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Outcomes of care for Iowa Medicaid managed care enrollees. State fiscal year 2006. Final report to the Iowa Department of Human Services

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Introduction

The current movement to Pay-for-Performance by insurers continues to increase the importance of using valid outcome measures and understanding the results they generate. The Iowa Medicaid program has been involved in utilizing HEDIS outcome measures for over 10 years to improve quality of care. Since 2003, the outcome measures utilized have remained constant and include: well-child visits in the first 15 months of life; well child-visits in the 3rd, 4th, 5th, and 6th years of life; children and adolescents' access to primary care providers; annual dental visit; use of appropriate medications for people with asthma; adults' access to preventive/ambulatory health services; hemoglobin A1c testing; and prenatal and postpartum care.

Outcome measures are computed with regard to the managed care eligible Medicaid population. Most measures require that an enrollee be eligible for at least 11 months of the year for which the measure is being calculated. For well-child visits in the first 15 months of life children must be enrolled for 14 of the first 15 months of life. For prenatal and postpartum care various enrollment periods are utilized to determine the rates.

By coupling the HEDIS outcome measures with the CAHPS survey results, we are able to paint a reliable picture about the care that is received through the Medicaid program. In addition, we are able to compare our rates at the program level with rates from across the nation for other Medicaid programs and a variety of commercial insurers and are able to compare our rates over time.

Eligibility

Within the managed care eligible Medicaid program we have broken the enrollees into three groups: those enrolled in an HMO (Coventry), those in MediPASS, and those in the fee-for-service (FFS) or traditional Medicaid program. For most outcomes, enrollees had to be eligible for at least 11 months during the state fiscal year (SFY) 2006. Of those eligible for at least 11 months during SFY 2006: 4,205 were in an HMO; 109,075 were in MediPASS; and 38,504 were in FFS. A comparison of demographics for this population as compared to the state are shown in Table 1, while the age and gender breakdowns are shown in Table 2.

The population of Medicaid eligible people enrolled in a TANF-related program for at least 11 months during SFY 2006 are younger than the state population. These enrollees are also more likely to be female and non-caucasian. Based on the demographics of this group we know that they will have a more difficult time accessing medical care, once again highlighting the importance of calculating and tracking relevant outcome measures.

The number of people within the program for at least 11 months rose by almost 20% (more than 24,000), from SFY 2005 to SFY 2006. This increase was distributed across all age and gender groups, however the largest increase was for males 19 to 21 years of age with an increase of 29.3% (258 people). However, the most people were added in the category of girls and boys 7–12 years of age.

Table 1: Comparisons of demographics for Medicaid enrollees who were eligible for at least 11 months in SFY 2006 and the state population as estimated by the census

Characteristic	Medicaid Enrollees	State Population
Age group		
0–2 years	14.2%	3.7%
3–6 years	21.3%	4.7%
7–12 years	24.5%	7.4%
13–18 years	18.4%	8.1%
19–21 years	3.7%	4.4%
22–44 years	15.9%	31.2%
45–64 years	1.7%	25.6%
65 years and over	0.3%	14.7%
Gender		
Male	43.8%	49.2%
Female	56.2%	50.8%
Race		
White	61.4%	91.5%
African-American	9.0%	2.3%
Hispanic	5.1%	3.7%
Other including unknown	24.5%	2.5%

Table 2: Medicaid enrollees eligible for at least 11 months by age and gender SFY 2006

Age group		Female	Male	Total
0–2 years	Number	10,534	10,981	**21,515**
	Percent	49.0%	51.0%	**100.0%**
3–6 years	Number	15,909	16,460	**32,369**
	Percent	49.1%	50.9%	**100.0%**
7–12 years	Number	18,349	18,817	**37,166**
	Percent	49.4%	50.6%	**100.0%**
13–18 years	Number	14,294	13,708	**28,002**
	Percent	51.0%	49.0%	**100.0%**
19–21 years	Number	4,436	1,138	**5,574**
	Percent	79.6%	20.4%	**100.0%**
22–44 years	Number	19,746	4,402	**24,148**
	Percent	81.8%	18.2%	**100.0%**
45–64 years	Number	1,650	942	**2,592**
	Percent	63.7%	36.3%	**100.0%**
over 65 years	Number	344	74	**418**
	Percent	82.3%	17.7%	**100.0%**
Total	**Number**	**85,262**	**66,522**	**151,784**
	Percent	**56.2%**	**43.8%**	**100.0%**

Outcome measures

Well-child visits in the first 15 months of life

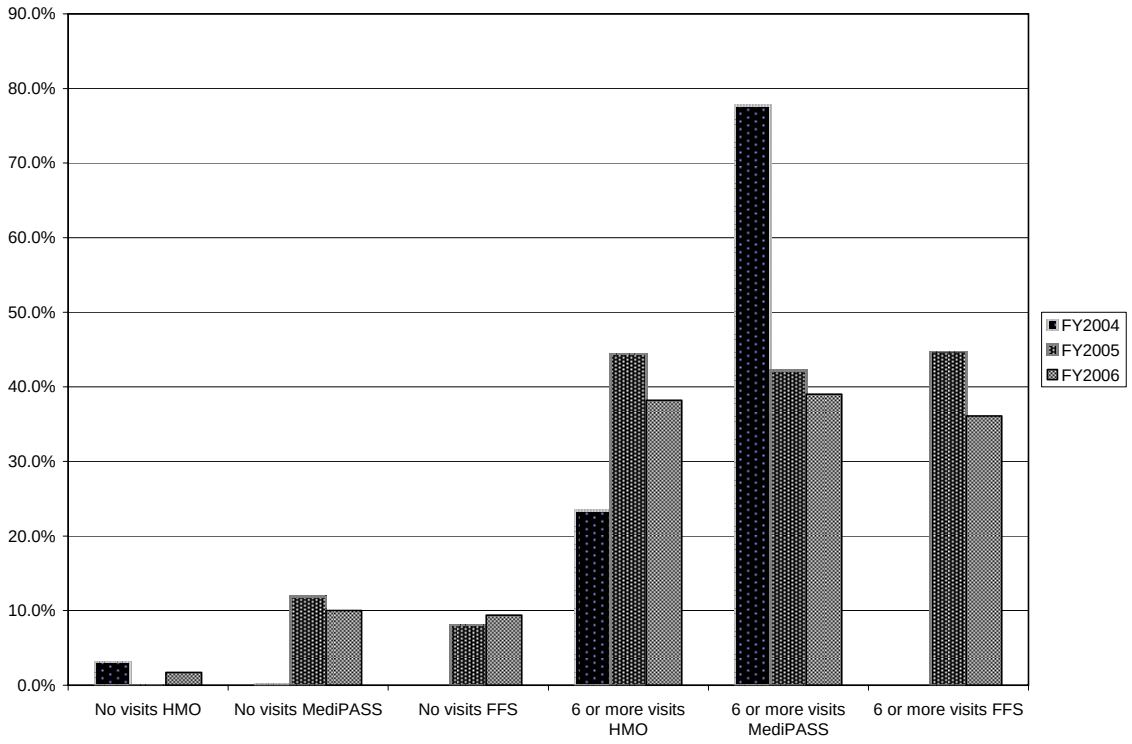
In accordance with the American Academy of Pediatrics recommendations, the Iowa Department of Public Health (IDPH) Early Periodic Screening, Diagnosis and Treatment (EPSDT) schedule indicates that children should have 8 visits during the first 15 months of life. The EPSDT schedule recommends visits at 2-3 days and 1, 2, 4, 6, 9, 12, and 15 months. There are seven rates computed for this HEDIS measure, one rate for each visit number: no visits, 1 visit, 2 visits, 3 visits, 4 visits, 5 visits, and 6 or more visits. The denominator for these rates is the number of children who turned 15 months of age by June 30, 2006 and were eligible for at least 14 of the first 15 months of their life. The numerator is the number of children who had each number of visits from zero to six or more.

