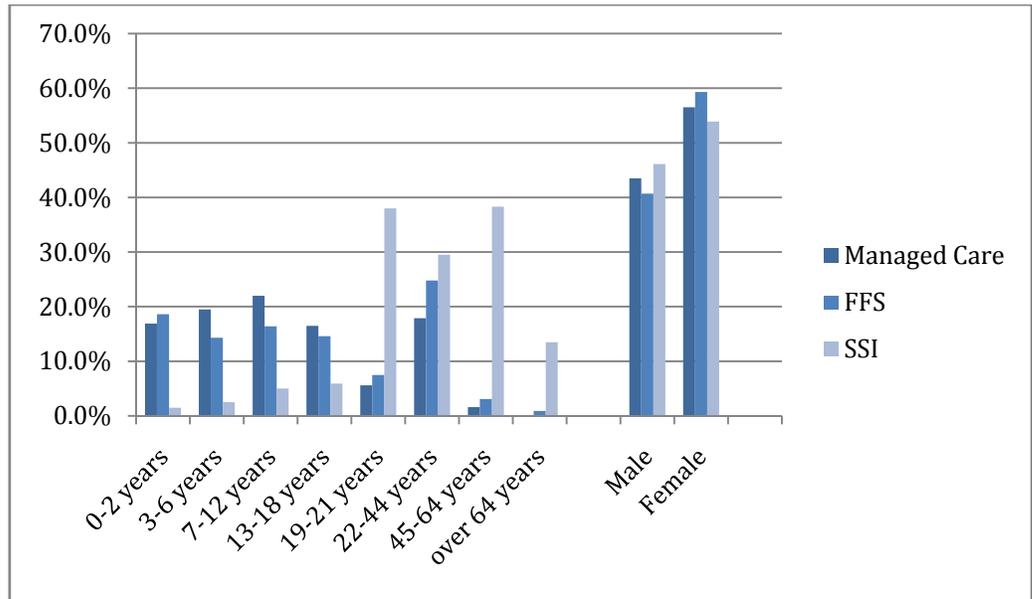
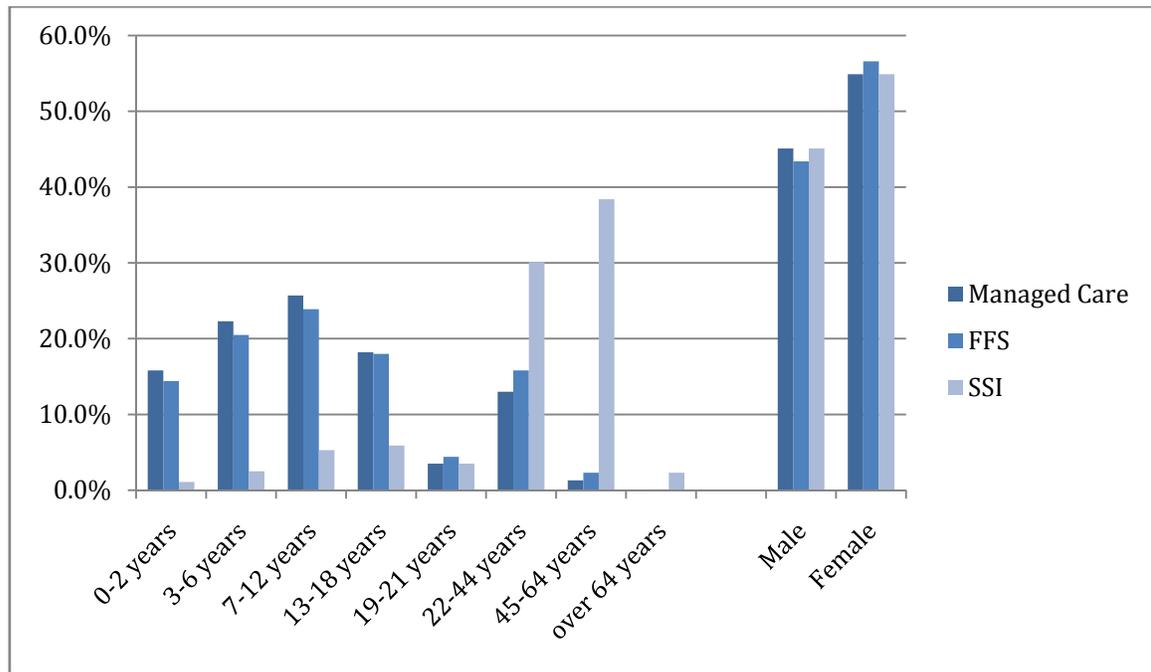


Figure 2. Comparisons of demographics for Medicaid enrollees who were eligible for at least 11 months in the measurement year, SFY 2009 by program



Because disclosing race is optional for Medicaid enrollees, we have included the distribution in Table 1 utilizing the categorizations as listed by Medicaid. The majority of enrollees indicate their race/ethnicity as white. Enrollees indicating their race/ethnicity as Black compose another 8% of the population, while those indicating Hispanic or Multiple-Hispanic compose another 8%. Perhaps most surprising is the percent of enrollees that do not report race/ethnicity. Since this piece of information is optional, nearly 50,000 enrollees (23%) from the three programs are listed as unknown.

Table 1. Comparisons of race/ethnicity for Medicaid enrollees who were eligible for at least 11 months in the measurement year, SFY 2009 by program

		Managed Care	FFS	SSI	Total
White	Number	72975	24908	26920	124803
	%	55.3%	53.1%	70.3%	57.5%
Black	Number	9101	5332	3710	18143
	%	6.9%	11.4%	9.7%	8.4%
American Indian	Number	30	747	145	922
	%	<1%	1.6%	0.4%	0.4%
Asian	Number	996	441	542	1979
	%	0.8%	0.9%	1.4%	0.9%
Hispanic	Number	10118	1850	403	12371
	%	7.7%	3.9%	1.1%	5.7%
Pacific Islander	Number	107	47	9	163
	%	0.1%	0.1%	<0.1%	0.1%
Multiple-Hispanic	Number	3681	1155	407	5243
	%	2.8%	2.5%	1.1%	2.4%
Multiple-Other	Number	2106	1239	142	3487
	%	1.6%	2.6%	0.4%	1.6%
Unknown	Number	32761	11189	6029	49979
	%	24.8%	23.9%	15.7%	23.0%

OUTCOME MEASURES

Well-child visits in the first 15 months of life

Recommendations from the American Academy of Pediatrics and the Iowa Department of Public Health Early Periodic Screening, Diagnosis and Treatment (EPSDT) schedules continue to indicate that children have at least 8 visits during the first 15

months of life¹. A child following the schedule will experience well-child visits at 2-3 days, 1 month, 2 months, 4 months, 6 months, 9 months, 12 months, and 15 months of age. These visits are to assess and address developmental issues, provide anticipatory guidance to parents, and determine the health of the child. Often the visits are used to provide needed immunizations for children, though immunizations are not required at all scheduled visits. For the HEDIS measures we indicate the proportion of children who turned 15 months of age during SFY 2009 and had 0 visits, 1 visit, 2 visits, 3 visits, 4 visits, 5 visits, and 6 or more visits. To be included in the measure children had to be eligible for at least 14 of the first 15 months of life. Tables 2 and 3 provide the rates for the three groups. Table 2 provides the rates of well child visits based on the timing recommended by AAP as listed above, only visits that fall within a 2-4 week window of the recommended time are counted, while Table 2 includes all visits regardless of whether they occurred within the time frame of the AAP recommendations. These numbers provide endpoints for the visit estimates. Though it may not be critical that well-child visits occur at precisely the time recommended, most providers would agree that the schedule is reasonable and provides for the evaluation of developmental delays and provision of anticipatory guidance at crucial junctures.

Table 2. Number and proportion of children receiving from zero to six or more well-child visits timed as recommended by AAP in the first 15 months of life, SFY 2009

		Managed Care	FFS	SSI	Total
0 visits	Number	1197	259	31	1487
	%	13.1%	8.7%	16.5%	12.1%
1 visit	Number	700	165	16	881
	%	7.7%	5.6%	8.5%	7.2%
2 visits	Number	645	218	20	883
	%	7.1%	7.4%	10.6%	7.2%
3 visits	Number	814	273	30	1117
	%	8.9%	9.2%	16.0%	9.1%
4 visits	Number	1213	437	36	1686
	%	13.3%	14.8%	19.1%	13.7%
5 visits	Number	1647	627	36	2310
	%	18.0%	21.2%	19.1%	18.8%
6 or more visits	Number	2923	982	19	3924
	%	32.0%	33.2%	10.1%	31.9%
Total	Number	9139	2961	188	12288
	%	100.0%	100.0%	100.0%	100.0%

¹ <http://www.iowaepsdt.org/ScreeningResources/PeriodicityChart2009.pdf>

Table 3. Number and proportion of children receiving from zero to six or more well-child visits, regardless of timing, in the first 15 months of life, SFY 2009

		Managed Care	FFS	SSI	Total
0 visits	Number	899	216	30	1145
	%	9.8%	7.3%	16.0%	9.3%
1 visit	Number	709	155	6	870
	%	7.8%	5.2%	3.2%	7.1%
2 visits	Number	608	187	17	812
	%	6.7%	6.3%	9.0%	6.6%
3 visits	Number	562	202	21	785
	%	6.1%	6.8%	11.2%	6.4%
4 visits	Number	803	279	30	1112
	%	8.8%	9.4%	16.0%	9.0%
5 visits	Number	1099	434	20	1553
	%	12.0%	14.7%	10.6%	12.6%
6 or more visits	Number	4459	1488	64	6011
	%	48.8%	50.3%	34.0%	48.9%
Total	Number	9139	2961	188	12288
	%	100.0%	100.0%	100.0%	100.0%

Whether we are looking at the rates in Table 2 or Table 3 it is clear that the proportion of children receiving at least 6 well child visits is not acceptable. Though it is nearly impossible to have all children obtain all 8 visits, it is reasonable to expect that all children would have at least 1 well-child visit and that more than 50% would obtain 6 or more visits.

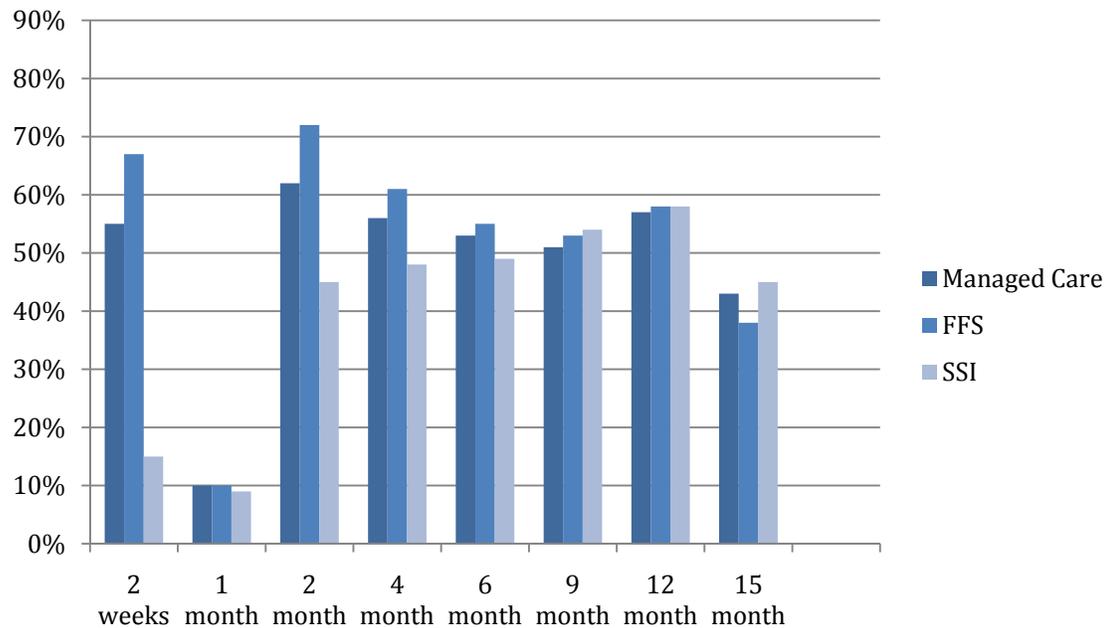
In an attempt to determine which well-child visits are most likely to be missed by Medicaid enrolled children, we began to calculate the proportion of children who were documented at each visit within a one month window on either side of the suggested visit time with the SFY 2007 outcome report. For example, a child born on July 1, 2008 would be expected to have a 1 month visit on August 1, 2008. If a well-child visit occurred between July 16, 2008 and August 14, 2008 we considered the child to have had a 1 month well-child visit. We continue to find that the 2 week and 1 month visits are most likely provided as one visit for most children.

In addition, this year we removed screening visits from the counts. These are visits that appear in the claims data with T1015 or T1016 as the CPT codes. These claims meet the protocol set by HEDIS with a diagnosis code of V70.0-V70.9; however the activities represented by these codes are screening and normally do not include the level of

evaluation and guidance that are expected in a well-child visit. Removing these visits reduced the proportion of children that had well-child visits at all recommended times.

Children in the SSI program continue to be the least likely to get a well-child visit at any time. Further research is required to determine why this may be.

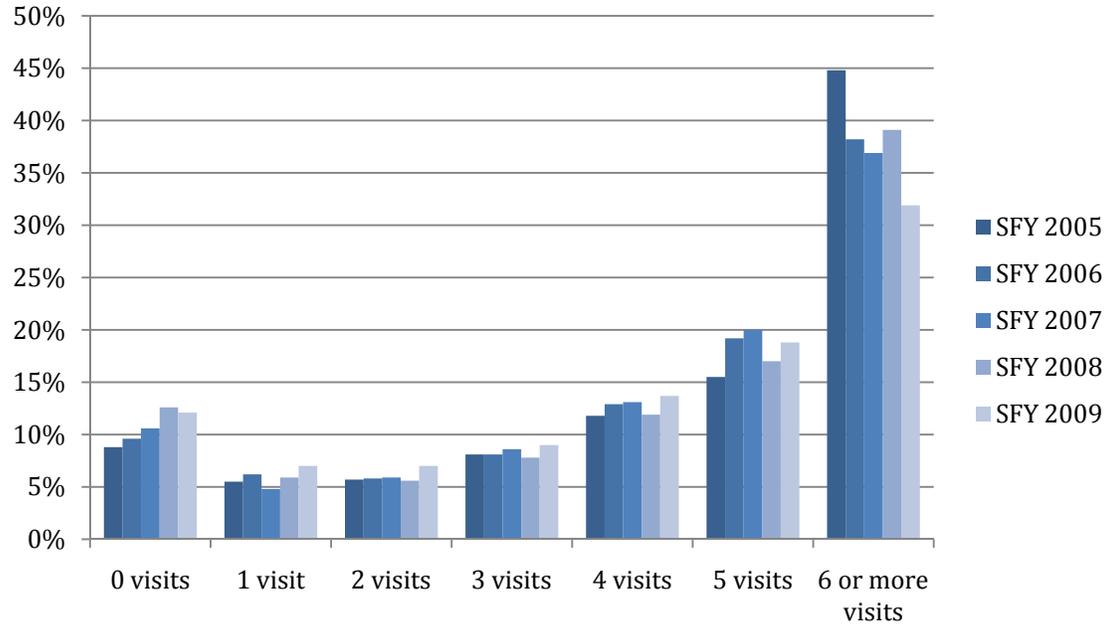
Figure 3. Proportion of children with a well-child visit at each recommended time by managed care program, SFY 2009



In Figure 4 we show the trend for visits in the first 15 months of life across all groups over the last 5 years. For SFY 2009 we used only children that were in managed care or FFS to avoid the bias created by the low proportion of children with visits in the SSI population. The figure shows that the number of children that had no well-child visits in the first 15 months of life may be leveling off over time, though it has increased for the previous 3 years.

Only about 30% of children were able to access 6 or more well-child visits in the first 15 months of life at the recommended intervals. Though 100% compliance may be an unreasonable expectation, a target rate of 40% could be set. If timing is not an issue, then the target rate could be set at 50% for the number of visits regardless of timing. Ultimately, it is preferable for the rates for the two methods to become similar as parents begin to understand the importance of timing. We would recommend continuing to monitor the rate through both methods.