Figure 1 provides a comparison of the rates for zero visits and 6 or more visits for the three groups over the last 3 years (SFY 2004–SFY 2006). This figure indicates that though the proportion of children who had made no visits during the first 15 months of life has not changed dramatically for any of the groups, the proportion of children who received six or more visits has decreased. Though it is unclear why this may be happening, it seems to tell us that though children are getting in to see the doctor, they are not receiving as many visits as are recommended. This may result in a lack of anticipatory guidance for parents, reduce opportunities for development screening by the physician, and interrupted vaccination schedules.

Table 3: Number and proportion of children receiving from zero to six or more well-child visits in the first 15 months of life SFY 2006

Number of visits		FFS	MediPASS	HMO	Total
0 visits	Number	240	711	5	**956**
	Percent	9.4%	10.0%	1.7%	**9.6%**
1 visit	Number	141	464	11	**616**
	Percent	5.5%	6.5%	3.7%	**6.2%**
2 visits	Number	155	394	28	**577**
	Percent	6.1%	5.5%	9.4%	**5.8%**
3 visits	Number	224	546	38	**808**
	Percent	8.8%	7.7%	12.7%	**8.1%**
4 visits	Number	356	889	41	**1,286**
	Percent	13.9%	12.5%	13.7%	**12.9%**
5 visits	Number	518	1,330	65	**1,913**
	Percent	20.3%	18.7%	21.7%	**19.2%**
6 or more visits	Number	924	2,771	111	**3,806**
	Percent	36.1%	39.0%	37.1%	**38.2%**
Total	**Number**	**2,558**	**7,105**	**299**	**9,962**
	Percent	**100.0%**	**100.0%**	**100.0%**	**100.0%**

Figure 1: Comparison of proportion of children with zero visits and proportion of children with six or more visits for the three groups SFY 2004–SFY 2006



Performance target

The proportion of children with 6 or more well-child visits in the first 15 months of life is falling. Though it is difficult to say whether the decrease is a transient trend or here to stay, we do know that it is not increasing toward the previously set performance target. We have chosen to compare the Iowa rate to rates from NCQA's benchmarking data, Arkansas Medicaid and Michigan Medicaid. From the table we can see that the Iowa Medicaid rate for zero visits is comparable to the 90th percentile for NCQA, meaning that 90% of the HMOs reporting results for their Medicaid enrolled populations had rates lower than 10%. In addition, it is higher than either of the other two states. One performance target for this rate should be to reduce the proportion of children with zero well-child visits in the first 15 months of life by 2.1% to 7.5%. The proportion of Iowa children enrolled in Medicaid with six or more well-child visits is comparable to the rate in Arkansas, yet less than Michigan and NCQA. The Iowa rate of 38.2% is below the 25th percentile on the NCQA rates. Over 25% of Medicaid plans in HMOs that report to NCQA have a rate higher than 38%. The 90th percentile for NCQA is 68.6%. The performance target for this rate in Iowa should be to increase the rate by 3% or bring it up to 41%.

Table 4: Well-child visits in the first 15 months of life rate comparisons

Source	0 visits	6 or more visits
Iowa Medicaid (SFY 2006)	9.6%	38.2%
Arkansas Medicaid (SFY 2004)	5.7%	37.4%
Michigan Medicaid (2006)	2.1%	51.9%
NCQA 90% (2006)	10.0%	68.6%

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

The IDPH EPSDT schedule indicates that children from two to six years of age should have a well-child exam yearly. This outcome measure indicates the proportion of children ages three, four, five and six who have had at least one visit during SFY 2006. Past experience with this measure has shown that within these four ages groups children age five are the most likely to have a visit due to the immunization requirements to enter public school. Since most immunizations are given at the doctor's office, parents are more likely to bring a child in for a well-child exam at age five and just prior to school admission.

The denominators for these rates are the number of children who turned the given age (3, 4, 5, or 6) by June 30, 2006 and were eligible for at least 11 months during SFY 2006. The numerators for these rates are the number of children within each age group who had a well-child visit during SFY 2006. These rates are reflected in Table 5. As has been evident in the past, children have the highest rate of well-child visits in the fifth year of life due to the need for immunizations prior to school entry.

Table 5: Proportion of children with a well-child visit in the third, fourth, fifth and sixth years of life by program SFY 2006

Age		FFS	MediPASS	HMO	Total
3 years	Number	1,295	4,093	106	**5,494**
	Percent	63.3%	65.3%	48.6%	**64.3%**
4 years	Number	1,440	4,650	119	**6,209**
	Percent	74.1%	75.4%	55.6%	**74.6%**
5 years	Number	1,403	4,543	129	**6,075**
	Percent	74.8%	77.6%	53.8%	**76.2%**
6 years	Number	993	3,210	83	**4,286**
	Percent	55.6%	58.2%	35.6%	**56.9%**
Total	**Number**	**5,131**	**16,496**	**437**	**22,062**
	Percent	**67.0%**	**69.3%**	**48.3%**	**68.2%**

The well-child visit rates have remained relatively stable over the past four years (see Figure 2). The total rate for Iowa in SFY 2006 is above the 50th percentile for the NCQA data, however, the rate for the HMO enrollees is below the 10th percentile. Since the total rate for Coventry has been relatively high in the past, there may be a problem with the case finding protocol for this fiscal year. In the past, a child was counted as having a well-child visit if a diagnosis code of a well-child or well person visit was present on at least one claim/encounter. This year the claim or encounter also had to match a specific set of procedure codes. This protocol may have affected the encounters differently than the claims. In particular, since Coventry utilizes a community health center, we may be missing center-specific codes that indicate a well-child visit. Further investigation is warranted in the future to determine whether non-standard coding is being used, whether encounters are not being recorded and passed to the state, or whether children are not being seen.

Performance target

The performance targets for this outcome should be set at 75% for the third, fourth and fifth year of life and at 65% for the sixth year of life. The parents of children receiving screening exams may not understand the need for a more extensive well-child visit. In addition, providers may not be using a reminder system to enhance parents' ability to remember well-child visit schedules. Further investigation into the reasons that 30% of children are not recorded as having a well-child visit is needed.