Figure 4. Proportion of children by number of well-child visits in the first 15 months of life and measurement year



Well-child visits in the third, fourth, fifth, and sixth years of life

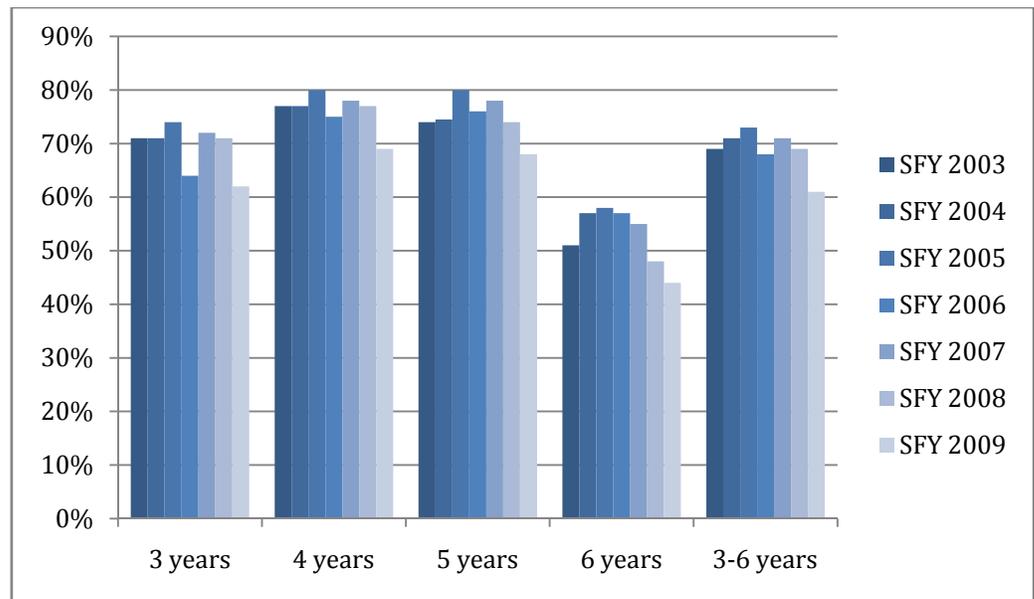
This measure includes children who turned from three through six years of age by June 30, 2009 and were enrolled for at least 11 months in SFY 2009. Table 4 indicates the rates by age and across three to six year olds. As we have seen over and over again, the rate for well-child visits drops after 5 years old. The 5-year check is needed to administer immunizations required to enter the public school system in Iowa. Once a child enters school parents seem much less likely to schedule a well-child visit.

The managed care rate of approximately 60% is just below the national mean for Medicaid HMOs. The well-child visits rate for children 3-6 years old was lower this year due to adjustments in the method designed to eliminate the inclusion of screening visits. Though it is lower than in the past, the rate is still very close to the mean for all Medicaid HMOs nationally. The target rate should be set at 65% with efforts made to work with the department of education to possibly require well-child visits or strongly encourage well-child visits.

Table 4. Proportion of children receiving a well-child visit by program and age, SFY 2009

Age		Managed Care	FFS	SSI
3 years	Number	5018	1682	111
	%	61%	63%	53%
4 years	Number	5135	1693	131
	%	68%	70%	58%
5 years	Number	4836	1601	160
	%	68%	68%	65%
6 years	Number	2971	881	126
	%	45%	40%	48%
3-6 years	Number	17960	5854	528
	%	61%	61%	56%

Figure 5. Proportion of children with a well-child visit by age and year



Adolescent well care

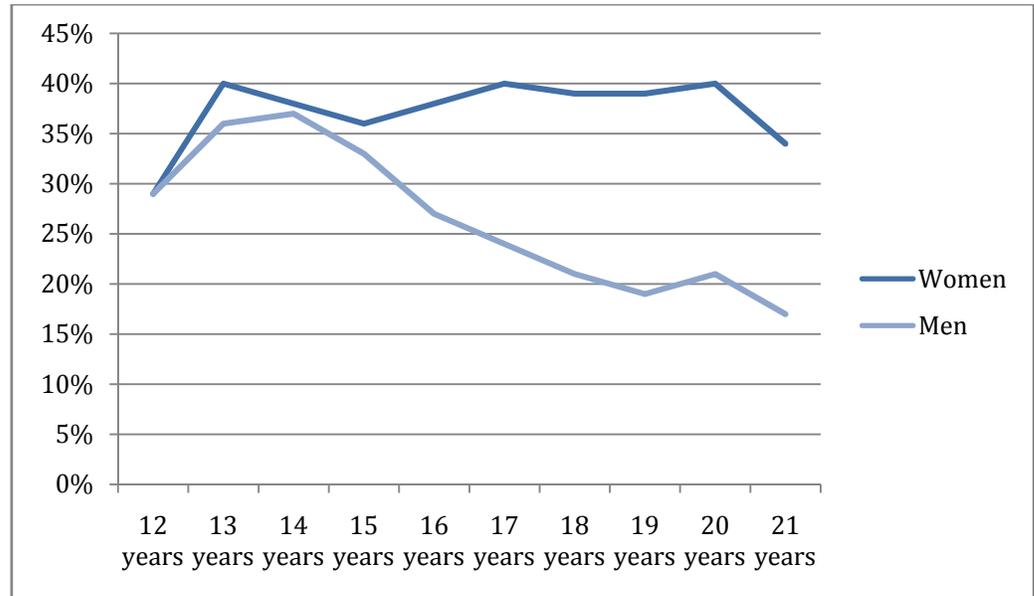
This year adolescent well care was included in the measures to provide information on the level of services that adolescents are accessing. Adolescent well care visits are required for students who would like to participate in school-sponsored sports teams. In addition, the development and recommendation of the HPV vaccine is expected to increase the rate of well care for adolescents as young women must have a visit with a provider to understand the risks and benefits of the vaccination. Adolescent well care visits are important to monitor and guide adolescent as they are exposed to a wide variety of age-specific risks. In addition, adolescents may have questions regarding their health and behavior that they would like to direct to responsible adults other than parents. Providers may be the most logical adults to fill this role.

Table 5 provides the rates of adolescent well care for SFY 2009 by gender. The rates are much lower than those for children 3-5 years of age. Clearly the rate of well care drops after entering school and does not increase significantly over time. Perhaps most problematic is the dramatic difference between the rate for young women and men. Young men were significantly less likely to have a well care visit during this time. Figure 6 provides a chart indicating the percent of adolescents with a well care visit by age and gender. Gender does not appear to make a difference until later in the teen years when women may be more likely to be accessing well care for pregnancy prevention and well woman care.

Table 5. Proportion of adolescents receiving a well care visit by program and age, SFY 2009

		Managed Care	FFS	SSI	Total
Female	Number	6772	2556	472	9800
	%	37%	38%	34%	37%
Male	Number	4553	1601	561	6715
	%	30%	29%	22%	29%
Total	Number	11325	4157	1033	16515
	%	34%	34%	26%	33%

Figure 6. Proportion of adolescents with a well care visit by age and gender, SFY 2009



Annual dental visit

The American Dental Association recommends that all children be seen by six months of age. Early visits are necessary to establish good cleaning habits, understand tooth development and provide guidance on nutrition for healthy teeth. There can be a variety of barriers to oral health care for children including a shortage of dentists who will see children under 3, lack of transportation, parents' fear of dental care, and attitudes of dental office staff toward families with Medicaid coverage.

This year the report provides two measures of dental access. Table 6 presents the Annual dental visit measure just as it has been calculated in the past, with a dental visit being defined a claim submitted by a dentist. These rates for the managed care enrollees are reflected in Figure 7 and remain stable as compared to previous years. Table 7 presents the rates for dental visits regardless of provider type. These visits are defined by claims with a CDT code (D0120-D0999). Provider types for these visits include clinics (including Community Health Centers), dentists and Federally Qualified Health Centers (FQHC). Clinics and FQHCs may not indicate the type of practitioner providing services. Therefore, though Table 6 includes just dentists, Table 7 includes visits to dentists and dental hygienists.