Figure 2: Well-child visit rates for children in the third, fourth, fifth, and sixth years of life SFY 2003–2006

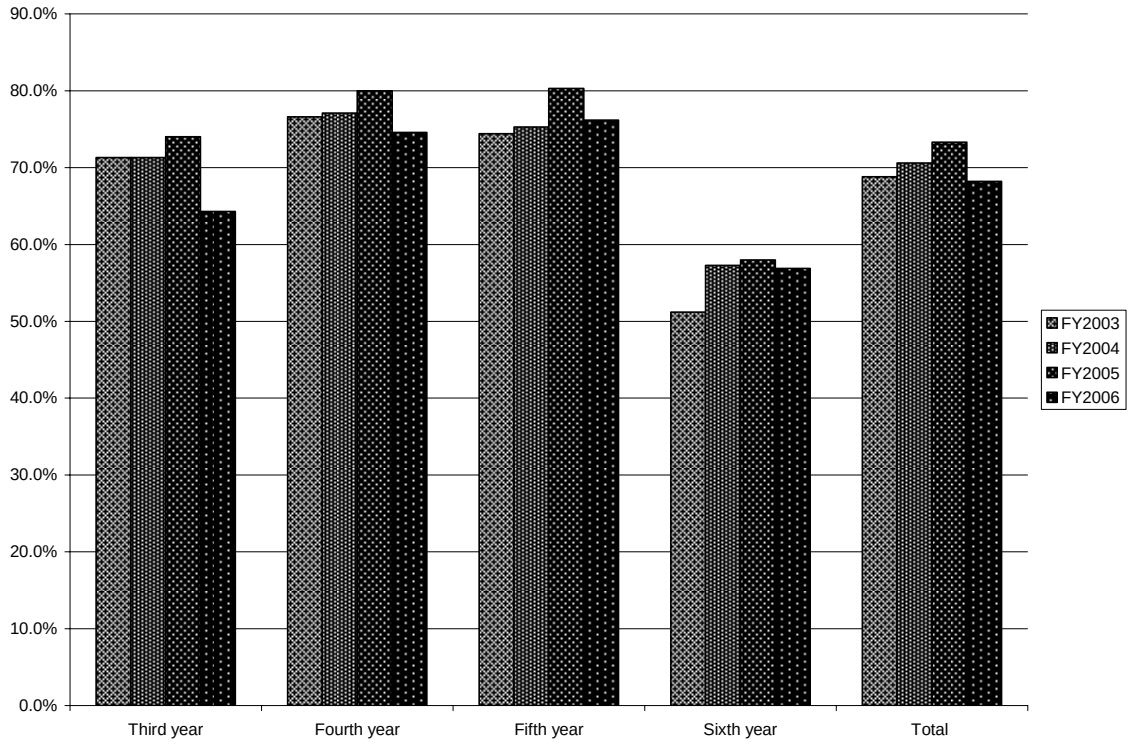


Table 6: Well-child visits in the third, fourth, fifth, and sixth years of life rate comparisons

Source	Had a well-child visit
Iowa Medicaid (SFY 2006)	68.2%
Arkansas Medicaid (SFY 2004)	42.2%
Michigan Medicaid (2006)	64.2%
NCQA 90% (2006)	77.5%

Annual dental visit

The American Dental Association recommends at least one dental visit per year. This HEDIS measure determines the proportion of children and adolescents that had a dental visit across six age categories. The age categories start with two to three years and end with 19 to 21 years. In general the rates for two to three years are low due to parents not knowing that they should take children in this early, parents' reticence to expose children to the dentist at early ages, and the difficulty parents have finding a dentist who will see very young children.

The denominators for these rates are the number of children who turned the given age by June 30, 2006 and were eligible for at least 11 months during SFY 2006. The numerators are comprised of the number of children in the denominator who had at least one dental visit during SFY 2006. As can be seen from Table 7, 40% to 50% of children and adolescents have seen a dentist in the past year, however, the proportion of children ages two and three having seen a dentist in the past year is less than 25%. These rates are at least two to three percentage points lower than last year. Though two years do not make a trend, these rates should be watched carefully over the next two years to determine whether there is a consistent drop over time which would indicate an access problem.

Table 7: Proportion of children with a dental visit by program SFY 2006

Age group		FFS	MediPASS	HMO
2–3 years	Number	993	3,166	78
	Percent	23.9%	24.2%	15.5%
4–6 years	Number	2,871	9,745	318
	Percent	51.2%	55.6%	46.3%
7–10 years	Number	3,280	11,313	366
	Percent	53.5%	59.5%	50.8%
11–14 years	Number	2,682	8,883	273
	Percent	49.7%	55.5%	46.4%
15–18 years	Number	1,930	6,088	205
	Percent	45.2%	48.7%	46.0%
19–21 years	Number	703	1,504	65
	Percent	42.7%	39.9%	40.4%

Performance target

The performance target for the annual dental visit remains unchanged because the rates fell slightly as compared to last year. When the rates are compared to the NCQA percentiles in Table 8, we see that children and adolescents in the MediPASS program had rates at or above the 50th percentile for NCQA. In addition, the rates for 19 to 21 year olds regardless of program were at or above the 75th percentile. The only group with a rate under the 50th percentile was children four to six years old in the HMO. NCQA does not report rates for children two to three years of age.

Table 8: NCQA Means, percentiles and rates, 2006
Annual dental visit

Age group	Mean	50th percentile	75th percentile	90th percentile
2–3 years	Not given	Not given	Not given	Not given
4–6 years	47.5%	49.3%	55.8%	63.6%
7–10 years	49.3%	50.0%	55.4%	63.2%
11–14 years	44.3%	45.0%	51.4%	57.7%
15–18 years	38.2%	36.7%	46.5%	50.8%
19–21 years	60.5%	31.6%	39.5%	43.6%

Children and adolescents' access to primary care practitioners

The concept of the medical home has become increasingly important in the health arena. As studies indicate that children with a medical home are more likely to receive care, emphasis continues to be placed upon access to a personal provider. Managed care organizations operate with the concept of a primary care practitioner, one practitioner who is designated as "your doctor or nurse". Within the MediPASS program each enrollee has a designated "gatekeeper", a physician who is responsible for approving emergency room visits for non-emergent care and coordinating care that can not be provided within the office, making access to the primary care practitioner critical.

The HEDIS measure "Children and adolescents' access to primary care practitioners" counts only visits with a designated primary care practitioner. For our purposes, we did not limit the visits to a primary care practitioner. This was done for two reasons. First, we do not have an internal directory of primary care practitioners for the fee-for-service program. Second, we are not confident that the identification of specialty is necessarily reliable or valid within the claims/encounter data. For many claims and encounters the provider number used indicates a clinic that may have a variety of specialists and primary care practitioners working within it. It is difficult at best to make a judgment regarding which practitioner was seen. Therefore, all visits to a practitioner are counted within this measure.

The denominator for these rates is the number of children who turned the indicated ages by June 30, 2006. The numerators include the number of children in the denominator who had a visit with a primary care practitioner during SFY 2006 for children 12 months to 6 years of

age and children in the denominator who had a visit with a primary care practitioner during SFY 2005 or SFY 2006 for children 7 to 20 years of age. Table 9 indicates the rates of access to practitioners for children in four age groups: 12 to 24 months; 25 months to 6 years; 7 to 11 years; and 12 to 19 years. All age groups across the three programs had relatively high access to practitioners. Though this would no doubt be lower had we only included primary care practitioners, we can still see that they do have access to health care. Figure 3 provides the same data in a visual format that allows us to see the patterns of care that emerge for these age groups. Rates are high during the early months when well-child visits are recommended multiple times per year. They dip after children enter school because there are no required visits for school attendance and parents may not be aware of the need for well-child care at this time. They rise again as children and adolescents become involved in sports or activities that require a physical for participation.

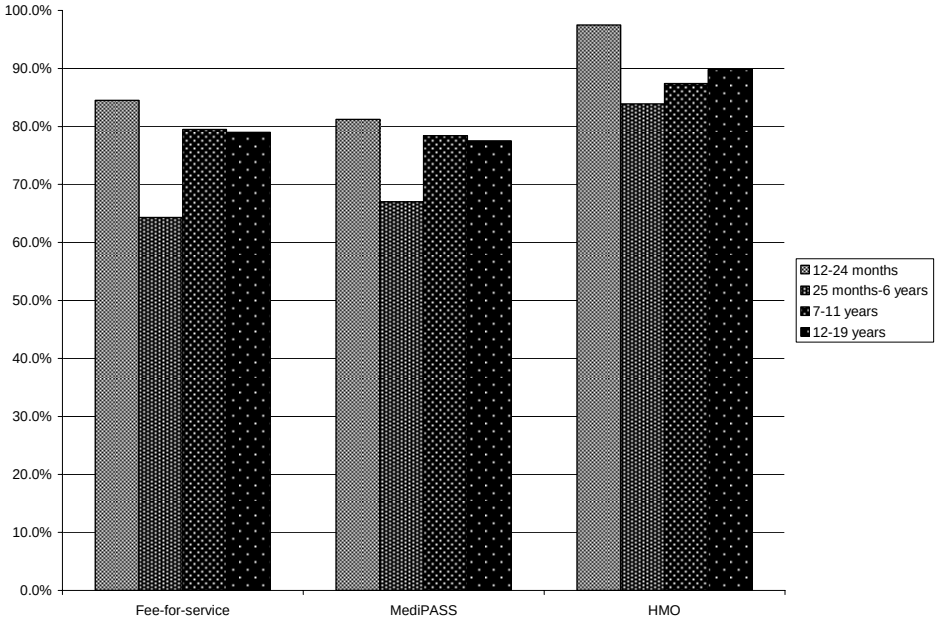
Performance target

The rates that we calculate for the Iowa Medicaid program may not be comparable to rates calculated with the HEDIS protocol for access to primary care practitioners. By necessity we are including visits that are not being made to the primary care practitioner, but to a specialist. Though we have compared this rate to the NCQA means and percentiles in the past, we do not feel comfortable that this should continue. Instead, performance targets are recommended with the goal of constantly improving access. Performance targets of 90% for 12 to 24 months, 75% for 25 months to 6 years, 85% for 7 to 11 years, and 90% for 12 to 19 years are recommended.

Table 9: Proportion of children with a visit to a practitioner by program SFY 2006

Age group		FFS	MediPASS	HMO
12–24 months	Number	2,367	6,754	313
	Percent	84.5%	81.2%	97.5%
25 months–6 years	Number	6,145	20,072	973
	Percent	64.3%	67.0%	83.9%
7–11 years	Number	3,466	12,207	661
	Percent	79.5%	78.4%	87.4%
12–19 years	Number	4,137	13,209	704
	Percent	79.0%	77.5%	89.8%

Figure 3: Comparison of proportion of children with a visit to a practitioner by age and program SFY 2006



Use of appropriate medications for people with asthma

Rates of asthma have increased slightly from last year (Figure 4). These rates are lower than the 15–20% normally reported for asthma levels within the nation due to the more stringent protocol for the designation of "persistent" asthma for this measure. The denominator of the measure is made of up enrollees who have met at least one of the following criteria in SFY 2005 and met at least one of the following criteria in SFY 2006;

at least one emergency room visit or one acute inpatient stay with asthma as the primary diagnosis,

at least four outpatient asthma visits with asthma as one of the listed diagnoses AND at least two asthma medications dispensing events, or

at least four asthma medication dispensing events.

Enrollees must also have been in Medicaid for at least 11 months in SFY 2005 and at least 11 months in SFY 2006. The numerator of the measure is comprised of enrollees with persistent asthma who were dispensed at least one prescription for inhaled corticosteroids, nedocromil, cromolyn, sodium, leukotriene modifiers, or methylxanthines during SFY 2006.

Figure 4: Rates of persistent asthma by age
SFY 2005 and SFY 2006

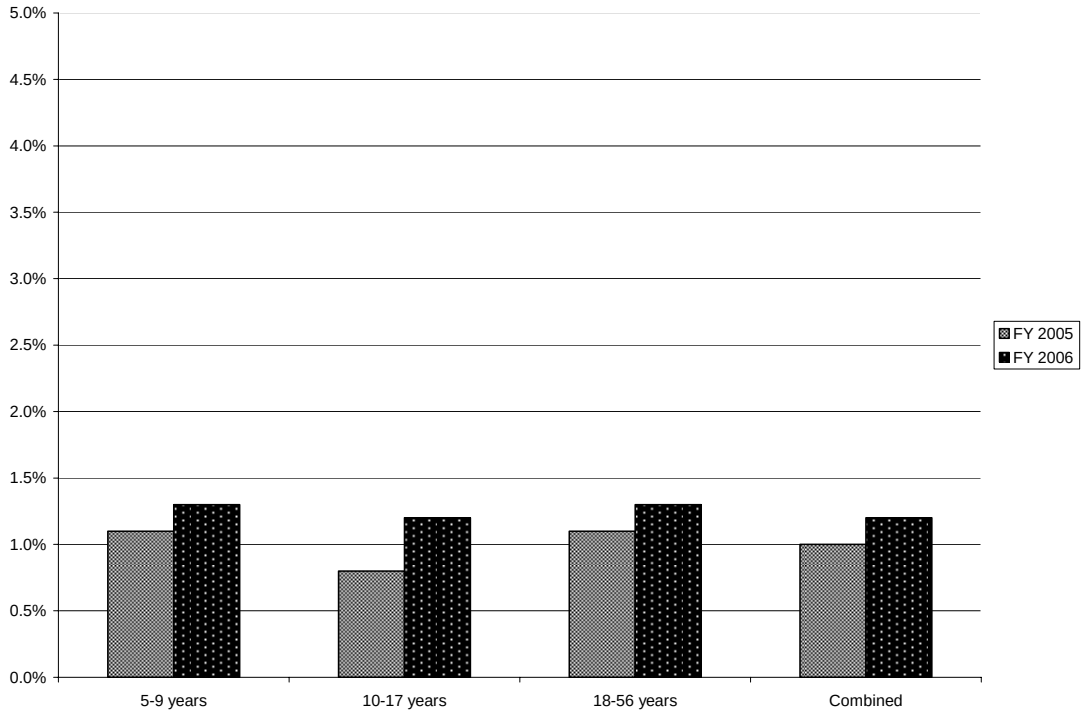


Table 10 indicates the rates of appropriate use of medications for people with asthma across age and program for SFY 2006. The lowest rates were in the HMO with only 61% of 18 to 56 years olds and 64% of 10 to 17 years olds receiving appropriate medications. However, rates within the HMO must be interpreted with care. Since there are extremely small numbers of enrollees with persistent asthma, the rates may fluctuate widely both over time and across groups. Within the fee-for-service and MediPASS groups the rates of appropriate use of medications are lower than last year.