Table 6. Proportion of children and adolescents with an annual dental visit by age and program as measured by a claim submitted by a dentist, SFY 2009

Age		Managed Care	FFS	SSI
2-3 years	Number	5413	1755	116
	%	32%	33%	28%
4-6 years	Number	12856	3731	354
	%	60%	55%	49%
7-10 years	Number	15073	4315	686
	%	63%	55%	52%
11-14 years	Number	11219	3220	675
	%	60%	52%	49%
15-18 years	Number	8043	2588	615
	%	52%	47%	41%
19-21 years	Number	1935	777	479
	%	41%	38%	36%
Total	Number	54539	16386	2925
	%	54%	49%	44%

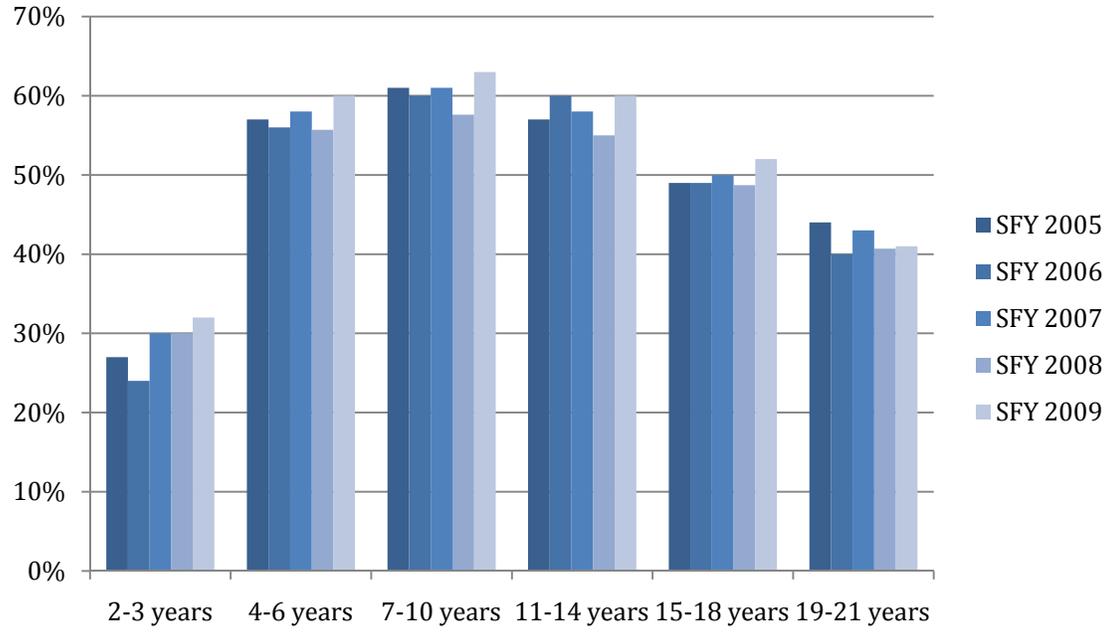
Table 7. Proportion of children and adolescents with an annual dental visit by age and program as measured by the presence of a dental procedure code, SFY 2009

Age		Managed Care	FFS	SSI
2-3 years	Number	6202	2071	139
	%	36%	39%	34%
4-6 years	Number	14092	4309	400
	%	66%	63%	56%
7-10 years	Number	16009	4856	760
	%	66%	62%	58%
11-14 years	Number	11699	3587	726
	%	62%	58%	52%
15-18 years	Number	8329	2796	651
	%	54%	51%	43%
19-21 years	Number	2039	822	511
	%	43%	41%	38%
Total	Number	58370	18441	3187
	%	58%	55%	48%

The proportion of children receiving an annual dental visit by age has remained stable for the past five years. Rates continue to be lower among all programs for children two or three years of age as compared to other age groups. The rates increase for children in the elementary school ages and then decrease again as children become adolescents and young adults, though they remain higher than in the youngest group. The rates are higher for all age groups when the rates include visits to clinics and FQHCs, however, these visits may be screening visits provided by dental hygienists at off-site locations. Screening visits are not used for treatment planning, and may not provide a comprehensive assessment.

The proportion of children who get an annual dental visit is above the mean for Medicaid nationally in all age groups (NCQA does not provide a mean for the 2-3 year olds). It may be most advantageous for Iowa to focus on increasing the target rates for children 2-3 years of age from 30% to 40%. Though increasing the proportion of children receiving a dental visit in all groups is desirable, increasing the rate in the youngest children should translate to an increase in every age group over time.

Figure 7. Proportion of children within the managed care program with an annual dental visit by age and measurement year



Children and adolescents' access to primary care practitioners

Rates of access to primary care practitioners include well-child visits as well as visits for acute or chronic illness care. The denominator consists of children who turned 12-24 months, 25 months to six years, seven to eleven years, and 12-19 years during the measurement year. Children 12 months to six years had to be eligible for at least 11 months during SFY 2009, while children and adolescents 7-19 years old had to be eligible for at least 11 months during SFY 2009 and at least 11 months during SFY 2008. This measure included only physicians with a primary care specialty (general practice, family practice, pediatrics, OB-Gyn, and internal medicine) or visits to the hospital indicating a family practice clinic or general medicine clinic, or a visit to a rural health clinic or FQHC.

The proportions of children and adolescents with access to primary care practitioners are listed in Table 8. The rates are high with every age group within each program achieving an overall rate of over 75%. Over 90% of children 12-24 months within all three programs had access to primary care practitioners. These rates indicate that a lack of well care does not translate into a complete avoidance of needed ambulatory care.

Table 8. Proportion of children and adolescents' with access to primary care practitioners, SFY 2009

Age		Managed care	FFS	SSI
12-24 months	Number	10311	3366	202
	%	97%	97%	95%
25 months-6 years	Number	31915	10146	996
	%	85%	84%	88%
7-11 years	Number	18858	6274	1332
	%	83%	84%	89%
12-19 years	Number	19533	6745	2186
	%	84%	84%	84%
Total	Number	80617	26531	4716
	%	86%	85%	87%

Use of appropriate medications for people with asthma

The denominator for this measure consists of individuals who have been enrolled for at least 11 months during each of SFY 2009 and SFY 2008 and met the case finding criteria for persistent asthma (see Appendix H). The numerator consists of individuals with persistent asthma who were prescribed primary asthma therapy. Changes in the

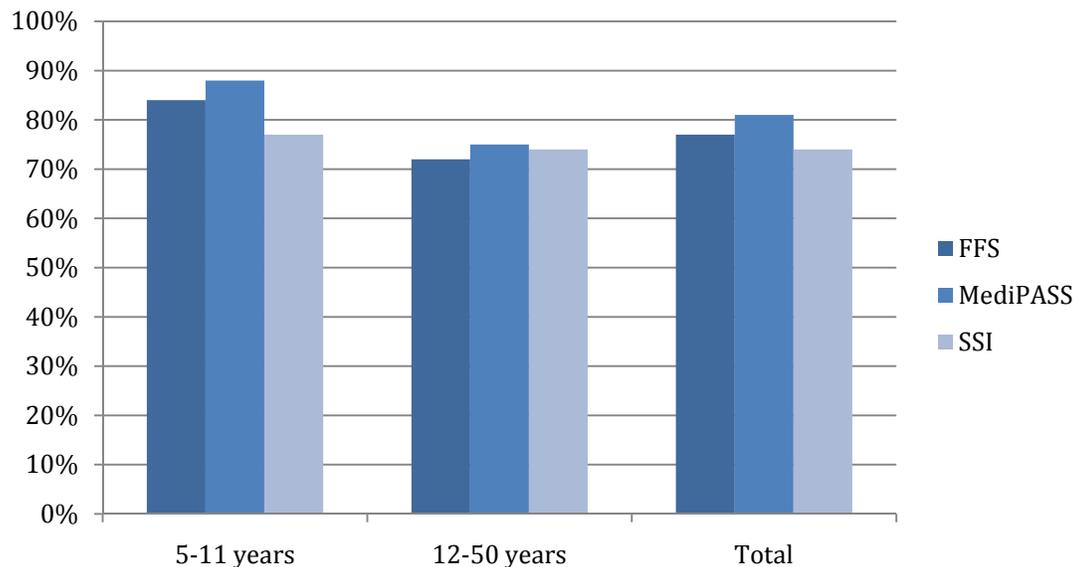
measure over time make it very difficult to compare the rates from year to year. In point of fact, the age categories changed from 5-9 years, 10-17 years, and 18-56 years from the start of the HEDIS measure through SFY 2008 to 5-11 years and 12-50 years.

Table 9. Proportion of children and adults with persistent asthma, SFY 2009

Age		Managed care	FFS	SSI
5-11 years	Number	1203	424	141
	%	3.6%	3.9%	7.3%
12-50 years	Number	1564	607	1225
	%	4.4%	4.5%	6.8%
Total	Number	2767	1031	1366
	%	4.0%	4.2%	6.9%

The proportions of children and adults using the appropriate medication for asthma are shown in Figure 8. The use of preferred therapy for children and adults with persistent asthma are similar across the program types, though they differ by age. Older persons are less likely to have the preferred therapy, however, since the measure combines all persons 12-50 years of age it is difficult to determine what age groups are least likely to receive the therapy.

Figure 8. Proportion of children and adults using appropriate medications for asthma, SFY 2009



Adults' access to preventive/ambulatory health services

Though adults do not comprise a large share of the Medicaid managed care eligible population, they do comprise the largest share of the SSI population. It is imperative that adults, particularly those with chronic illness and/or disability, have adequate access to medical services to ensure the rapid diagnosis and proper treatment for not only acute problems, but chronic illnesses that may be emerging. The denominators for these rates include all adults who turned 20-44 years of age or 45-64 years of age during SFY 2009. The numerators for the rates include the adults in these age groups who had at least one preventive or ambulatory visit during SFY 2009. The rates for adults' access to preventive/ambulatory health services are given in Table 10. Rates are over 60% for the 45-64 year olds regardless of the program and over 85% for the 20-44 year olds in MediPASS or the fee-for-service programs. These rates indicate that access to medical care is high; however it is much lower for enrollees categorized as SSI. Performance targets should be set at 90% for both ages across MediPASS and FFS programs, but should be set at 75% for those in both age groups in SSI.