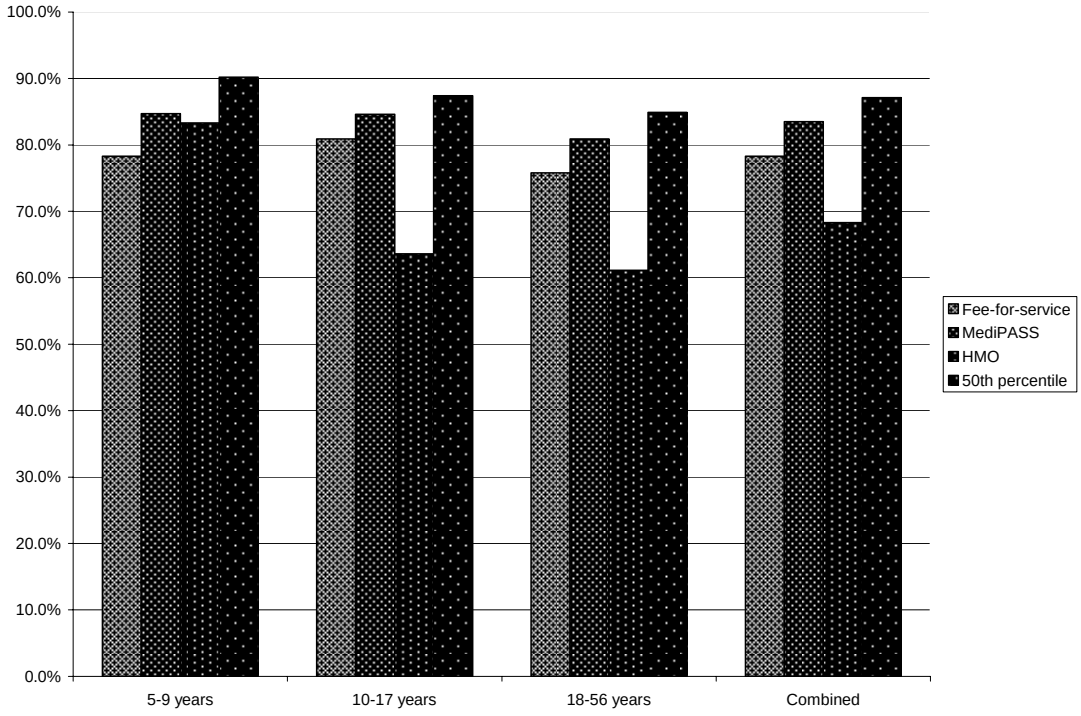
Table 10: Use of appropriate medications for people with asthma
SFY 2006

Age		FFS	MediPASS	HMO
5–9 years	Number	90	276	10
	Percent	78.3%	84.7%	83.3%
10–17 years	Number	106	297	7
	Percent	80.9%	84.6%	63.6%
18–56 years	Number	100	246	11
	Percent	75.8%	80.9%	61.1%
Total	**Number**	**296**	**819**	**28**
	Percent	**78.3%**	**83.5%**	**68.3%**

Performance target

Figure 5 provides a graphical representation of the comparison between the three Medicaid program groups and the NCQA 50th percentile for the three age groups and combined rates. From the figure it is clear that none of the groups are above the 50th percentile and that the MediPASS group comes closest to approximating the 50th percentile. Performance targets for all groups should be set at 85%.

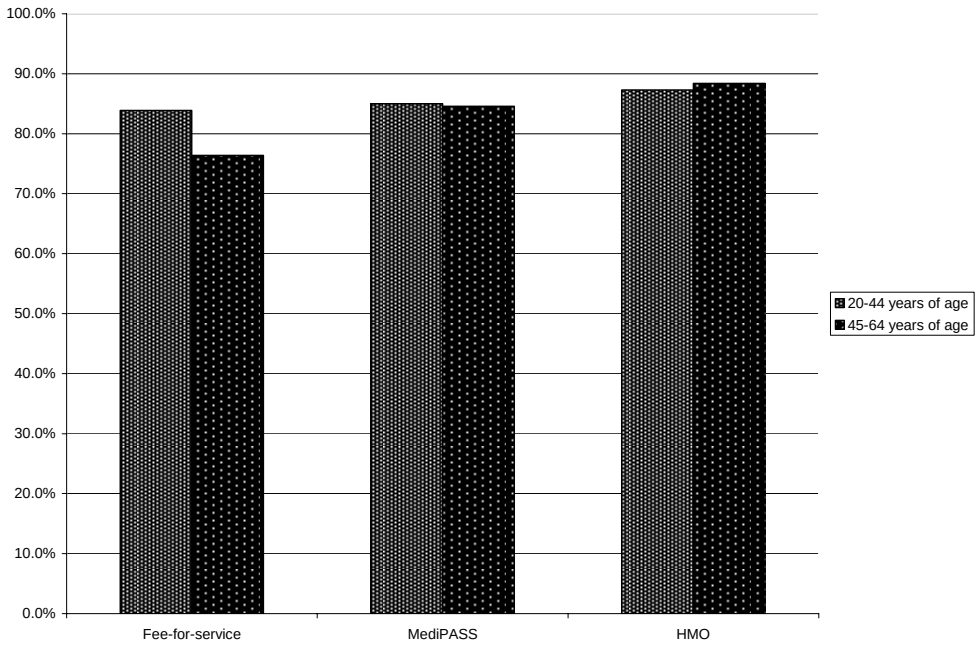
Figure 5: Use of appropriate medications for people with asthma SFY 2006 and NCQA 50th percentile



Adults' access to preventive/ambulatory health services

Adults comprise approximately 15% of the managed care eligible Medicaid population and of these 80% are women primarily between the ages of 21 and 44. Access to preventive/ambulatory care is necessary for their long-term health and more immediately, to treat them for acute diseases that may interfere with care of their children or work opportunities. The denominators for these rates are the number of adults who turned 20 to 44 years of age or 45 to 65 years of age by June 30, 2006. The numerators for these rates are the number of people within the denominator who had a preventive or ambulatory visit during SFY 2006. Figure 6 shows the proportion of adults with a preventive/ambulatory visit during SFY 2006. In general the rates are comparable to last year's rates. The rates are highest in the HMO and lowest for enrollees 45 to 65 years of age in the traditional fee-for-service program (76.4%). However, the rate for enrollees 45 to 65 years of age has risen from 62% last year to 76% this year.

Figure 6: Proportion of adults with a preventive or ambulatory visit SFY 2006



Performance target

Table 11 indicates the means and percentiles provided through NCQA. Rates for adults in the Medicaid program are favorable when compared to national means and percentiles. The Iowa rates are at the 75th percentile, with the exception of enrollees 44–65 years of age in the HMO. This group is at the 50th percentile. The performance targets for next year should be 85% for enrollees 44–65 years of age within the HMO, and 90% for all other groups.

Table 11: NCQA Means, percentiles and rates, 2006
Adults' access to preventive/ambulatory health services

Age Group	Mean	10th percentile	25th percentile	50th percentile	75th percentile	90th percentile
20–44 years	76.4%	59.3%	72.7%	79.0%	83.7%	87.0%
45–64 years	81.4%	66.7%	79.0%	84.5%	87.4%	89.4%

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, 2005 and May 5, 2006, 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 2005 and 5 May 2006 there were 12,249 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 12 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 68.6% in SFY 2006, compared with 61.6% in SFY 2005. Between 2005 and 2006 the HEDIS definition used to determine prenatal care changed slightly. The new definition expanded the code base used to identify a prenatal visit and also relaxed the conditions placed on the codes to qualify as a prenatal visit. The result of these changes increases the number of women classified as having received early prenatal care. In order to establish changes over time the 2006 rates were also calculated using the old (2005) definition, resulting in a rate of 64.8%, which indicates an increase in early prenatal care over the previous year. Women who had bundled prenatal care codes were far more likely to have received early prenatal care than those without bundled care (81.1% c.f. 28.5%). 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 (81.4% c.f. 74.1%). 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 13. The rate of postpartum care declined slightly from SFY 2005 to SFY 2006 from 33.9% to 31.4%. 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. If these codes are included to be indicative of postpartum care the rate for SFY 2006 increases to 38.4%. Furthermore, if all women with a bundled postpartum code were assumed to have received a postpartum visit then the rate for 2006 would be 81.5% and expanding the definition to the HCPC codes would further increase this rate to 84.2%. HCPCS are not used to in the HEDIS definitions and are, therefore, not routinely used in these outcome analyses. It may be reasonable to modify the HEDIS outcome measures for prenatal and postpartum care in the future to reflect the care received at maternal health centers and rural health centers by including HCPCS codes.

Table 12: Rates of early prenatal care
SFY 2005 and SFY 2006

Enrollment period	Prenatal care not bundled	Bundled prenatal care	Total
Continuously enrolled for first trimester			
2006	45.7%	90.3%	**81.4%**
2005	46.6%	78.9%	**70.0%**
Last enrollment segment commenced on or between 219 and 279 days prior to the EDD			
2006	31.7%	86.1%	**74.1%**
2005	30.8%	81.8%	**69.0%**
Last enrollment segment commenced less than 219 days prior to the EDD			
2006	14.9%	65.6%	**51.1%**
2005	13.4%	61.6%	**46.4%**
Total			
2006	**28.5%**	**81.1%**	**68.6%**
2006†	**27.1%**	**76.6%**	**64.8%**
2005	**28.8%**	**74.4%**	**61.6%**

† Using the 2005 definition. In 2006 the code base indicative of a prenatal visit was expanded and the conditions placed on those codes were relaxed.

Table 13: Rates of postpartum care
SFY 2005 and SFY 2006

Year	Postpartum care not bundled	Bundled Postpartum care	Total
2006	28.6%	32.4%	31.4%
2006†	39.0%	38.2%	38.4%
2005	29.7%	35.8%	33.9%

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

Tables 14 and 15 list the rates of prenatal and postpartum care by year and Medicaid group. Comparative definitions for each measure are again provided. Rates of prenatal care ranged from 65.0% among the fee-for-service group to 70.4% for MediPASS. Postpartum care rates ranged from 29.3% for MediPASS to 43.3% for fee-for-service. These would increase to 36.1% for MediPASS and 46.8% for fee-for-service if the additional HCPC codes were also used.

Table 14: Rates of prenatal care by program
SFY 2005 and SFY 2006

Program	2006	2006†	2005
HMO	67.2%	61.8%	43.1%
MediPASS	70.4%	66.3%	65.8%
Fee-for-service	65.0%	64.2%	58.1%
IHS to MediPASS	—	—	55.3%
IHS to FFS	—	—	52.4%

† Using the 2005 definition. In 2006 the code base indicative of a prenatal visit was expanded and the conditions placed on those codes were relaxed.

Table 15: Rates of postpartum care by program
SFY 2005 and SFY 2006

Program	2006	2006†	2005
HMO	34.6%	42.4%	52.7%
MediPASS	29.3%	36.1%	35.3%
Fee-for-service	43.3%	46.8%	36.1%
IHS to MediPASS	—	—	23.5%
IHS to FFS	—	—	25.2%

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

Performance target

The performance targets for prenatal and postpartum care should be set near the 50th percentile of the NCQA data. Table 16 indicates the percentiles for prenatal and postpartum care. The performance target for prenatal care should be set at 80% across all programs. The target for postpartum care should be set at 55% for all programs.

Table 16: NCQA Means, percentiles and rates, 2006
Prenatal and postpartum care

Age group	Mean	50th percentile	75th percentile	90th percentile
Prenatal care	79.1%	83.3%	88.1%	91.5%
Postpartum care	57.0%	58.8%	65.9%	71.0%

Comprehensive diabetes care: Hemoglobin A1c testing

The HEDIS measure for comprehensive diabetes care includes nine components: Hemoglobin A1c testing; HbA1c poor control; HbA1c good control; eye exam; LDL-C screening performed; LDL-C control; medical attention for nephropathy; blood pressure

control (<140/90mm HG); and blood pressure control (<130/80 mm HG). With the administrative data available through the Medicaid program, we are only able to determine whether an enrollee with diabetes has had Hemoglobin A1c. All other measures require the use of CPT II or LOINC codes to identify the outcome of the procedure. Currently, these codes are not widely in use for the Medicaid program.

Enrollees are designated as having diabetes for the purposes of this measure when they meet one of the following protocols during SFY 2005 or SFY 2006;

one dispensing event of insulin or hypoglycemics/antihyperglycemics,

two face-to-face encounters with different dates of service in an outpatient setting or nonacute inpatient setting with a diagnosis of diabetes, or

one face-to-face encounter in an acute inpatient or emergency department setting with a primary diagnosis of diabetes.

The rates for Hemoglobin A1c testing for the past four years are contained in Table 17. As was discussed previously, the HMO has very small numbers for some measures. The number of people with diabetes in the HMO for SFY 2006 was 23. The effect of small numbers can be seen by the widely ranging values for this measure within the HMO. The rates for enrollees in MediPASS and fee-for-service have increased dramatically over last year, for reasons that remain unclear.

Performance target

The target rate for Hemoglobin A1c testing should be set near the 50th percentile or 75%. Currently, the rates for the fee-for-service and HMO groups are below the 10th percentile, while the rate for the MediPASS group is below the 25th percentile. These results may be due to a lack of Hemoglobin A1c testing or due to our inability to find the testing if it is bundled in with other procedures or visits. Further investigation is warranted to determine whether the testing is being performed without a charge being generated.

Table 17: Comprehensive diabetes care: Hemoglobin A1c testing SFY 2003–SFY 2006

Year	FFS	MediPASS	HMO
SFY 2006	61.9%	70.3%	57.5%
SFY 2005	28.5%	33.9%	54.3%
SFY 2004	N/A	27.9%	90.0%
SFY 2003	N/A	28.7%	46.2%