Table 10. Adults' access to preventive/ambulatory health services by program and age, SFY 2009

Age		MediPASS	FFS	SSI
20-44 years	Number	18226	7983	7933
	%	92%	92%	64%
45-64 years	Number	1566	920	9402
	%	89%	85%	64%
Total	Number	19792	8903	17335
	%	92%	92%	64%

Prenatal and Postpartum Care

The prenatal care rate is the proportion of women with a delivery who received a prenatal care visit within the first trimester or within 42 days of enrollment. The postpartum care rate is the proportion of women with a delivery who had a postpartum visit on or between 21 and 56 days of delivery. The denominator for both rates is the number of women with a live delivery between May 6, 2008 and May 5, 2009, who were continuously enrolled for 43 days prior to delivery through 56 days after delivery. The numerator for the prenatal care rate is the number of women in the denominator who had a prenatal care visit in the first trimester of care or within 42 days of becoming eligible. The numerator for the postpartum care rate is the number of women in the denominator who had a postpartum care visit between 21 and 56 days after delivery.



Between 6 May 2008 and 5 May 2009 there were 12,984 live birth deliveries identified for which the mother was continuously enrolled between 43 days prior to the delivery and 56 days after the delivery.

Table 11 provides the rate of prenatal care based on the time for which the woman was enrolled in Medicaid. The overall rate of prenatal care was 68% in SFY 2009, compared with 66% in SFY 2008.

Women who had bundled prenatal care codes were far more likely to have received early prenatal care than those without bundled care (80% c.f. 27%). Women continuously enrolled for the first trimester were more likely to have received early prenatal care than women whose enrollment commenced during the first trimester (77% c.f. 74%). Approximately 50% of women who were not enrolled until after the first trimester received timely prenatal care.

Rates of postpartum care are presented in Table 12. The rate of postpartum care increased slightly from SFY 2008 to SFY 2009 from 35% to 40%. A number of women have Healthcare Common Procedure Coding System (HCPCS) codes indicative of postpartum care received at a maternal health center or a rural health center. These codes have been included to be indicative of postpartum care in Table 12. HCPCS are not used to in the HEDIS definitions and are, therefore, not routinely used in these outcome analyses. It seems reasonable to modify the HEDIS outcome measures for prenatal and postpartum care to reflect the care received at maternal health centers and rural health centers by including HCPCS codes.

Table 11. Rates of early prenatal care, SFY 2006 to SFY 2009

Enrollment period	Prenatal care not bundled	Bundled prenatal care	Total
Continuously enrolled for first trimester			
2009	36%	87%	77%
2008	41%	87%	76%
2007	37%	88%	81%
2006	46%	90%	81%
Last enrollment segment commenced on or between 219 and 279 days prior to the EDD			
2009	30%	85%	74%
2008	32%	84%	72%
2007	26%	84%	74%
2006	32%	86%	74%
Last enrollment segment commenced less than 219 days prior to the EDD			
2009	15%	63%	50%
2008	16%	62%	47%
2007	15%	62%	50%
2006	15%	66%	51%
Total			
2009	27%	80%	68%
2008	29%	79%	66%
2007	24%	79%	69%
2006	29%	81%	69%

Table 12. Rates of postpartum care: SFY 2006 to SFY 2009[†]

Year	Postpartum care not bundled	Bundled Postpartum care	Total
2009	47%	38%	40%
2008	35%	36%	35%
2007	33%	35%	34%
2006	39%	38%	38%

[†] Using an expanded definition that includes codes indicative of postpartum care received at a maternal health center or a rural health center.

Tables 13 and 14 list the rates of prenatal and postpartum care by year and Medicaid program. Rates of prenatal care were 63% among the FFS program and 71% for managed care. Postpartum care rates were 39% for managed care and 42% for the FFS program.

Table 13. Rates of prenatal care by program, SFY 2006 to SFY 2009

Program	2009	2008	2007	2006
Managed care	71%	68%	70%	70%
Fee-for-service	63%	62%	66%	65%

Table 14. Rates of postpartum care[†] by program, SFY 2006 to SFY 2009

Program	2009	2008	2007	2006
Managed care	39%	36%	33%	36%
Fee-for-service	42%	35%	36%	47%

[†] Using an expanded definition that includes codes indicative of postpartum care received at a maternal health center or a rural health center.

Comprehensive diabetes care: Hemoglobin A1c testing

The HEDIS measure for comprehensive diabetes care includes Hemoglobin A1c testing, HbA1c poor control, HbA1c good control, eye exam, LDL-C screening performed, LDL-C control, medical attention for nephropathy, and blood pressure control. We have chosen Hemoglobin A1c testing as an easy, effective method to determine whether proper monitoring of diabetes is occurring. The denominator for this measure includes all enrollees 18 to 75 years old identified as having diabetes and enrolled for at least 11 months during SFY 2009. The numerator consists of all enrollees in the denominator with Hemoglobin A1c testing done during SFY 2009. The proportion of enrollees with diabetes that had hemoglobin A1c testing are shown in Table 15 by program. The proportion of adults with testing is highest in SSI and lowest in MediPASS. These rates are higher than last year; this may be due to more accurate

identification of those with diabetes, improved testing practices, or better coding of office procedures. These rates approach an acceptable level, though all diabetics should be tested, a target rate of 90% should be set for the future.

Table 17 Proportion of adults with diabetes that had a Hemoglobin A1c test, SFY 2009

Age		MediPASS	FFS	SSI
18-75 years	Number	588	292	2041
	%	73%	78%	84%

APPENDIX A: SUMMARY OF OUTCOMES BY MEDICAID ELIGIBILITY PROGRAM, SFY 2009

Measure	MediPASS	FFS	SSI	Performance Target
Well-child visits in the first 15 months of life at the recommended time				
0 visits	13.0%	9%	17%	7.5%
1 visit	8%	6%	9%	4.5%
2 visits	7%	7%	11%	5.0%
3 visits	9%	9%	16%	8.0%
4 visits	13%	15%	19%	13.0%
5 visits	18%	21%	19%	20.0%
6 or more visits	32%	33%	10%	42.0%
Well-child visits in the first 15 months of life regardless of timing				
0 visits	10%	7%	16%	
1 visit	8%	5%	3%	
2 visits	7%	6%	9%	
3 visits	6%	7%	11%	
4 visits	9%	9%	16%	
5 visits	12%	15%	11%	
6 or more visits	49%	50%	34%	
Well-child visits in the third, fourth, fifth and sixth year of life				
Visit in the 3 rd year of life	61%	63%	53%	75.0%
Visit in the 4 th year of life	68%	70%	58%	75.0%
Visit in the 5 th year of life	68%	68%	65%	75.0%
Visit in the 6 th year of life	45%	40%	48%	65.0%
Visit in 3 rd -6 th years of life	61%	61%	56%	68.0%
Annual dental visit				
2-3 years old	32%	33%	28%	35.0%
4-6 years old	60%	55%	49%	65.0%
7-10 years old	63%	55%	52%	65.0%
11-14 years old	60%	52%	49%	60.0%
15-18 years old	52%	47%	41%	60.0%
19-21 years old	41%	38%	36%	45.0%
Children's and adolescents' access to primary care practitioners				
12-24 months old	97%	97%	95%	99.0%
2-6 years old	85%	84%	88%	95.0%
7-11 years old	83%	84%	89%	95.0%
12-19 years old	84%	84%	84%	95.0%
Combined	86%	85%	87%	95.0%

Use of appropriate medications for people with asthma				
5–11 years old	88%	84%	77%	75.0%
12–50 years old	75%	72%	74%	75.0%
Combined	81%	77%	74%	75.0%
Adult’s access to preventive/ambulatory health services				
20–44 years old	92%	92%	64%	90.0%
45–64 years old	89%	85%	64%	90.0%
Prenatal and postpartum care				
Prenatal care	71%	63%		75.0%
Postpartum care	39%	42%		75.0%
Comprehensive diabetes care				
Hemoglobin A1c	73%	78%	84%	75.0%

APPENDIX B: SUMMARY OF OUTCOMES BY MEDICAID ELIGIBILITY PROGRAM, SFY 2008

Measure	MediPASS	FFS	SSI	Performance Target
Well-child visits in the first 15 months of life				
0 visits	13.9%	8.9%	19.1%	7.5%
1 visit	6.7%	3.7%	12.4%	4.5%
2 visits	5.9%	4.8%	11.9%	5.0%
3 visits	7.8%	7.7%	10.8%	8.0%
4 visits	11.6%	12.7%	17.5%	13.0%
5 visits	16.6%	18.4%	15.5%	20.0%
6 or more visits	37.6%	43.8%	12.9%	42.0%
Well-child visits in the third, fourth, fifth and sixth year of life				
Visit in the 3 rd year of life	71.4%	70.1%	68.6%	75.0%
Visit in the 4 th year of life	78.3%	74.3%	73.0%	75.0%
Visit in the 5 th year of life	75.2%	70.5%	68.5%	75.0%
Visit in the 6 th year of life	52.4%	46.7%	55.4%	65.0%
Visit in 3 rd -6 th years of life	69.6%	65.9%	65.3%	68.0%
Annual dental visit				
2–3 years old	29.7%	29.6%	25.6%	35.0%
4–6 years old	57.9%	50.0%	47.0%	65.0%
7–10 years old	59.6%	53.0%	49.0%	65.0%
11–14 years old	57.2%	51.0%	45.5%	60.0%
15–18 years old	51.0%	45.9%	37.3%	60.0%
19-21 years old	42.4%	40.1%	36.1%	45.0%
Children’s and adolescents’ access to primary care practitioners				
12–24 months old	86.5%	91.9%	90.6%	99.0%
2–6 years old	78.4%	80.4%	85.0%	95.0%
7–11 years old	80.8%	82.4%	86.5%	95.0%
12–19 years old	46.5%	79.5%	78.6%	95.0%
Combined	79.4%	82.0%	82.3%	95.0%
Use of appropriate medications for people with asthma				
5–9 years old	93.3%	92.7%	89.7%	75.0%
10–17 years old	86.7%	83.6%	86.9%	75.0%
18–56 years old	80.9%	78.6%	78.8%	75.0%
Combined	87.2%	85.0%	83.0%	75.0%
Adult’s access to preventive/ambulatory health services				
20–44 years old	82.9%	82.7%	54.3%	90.0%
45–64 years old	80.3%	74.6%	57.0%	90.0%



Prenatal and postpartum care

Prenatal care	68.1%	61.7%	-	75.0%
Postpartum care	35.7%	34.8%	-	75.0%

Comprehensive diabetes care

Hemoglobin A1c	36.2%	45.9%	43.4%	75.0%
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APPENDIX C: SUMMARY OF OUTCOMES BY MANAGED CARE PLAN, SFY 2007

Measure	Coventry	MediPASS	FFS	Performance Target
Well-child visits in the first 15 months of life				
0 visits	9.3%	9.9%	8.4%	7.5%
1 visit	6.3%	5.2%	5.0%	4.5%
2 visits	7.4%	5.9%	6.2%	5.0%
3 visits	12.1%	8.8%	9.0%	8.0%
4 visits	14.2%	12.6%	14.1%	13.0%
5 visits	17.9%	20.5%	19.4%	20.0%
6 or more visits	33.7%	37.0%	37.1%	42.0%
Well-child visits in the third, fourth, fifth and sixth year of life				
Visit in the 3 rd year of life	58.5%	72.9%	71.3%	75.0%
Visit in the 4 th year of life	73.8%	78.0%	76.7%	75.0%
Visit in the 5 th year of life	65.6%	78.1%	77.7%	75.0%
Visit in the 6 th year of life	47.0%	55.0%	55.7%	65.0%
Visit in 3 rd -6 th years of life	60.7%	71.2%	70.5%	68.0%
Annual dental visit				
2–3 years old	16.6%	29.6%	27.1%	35.0%
4–6 years old	48.9%	58.2%	51.0%	65.0%
7–10 years old	47.5%	61.0%	55.1%	65.0%
11–14 years old	45.7%	58.0%	52.9%	60.0%
15–18 years old	46.0%	50.2%	47.3%	60.0%
19-21 years old	38.8%	42.8%	42.9%	45.0%
Children’s and adolescents’ access to primary care practitioners				
12–24 months old	99.1%	99.4%	98.9%	99.0%
2–6 years old	93.0%	94.6%	92.5%	95.0%
7–11 years old	92.2%	93.2%	90.9%	95.0%
12–19 years old	91.3%	91.2%	88.6%	95.0%
Combined	93.1%	93.8%	91.6%	95.0%
Use of appropriate medications for people with asthma				
5–9 years old	66.7%	65.3%	63.2%	75.0%
10–17 years old	50.0%	61.3%	62.5%	75.0%
18–56 years old	14.3%	53.1%	53.2%	75.0%
Combined	45.0%	60.4%	59.5%	75.0%
Adult’s access to preventive/ambulatory health services				
20–44 years old	94.0%	88.8%	87.0%	90.0%
45–64 years old	78.9%	86.1%	77.4%	90.0%

Prenatal and postpartum care

Prenatal care	76.5%	69.9%	66.2%	75.0%
Postpartum care	55.4%	32.7%	35.9%	75.0%

Comprehensive diabetes care

Hemoglobin A1c	57.9%	72.7%	60.9%	75.0%
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APPENDIX D: SUMMARY OF OUTCOMES BY MANAGED CARE PLAN, SFY 2006

Measure	Coventry	MediPASS	FFS
Well-child visits in the first 15 months of life			
0 visits	1.7%	10.0%	9.4%
1 visit	3.7%	6.5%	5.5%
2 visits	9.4%	5.5%	6.1%
3 visits	12.7%	7.7%	8.8%
4 visits	13.7%	12.5%	13.9%
5 visits	21.7%	18.7%	20.3%
6 or more visits	37.1%	39.0%	36.1%
Well-child visits in the third, fourth, fifth and sixth year of life			
Visit in the 3 rd year of life	48.6%	65.3%	63.3%
Visit in the 4 th year of life	55.6%	75.4%	74.1%
Visit in the 5 th year of life	53.8%	77.6%	74.8%
Visit in the 6 th year of life	35.6%	58.2%	55.6%
Visit in 3 rd -6 th years of life	48.3%	69.3%	67.0%
Annual dental visit (new categories)			
2–3 years old	15.5%	24.2%	23.9%
4–6 years old	46.3%	55.6%	51.2%
7–10 years old	50.8%	59.2%	53.5%
11–14 years old	46.4%	55.5%	49.7%
15–18 years old	46.0%	48.7%	45.2%
19–21 years old	40.4%	39.9%	42.7%
Children’s and adolescents’ access to primary care practitioners			
12–24 months old	97.5%	81.2%	84.5%
2–6 years old	83.9%	67.0%	64.3%
7–11 years old	87.4%	78.4%	79.5%
12–19 years old	89.8%	77.5%	79.0%
Combined	87.8%	73.7%	73.4%
Use of appropriate medications for people with asthma			
5–9 years old	83.3%	84.7%	78.3%
10–17 years old	63.6%	84.6%	80.9%
18–56 years old	61.1%	80.9%	75.8%
Combined	68.3%	83.5%	78.3%
Adult’s access to preventive/ambulatory health services			
20–44 years old	87.3%	85.0%	83.9%
45–64 years old	88.4%	84.6%	76.4%

Prenatal and postpartum care

Prenatal care	67.2%	70.4%	65.0%
Postpartum care	42.4%	36.1%	46.8%

Comprehensive diabetes care

Hemoglobin A1c	57.5%	70.3%	61.9%
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N/A-No rate provided in NCQA audited means, percentiles and ratios