Appendix A: Summary of Outcomes by managed care plan, SFY 2006

Measure	Coventry	MediPASS	FFS	50th Percentile NCQA	Performance Target
Well-child visits in the first 15 months of life					
0 visits	1.7%	10.0%	9.4%	2.0%	7.5%
1 visit	3.7%	6.5%	5.5%	2.5%	4.5%
2 visits	9.4%	5.5%	6.1%	4.0%	5.0%
3 visits	12.7%	7.7%	8.8%	6.8%	8.0%
4 visits	13.7%	12.5%	13.9%	12.5%	13.0%
5 visits	21.7%	18.7%	20.3%	19.0%	20%
6 or more visits	37.1%	39.0%	36.1%	50.0%	42.0%
Well-child visits in the third, fourth, fifth and sixth year of life					
Visit in the 3rd year of life	48.6%	65.3%	63.3%	N/A	N/A
Visit in the 4th year of life	55.6%	75.4%	74.1%	N/A	N/A
Visit in the 5th year of life	53.8%	77.6%	74.8%	N/A	N/A
Visit in the 6th year of life	35.6%	58.2%	55.6%	N/A	N/A
Visit in 3rd-6th years of life	48.3%	69.3%	67.0%	64.8%	68.0%
Annual dental visit (new categories)					
2–3 years old	15.5%	24.2%	23.9%	N/A	N/A
4–6 years old	46.3%	55.6%	51.2%	49.3%	58.0%
7–10 years old	50.8%	59.2%	53.5%	50.0%	60.0%
11–14 years old	46.4%	55.5%	49.7%	45.0%	57.5%
15–18 years old	46.0%	48.7%	45.2%	36.7%	50.0%
19-21 years old	40.4%	39.9%	42.7%	31.6%	43.5%
Children's and adolescents' access to primary care practitioners					
12–24 months old	97.5%	81.2%	84.5%	94.8%	89.0%
2–6 years old	83.9%	67.0%	64.3%	85.4%	70.5%
7–11 years old	87.4%	78.4%	79.5%	84.9%	81.0%
12–19 years old	89.8%	77.5%	79.0%	83.4%	83.0%
Combined	87.8%	73.7%	73.4%	NA	NA
Use of appropriate medications for people with asthma					
5–9 years old	83.3%	84.7%	78.3%	90.2%	85.0%
10–17 years old	63.6%	84.6%	80.9%	87.4%	85.0%
18–56 years old	61.1%	80.9%	75.8%	84.9%	82.5%
Combined	68.3%	83.5%	78.3%	87.1%	85.0%
Adult's access to preventive/ambulatory health services					
20–44 years old	87.3%	85.0%	83.9%	79.0%	88.0%
45–64 years old	88.4%	84.6%	76.4%	84.5%	86.0%
Prenatal and postpartum care					
Prenatal care	67.2%	70.4%	65.0%	83.3%	72.5%
Postpartum care	46.8%	36.1%	42.4%	58.8%	50.0%
Comprehensive diabetes care					
Hemoglobin A1c	57.5%	70.3%	61.9%	77.4%	72.0%

N/A-No rate provided in NCQA audited means, percentiles and ratios

Appendix B: Summary of Outcomes by managed care plan, SFY 2005

Measure	Coventry	MediPASS	FFS	IHS to MediPASS	IHS to FFS
Well-child visits in the first 15 months of life					
0 visits	2.1%	11.9%	8.1%	1.9%	2.0%
1 visit	3.8%	6.4%	5.0%	3.7%	2.6%
2 visits	4.3%	5.8%	6.7%	4.8%	5.1%
3 visits	9.0%	7.3%	8.3%	10.5%	7.5%
4 visits	14.5%	11.3%	12.0%	13.3%	11.4%
5 visits	21.8%	15.0%	15.2%	14.2%	19.1%
6 or more visits	44.4%	42.2%	44.7%	51.5%	52.3%
Well-child visits in the third, fourth, fifth and sixth year of life					
Visit in the 3rd year of life	73.2%	76.6%	74.2%	76.2%	82.7%
Visit in the 4th year of life	79.0%	80.1%	78.7%	79.9%	87.8%
Visit in the 5th year of life	79.7%	81.2%	77.3%	80.0%	85.2%
Visit in the 6th year of life	31.2%	63.5%	55.5%	54.5%	57.4%
Visit in 3rd-6th years of life	66.9%	74.8%	71.6%	73.1%	80.4%
Annual dental visit (new categories)					
2–3 years old	17.8%	26.6%	26.8%	28.9%	32.1%
4–6 years old	55.2%	57.4%	52.7%	56.9%	61.5%
7–10 years old	56.9%	61.1%	54.3%	58.8%	60.0%
11–14 years old	50.9%	56.9%	52.0%	54.2%	55.6%
15–18 years old	49.4%	49.4%	47.1%	45.0%	50.5%
19-21 years old	41.4%	43.5%	41.0%	38.8%	41.1%
Annual dental visit (old categories)					
1–3 years old	11.8%	19.0%	19.5%	20.3%	23.6%
4–6 years old	55.2%	57.4%	52.7%	56.9%	61.5%
7–11 years old	55.9%	60.8%	54.4%	58.7%	59.5%
12–15 years old	50.2%	54.6%	51.3%	51.0%	53.9%
16–18 years old	49.8%	49.3%	45.1%	45.0%	50.5%
Children's and adolescents' access to primary care practitioners					
12–24 months old	99.6%	99.2%	97.2%	99.2%	100.0%
2–6 years old	86.8%	93.9%	90.4%	92.6%	93.8%
7–11 years old	88.3%	91.2%	89.4%	91.7%	93.1%
12–19 years old	86.9%	91.9%	89.9%	91.4%	94.1%
Combined	89.2%	93.3%	90.7%	93.1%	94.7%
Use of appropriate medications for people with asthma					
5–9 years old	57.1%	92.4%	95.7%	76.9%	80.0%
10–17 years old	100.0%	95.1%	90.0%	78.4%	78.9%
18–56 years old	80.0%	85.2%	81.0%	84.8%	81.0%
Combined	77.3%	91.4%	88.1%	79.5%	80.0%
Adult's access to preventive/ambulatory health services					
20–44 years old	87.8%	85.1%	84.5%	84.3%	90.7%
45–64 years old	88.2%	85.3%	62.3%	84.9%	85.7%
Prenatal and postpartum care					
Prenatal care	43.1%	65.8%	58.1%	55.3%	52.4%

Postpartum care	52.7%	35.3%	36.1%	23.5%	25.2%
Comprehensive diabetes care					
Hemoglobin A1c	54.3%	33.9%	28.5%	40.6%	60.0%

Appendix C: Summary of Outcomes by managed care plan, SFY 2004

Measure	John Deere	Coventry	Iowa Health Solutions	MediPASS
Well-child visits in the first 15 months of life				
0 visits	3.1%	0.0%	1.0%	0.2%
1 visit	8.5%	0.0%	2.6%	0.7%
2 visits	6.3%	4.3%	7.1%	2.0%
3 visits	11.6%	14.9%	13.6%	2.6%
4 visits	15.9%	19.1%	23.3%	6.7%
5 visits	19.8%	38.3%	26.4%	10.1%
6 or more visits	34.8%	23.4%	26.0%	77.7%
Well-child visits in the third, fourth, fifth and sixth year of life				
Visit in the 3rd year of life	53.2%	72.5%	64.3%	76.4%
Visit in the 4th year of life	65.4%	80.2%	70.3%	80.8%
Visit in the 5th year of life	64.6%	82.8%	63.8%	80.8%
Visit in the 6th year of life	38.2%	20.1%	44.3%	63.5%
Visit in 3rd-6th years of life	56.2%	75.3%	61.3%	75.6%
Annual dental visit				
1–3 years old	28.0%	11.7%	21.2%	19.7%
4–6 years old	64.4%	55.4%	59.4%	60.9%
7–11 years old	62.3%	51.1%	59.6%	64.0%
12–15 years old	53.9%	52.4%	52.0%	58.1%
16–18 years old	46.4%	54.8%	45.1%	50.2%
Children's and adolescents' access to primary care practitioners				
12–24 months old	98.1%	100.0%	97.6%	92.4%
2–6 years old	87.1%	85.7%	88.7%	83.0%
7–11 years old	86.0%	88.8%	86.9%	82.6%
12–19 years old	89.7%	88.0%	84.6%	81.4%
Use of appropriate medications for people with asthma				
5–9 years old	40.6%	50.0%	63.3%	79.9%
10–17 years old	52.9%	75.0%	58.0%	70.6%
18–56 years old	50.0%	20.0%	55.3%	55.1%
Combined	47.8%	38.9%	57.8%	69.3%
Adult's access to preventive/ambulatory health services				
20–44 years old	85.1%	88.8%	88.7%	81.0%
45–64 years old	78.8%	81.3%	86.5%	85.5%
Prenatal and postpartum care				
Prenatal care	63.0%	55.5%	63.0%	63.8%
Postpartum care				
Comprehensive diabetes care				
Hemoglobin A1c	84.8%	90.0%	20.0%	27.9%