**APPENDIX E: SUMMARY OF OUTCOMES BY MANAGED CARE PLAN,
SFY 2005**

Measure	Coventry	MediPASS	FFS	IHS to MediPASS
Well-child visits in the first 15 months of life				
0 visits	2.1%	11.9%	8.1%	1.9%
1 visit	3.8%	6.4%	5.0%	3.7%
2 visits	4.3%	5.8%	6.7%	4.8%
3 visits	9.0%	7.3%	8.3%	10.5%
4 visits	14.5%	11.3%	12.0%	13.3%
5 visits	21.8%	15.0%	15.2%	14.2%
6 or more visits	44.4%	42.2%	44.7%	51.5%
Well-child visits in the third, fourth, fifth and sixth year of life				
Visit in the 3 rd year of life	73.2%	76.6%	74.2%	76.2%
Visit in the 4 th year of life	79.0%	80.1%	78.7%	79.9%
Visit in the 5 th year of life	79.7%	81.2%	77.3%	80.0%
Visit in the 6 th year of life	31.2%	63.5%	55.5%	54.5%
Visit in 3 rd -6 th years of life	66.9%	74.8%	71.6%	73.1%
Annual dental visit (new categories)				
2–3 years old	17.8%	26.6%	26.8%	28.9%
4–6 years old	55.2%	57.4%	52.7%	56.9%
7–10 years old	56.9%	61.1%	54.3%	58.8%
11–14 years old	50.9%	56.9%	52.0%	54.2%
15–18 years old	49.4%	49.4%	47.1%	45.0%
19-21 years old	41.4%	43.5%	41.0%	38.8%
Annual dental visit (old categories)				
1–3 years old	11.8%	19.0%	19.5%	20.3%
4–6 years old	55.2%	57.4%	52.7%	56.9%
7–11 years old	55.9%	60.8%	54.4%	58.7%
12–15 years old	50.2%	54.6%	51.3%	51.0%
16–18 years old	49.8%	49.3%	45.1%	45.0%
Children’s and adolescents’ access to primary care practitioners				
12–24 months old	99.6%	99.2%	97.2%	99.2%
2–6 years old	86.8%	93.9%	90.4%	92.6%
7–11 years old	88.3%	91.2%	89.4%	91.7%
12–19 years old	86.9%	91.9%	89.9%	91.4%
Combined	89.2%	93.3%	90.7%	93.1%

Use of appropriate medications for people with asthma					
	5–9 years old	57.1%	92.4%	95.7%	76.9%
	10–17 years old	100.0%	95.1%	90.0%	78.4%
	18–56 years old	80.0%	85.2%	81.0%	84.8%
	Combined	77.3%	91.4%	88.1%	79.5%
Adult’s access to preventive/ambulatory health services					
	20–44 years old	87.8%	85.1%	84.5%	84.3%
	45–64 years old	88.2%	85.3%	62.3%	84.9%
Prenatal and postpartum care					
	Prenatal care	43.1%	65.8%	58.1%	55.3%
	Postpartum care	52.7%	35.3%	36.1%	23.5%
Comprehensive diabetes care					
	Hemoglobin A1c	54.3%	33.9%	28.5%	40.6%

APPENDIX F: SUMMARY OF OUTCOMES BY MANAGED CARE PLAN, SFY 2004

Measure	John Deere	Coventry	Iowa Health Solutions
Well-child visits in the first 15 months of life			
0 visits	3.1%	0.0%	1.0%
1 visit	8.5%	0.0%	2.6%
2 visits	6.3%	4.3%	7.1%
3 visits	11.6%	14.9%	13.6%
4 visits	15.9%	19.1%	23.3%
5 visits	19.8%	38.3%	26.4%
6 or more visits	34.8%	23.4%	26.0%
Well-child visits in the third, fourth, fifth and sixth year of life			
Visit in the 3 rd year of life	53.2%	72.5%	64.3%
Visit in the 4 th year of life	65.4%	80.2%	70.3%
Visit in the 5 th year of life	64.6%	82.8%	63.8%
Visit in the 6 th year of life	38.2%	20.1%	44.3%
Visit in 3 rd -6 th years of life	56.2%	75.3%	61.3%
Annual dental visit			
1–3 years old	28.0%	11.7%	21.2%
4–6 years old	64.4%	55.4%	59.4%
7–11 years old	62.3%	51.1%	59.6%
12–15 years old	53.9%	52.4%	52.0%
16–18 years old	46.4%	54.8%	45.1%
Children’s and adolescents’ access to primary care practitioners			
12–24 months old	98.1%	100.0%	97.6%
2–6 years old	87.1%	85.7%	88.7%
7–11 years old	86.0%	88.8%	86.9%
12–19 years old	89.7%	88.0%	84.6%
Use of appropriate medications for people with asthma			
5–9 years old	40.6%	50.0%	63.3%
10–17 years old	52.9%	75.0%	58.0%
18–56 years old	50.0%	20.0%	55.3%
Combined	47.8%	38.9%	57.8%
Adult’s access to preventive/ambulatory health services			
20–44 years old	85.1%	88.8%	88.7%
45–64 years old	78.8%	81.3%	86.5%

Prenatal and postpartum care

Prenatal care	63.0%	55.5%	63.0%
Postpartum care	—	—	—

Comprehensive diabetes care

Hemoglobin A1c	84.8%	90.0%	20.0%
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APPENDIX G: SUMMARY OF OUTCOMES BY MANAGED CARE PLAN, SFY 2003

Measure	John Deere	Coventry	Iowa Health Solutions	M
Well-child visits in the first 15 months of life				
0 visits	1.5%	0.0%	0.2%	
1 visit	8.7%	1.1%	4.0%	
2 visits	9.0%	2.2%	5.2%	
3 visits	10.0%	9.7%	8.9%	
4 visits	12.6%	29.0%	12.6%	
5 visits	15.9%	24.7%	19.1%	
6 or more visits	42.2%	33.3%	50.1%	
Well-child visits in the third, fourth, fifth and sixth year of life				
Visit in the 3 rd year of life	56.1%	89.4%	73.4%	
Visit in the 4 th year of life	62.7%	85.3%	78.7%	
Visit in the 5 th year of life	58.8%	73.6%	75.9%	
Visit in the 6 th year of life	37.8%	55.7%	43.3%	
Visit in the 3 rd -6 th years of life	53.9%	76.7%	68.9%	
Annual dental visit				
1–3 years old	21.9%	18.0%	21.3%	
4–6 years old	62.7%	54.3%	57.2%	
7–11 years old	62.9%	50.9%	57.9%	
12–15 years old	56.2%	46.5%	51.3%	
16–18 years old	47.5%	47.0%	45.8%	
Children’s and adolescents’ access to primary care practitioners				
12–24 months old	71.9%	91.0%	90.0%	
2–6 years old	59.2%	69.7%	73.2%	
7–11 years old	75.2%	72.7%	76.9%	
12–19 years old	72.3%	77.1%	74.5%	

Measure	John Deere	Coventry	Iowa Health Solutions	Me
Use of appropriate medications for people with asthma				
5–9 years old	55.6%	33.3%	55.8%	
10–17 years old	51.5%	25.0%	62.7%	
18–56 years old	55.4%	42.9%	40.5%	
Combined	54.2%	33.3%	54.7%	
Adult’s access to preventive/ambulatory health services				
20–44 years old	69.5%	88.8%	87.2%	
45–64 years old	63.6%	70.6%	87.7%	
Prenatal and postpartum care				
Prenatal care	60.4%	53.5%	63.5%	
Postpartum care	—	—	—	
Comprehensive diabetes care				
Hemoglobin A1c	51.3%	46.2%	48.2%	

APPENDIX H: TECHNICAL SPECIFICATIONS FOR OUTCOME MEASURES

Well-child visits in the first 15 months of life

Denominator: Children who turn 15 months of age during the measurement year and are continuously eligible for the period from 31 days of age through 15 months of age with no more than a 1-month gap. Whether children are 31 days of age is calculated by adding 31 days to the date of birth and whether they are 15 months is calculated as the date of the first birthday plus 90 days.

Numerator: Children within the denominator who had a well-child visit defined by any one of the procedure codes: 99381, 99382, 99391, 99392, 99432 or one of the diagnosis codes: V20.2, V70.0, V70.3, V70.5, V70.6, V70.8, V70.9.

Rates: Seven rates are computed for this measure. These rates encompass the proportion of children that had 0, 1, 2, 3, 4, 5, or 6 or more well visits during the 15-month period.

Well-child visits in the third, fourth, fifth, and sixth year of life

Denominator: Children who turn three through six years of age during the measurement year and are eligible for at least 11 months during the measurement year.

Numerator: Children within the denominator who had a well-child visit defined by any one of the procedure codes: 99382, 99383, 99392, 99393 or one of the diagnosis codes: V20.2, V70.0, V70.3, V70.5, V70.6, V70.8, V70.9.

Rates: Five rates are calculated, one for each year of age and one combined.

Annual dental visit

Denominator: Children 2–21 years of age who are eligible for at least 11 months during the measurement year.

Numerator: Children within the denominator who had a visit with a dental provider during the measurement year.

Rates: The rate is calculated for six age groups: 2–3 years old, 4–6 years old, 7–10 years old, 11–14 years old, 15–18 years old, and 19–21 years old.

Children’s and adolescent’s access to primary care practitioners

Denominator: Children who turn 12 months–6 years of age during the measurement year and who are eligible for at least 11 months during the measurement year *and* children 7 years of age to adolescents 19 years of age who are eligible for at least 11

months during the measurement year and 11 months during the year prior to the measurement year.

Numerator: Children 12 months–6 years of age who have had a primary care visit during the measurement year *and* children 7 years of age through adolescents 19 years of age who have had a primary care visit during the measurement year or the year prior to the measurement year. A primary care visit was defined as any visit with one of the procedure codes: 99201-99205, 99211-99215, 99241-99245, 99341-99350, 99401-99404, 99411, 99412, 99420, 99429, 99381-99385 or 99391-99395 or one of the diagnosis codes: V20.2, V70.0, V70.3, V70.5, V70.6, V70.8, V70.9.

Rates: This rate is calculated for four different age groups: 12–24 months, 25 months–6 years, 7–11 years, and 12–19 years.

Use of appropriate medications for people with asthma

Denominator: People ages 5–56 years old who are eligible for at least 11 months during the measurement year and 11 months during the year prior to the measurement year with persistent asthma. People are considered to have persistent asthma if they meet one of the four protocols listed below during both the year *prior* to the measurement year and the measurement year.

At least one emergency visit defined by one of the procedure codes: 99281-99285 or one of the revenue codes: 450-459, 981 and with a principal diagnosis of asthma (ICD-9-CM 493).

At least one hospital discharge defined by one of the procedure codes: 99221-99223, 99231-99233, 99238, 99239, 99251-99255, 99261-99263, or 99291 or one of the revenue codes: 100-149, 119, 120-124, 129, 150-154, 159, 160-169, 200-229, 720-729, or 987 and with a principal diagnosis of asthma (ICD-9-CM 493).

Have at least 4 outpatient/physician visits defined by one of the procedure codes: 99201-99205, 99211-99215, 99217-99220, 99241-99245, 99271-99275, 99341-99345, 99347-99350, 99382-99386, 99392-99396, 99401-99404, 99411, 99412, 99420, 99429 or 99499 or one of the revenue codes: 510-519, 520-523, 529, 570-599, 770-779, 982 or 983 and with any diagnosis of asthma (ICD-9-CM 493).

Have at least four asthma medicine dispensing events. A list of asthma medications is found on the NCQA website.

Numerator: The numerator consists of those people in the denominator who had at least one medication prescribing event for a long-term control medication during the measurement year. A list of these medications is found on the NCQA website.

Rates: This rate is calculated for four different age groups: 5–9 years olds, 10–17 year olds, 18–56 year olds, and a combined rate containing everyone 5–56 years old.

Adult access to preventive/ambulatory health services

Denominator: Adults 20-64 years of age who are eligible for at least 11 months in the measurement year.

Numerator: Adults within the denominator who had a preventive/ambulatory visit within the measurement year. Preventive/ambulatory visits are defined as a visit with one of the procedure codes: 99210-99205, 99211-99215, 99241-99245, 99341-99350, 99301-99303, 99311-99313, 99321-99323, 99331-99333, 99385-99387, 99395-99397, 99401-99404, 99411-99412, 99420, 99429, 99499, 92002, 92004, 92012, 92014 or one of the revenue codes: 770, 771, 779, 510-529, 982, 983.

Rates: This rate is calculated for two age groups: 20–44 year olds and 45–64 year olds.

Prenatal and postpartum care

Denominator: Women with a live birth during the year ending 56 days before the end of the measurement year and who were eligible for the period 43 days prior to delivery through 56 days after delivery.

Live births were defined by one of the diagnosis codes: 72.0-73.99, 74.0-74.2, 74.4, 74.99, 640.01-640.91, 641.01-641.91, 642.01-642.91, 643.01-643.91, 644.21, 645.11, 645.21, 646.01-646.91, 646.12, 646.22, 646.42, 646.52, 646.62, 646.82, 647.01-647.92, 648.01-648.92, 651.01-652.91, 653.01-653.91, 654.01-654.91, 654.02, 654.12, 654.32, 654.42, 654.52, 654.62, 654.72, 654.82, 654.92, 655.01-655.91, 656.01, 656.11, 656.21, 656.31, 656.51, 656.61, 656.71, 656.81, 656.91, 657.01, 658.01-658.91, 659.01-659.91, 660.01-660.91, 661.01-661.91, 662.01-662.91, 663.01-663.91, 664.01-664.91, 665.01, 665.11, 665.22, 665.31, 665.41, 665.51, 665.61, 665.71, 665.72, 665.81, 665.82, 665.91, 665.92, 666.02-666.92, 667.02-667.92, 668.01-668.91, 668.02-668.92, 669.01, 669.02, 669.11, 669.12, 669.21, 669.22, 669.32, 669.41, 669.42, 669.51, 669.61, 669.71, 669.81, 669.82, 669.91, 669.92, 670.02, 671.01, 671.02, 671.11, 671.12, 671.21, 671.22, 671.31, 671.42, 671.51, 671.52, 671.81, 671.82, 671.92, 671.92, 672.02, 673.01-673.91, 673.02-673.92, 674.01, 674.02-674.92, 675.01-675.91, 675.02-675.92, 676.01-676.91, 676.02-676.92 or one of the procedure codes 59400, 59409, 59410, 59510, 59514, 59515, 59610, 59612, 59614, 59618, 59620, 59622 or one of the DRG codes: 370-375. Any claim with one of the diagnosis codes 630-637, 656.4, 768.0, 768.1, V27.1, V27.4, or V27.7 is considered *not* to represent a live birth.

Numerator: Women within the denominator who had a prenatal care visit in the first trimester or within 42 days of becoming eligible. See HEDIS 2004, Volume 2, Technical Specifications for greater detail. A prenatal visit is defined by one of the procedure codes: 59400, 59510, 59610, 59618, 59425, 59426 with a date indicating first prenatal visit or one of the procedure codes: 99201-99205, 99211-99215 or revenue code 514 in combination with one of the procedure codes or procedure code combinations: 76801, 76802, 76805, 76811, 76812, 76815, 76816, 76817, 76818, 80055, 80090, 86762 and 86900 or 86762 and 86901 or in combination with one of the diagnosis codes: 640.x3, 641.x3, 642.x3, 643.x3, 644.x3, 645.x3, 646.x3, 647.x3, 648.x3, 651.x3, 652.x3, 653.x3, 654.x3, 655.x3, 656.x3, 657.x3, 658.x3, 659.x3, V22-V23. Postpartum care was defined by one of the procedure codes: 57170, 58300, 59400, 59410, 59430, 59510, 59515, 59610, 59614, 59618, 59622, 88141-88145,

88147, 88148, 88150-88155, 88164-88167, 88174, 88175 or one of the diagnosis codes: 91.46, V24.1, V24.2, V25.1, V72.3, V76.2 or revenue code 923.

Rates: Two rates are calculated, one for prenatal care and one for postpartum care.

Comprehensive diabetes care

Denominator: Adults with diabetes 18–64 years of age who were eligible for at least 11 months in the measurement year *and* who met one of the following protocols during the measurement year or the year prior to the measurement year.

At least one emergency visit defined by one of the procedure codes: 99281-99288 or one of the revenue codes: 450-459, 981 and with a principal diagnosis of diabetes (ICD-9-CM 250.00-250.99, 357.2, 362.0, 366.41, 648.0 or DRG 205 or 294) or one hospital discharge defined by one of the procedure codes: 99221-99223, 99231-99233, 99238, 99239, 99251-99255, 99261-99263, or 99291 or one of the revenue codes: 100-149, 119, 120-124, 129, 150-154, 159, 160-169, 200-229, 720-729, or 987 or DRG 462 and with a principal diagnosis of diabetes (ICD-9-CM 250.00-250.99, 357.2, 362.0, 366.41, 648.0 or DRG 205 or 294).

At least 2 outpatient/physician/non-acute inpatient visits defined by one of the procedure codes: 92002-92014, 99201-99205, 99211-99215, 99217-99220, 99241-99245, 99271-99275, 99289, 99290, 99301-99303, 99311-99313, 99321-99323, 99331-99333, 99341-99355, 99384-99387, 99394-99397, 99410-99404, 99411, 99412, 99420, 99429, 99499 or one of the revenue codes: 118, 128, 138, 148, 158, 190-199, 510-529, 550-559, 570-599, 660-669, 770-779, 820-859, 880-889, 982 or 983 and with a diagnosis of diabetes (ICD-9-CM 250.00-250.99, 357.2, 362.0, 366.41, 648.0).

Have at least one diabetes medication dispensing event. A list of insulin and oral hypoglycemic medications is found on the NCQA website.

Numerator: Adults within the denominator who had a hemoglobin A1c test (procedure code 83036) during the measurement year.

Rates: One rate, including all adults, is calculated for this measure.