Appendix D: Summary of Outcomes by managed care plan, SFY 2003

Measure	John Deere	Coventry	Iowa Health Solutions	MediPASS
Well-child visits in the first 15 months of life				
0 visits	1.5%	0.0%	0.2%	0.3%
1 visit	8.7%	1.1%	4.0%	1.8%
2 visits	9.0%	2.2%	5.2%	2.2%
3 visits	10.0%	9.7%	8.9%	4.3%
4 visits	12.6%	29.0%	12.6%	6.9%
5 visits	15.9%	24.7%	19.1%	11.6%
6 or more visits	42.2%	33.3%	50.1%	73.0%
Well-child visits in the third, fourth, fifth and sixth year of life				
Visit in the 3rd year of life	56.1%	89.4%	73.4%	77.6%
Visit in the 4th year of life	62.7%	85.3%	78.7%	82.8%
Visit in the 5th year of life	58.8%	73.6%	75.9%	81.7%
Visit in the 6th year of life	37.8%	55.7%	43.3%	61.2%
Visit in the 3rd-6th years of life	53.9%	76.7%	68.9%	76.2%
Annual dental visit				
1–3 years old	21.9%	18.0%	21.3%	18.7%
4–6 years old	62.7%	54.3%	57.2%	54.3%
7–11 years old	62.9%	50.9%	57.9%	63.5%
12–15 years old	56.2%	46.5%	51.3%	57.0%
16–18 years old	47.5%	47.0%	45.8%	51.2%
Children's and adolescents' access to primary care practitioners				
12–24 months old	71.9%	91.0%	90.0%	92.8%
2–6 years old	59.2%	69.7%	73.2%	83.6%
7–11 years old	75.2%	72.7%	76.9%	82.7%
12–19 years old	72.3%	77.1%	74.5%	82.1%
Use of appropriate medications for people with asthma				
5–9 years old	55.6%	33.3%	55.8%	58.4%
10–17 years old	51.5%	25.0%	62.7%	57.1%
18–56 years old	55.4%	42.9%	40.5%	56.9%
Combined	54.2%	33.3%	54.7%	57.5%
Adult's access to preventive/ambulatory health services				
20–44 years old	69.5%	88.8%	87.2%	84.6%
45–64 years old	63.6%	70.6%	87.7%	83.4%
Prenatal and postpartum care				
Prenatal care Postpartum care	60.4%	53.5%	63.5%	65.2%
Comprehensive diabetes care				
Hemoglobin A1c	51.3%	46.2%	48.2%	28.7%

Appendix E: Technical specifications for outcomes 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 14-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, 99288 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: 100-114, 119, 120-124, 129, 130-134, 139, 140-144, 149, 150-154, 159, 160-164, 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, 99341-99345, 99347-99350, 99382-99386, 99392-99396, 99401-99404, 99411, 99412, 99420, 99429, 99499 or one of the revenue codes: 510-519, 520-529, 570-579, 770- 779, 982, or 983 with a 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, 99301-99310, 99311-99313, 99318, 99321-99328, 99331-99337, 99385-99387, 99395-99397, 99401-99404, 99411-99412, 99420, 99429, 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, 647.11, 647.21, 647.31, 647.41, 647.51, 647.61, 647.71, 647.81, 647.91, 647.02, 647.12, 647.22, 647.32, 647.42, 647.52, 647.62, 647.72, 647.82, 647.92, 648.01, 648.11, 648.21, 648.31, 648.41, 648.51, 648.61, 648.71, 648.81, 648.91, 648.02, 648.12, 648.22, 648.32, 648.42, 648.52, 648.62, 648.72, 648.82, 648.92, 651.01, 651.11, 651.21, 651.31, 651.41, 651.51, 651.61, 651.71, 651.81, 651.91, 652.01, 652.11, 652.21, 652.31, 652.41, 652.51, 652.61, 652.71, 652.81, 652.91, 653.01, 653.11, 653.21, 653.31, 653.41, 653.51, 653.61, 653.71, 653.81, 653.91, 654.01, 654.11, 654.21, 654.31, 654.41, 654.51, 654.61, 654.71, 654.81, 654.91, 654.02, 654.12, 654.32, 654.42, 654.52, 654.62, 654.72, 654.82, 654.92, 655.01, 655.11, 655.21, 655.31, 655.41, 655.51, 655.61, 655.71, 655.81, 655.91, 656.01, 656.11, 656.21, 656.31, 656.51, 656.61, 656.71, 656.81, 656.91, 657.01, 658.01, 658.11, 658.21, 658.31, 658.41, 658.51, 658.61, 658.71, 658.81, 658.91, 659.01, 659.11, 659.21, 659.31, 659.41, 659.51, 659.61, 659.71, 659.81, 659.91, 660.01, 660.11, 660.21, 660.31, 660.41, 660.51, 660.61, 660.71, 660.81, 660.91, 661.01, 661.11, 661.21, 661.31, 661.41, 661.51, 661.61, 661.71, 661.81, 661.91, 662.01, 662.11, 662.21, 662.31, 662.41, 662.51, 662.61, 662.71, 662.81, 662.91, 663.01, 663.11, 663.21, 663.31, 663.41, 663.51, 663.61, 663.71, 663.81, 663.91, 664.01, 664.11, 664.21, 664.31, 664.41, 664.51, 664.61, 664.71, 664.81, 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, 666.12, 666.22, 666.32, 666.42, 666.52, 666.62, 666.72, 666.82, 666.92, 667.02, 667.12, 667.22, 667.32, 667.42, 667.52, 667.62, 667.72, 667.82, 667.92, 668.01, 668.11, 668.21, 668.31, 668.41, 668.51, 668.61, 668.71, 668.81, 668.91, 668.02, 668.12, 668.22, 668.32, 668.42, 668.52, 668.62, 668.72, 668.82, 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, 671.91, 671.92, 672.02, 673.01, 673.11, 673.21, 673.31, 673.41, 673.51, 673.61, 673.71, 673.81, 673.91, 673.02, 673.12, 673.22, 673.32, 673.42, 673.52, 673.62, 673.72, 673.82, 673.92, 674.01, 674.51, 674.02, 674.12, 674.22, 674.32, 674.42, 674.52, 674.62, 674.72, 674.82, 674.92, 675.01, 675.11, 675.21, 675.31, 675.41, 675.51, 675.61, 675.71, 675.81, 675.91, 675.02, 675.12, 675.22, 675.32, 675.42, 675.52, 675.62, 675.72, 675.82, 675.92, 676.01, 676.11, 676.21, 676.31, 676.41, 676.51, 676.61, 676.71, 676.81, 676.91, 676.02, 676.12, 676.22, 676.32, 676.42, 676.52, 676.62, 676.72, 676.82, 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, 639, 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 diabetes18–64 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;

1. at least one emergency visit defined by one of the procedure codes: 99281-99285, 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) ,
2. 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: 100-114, 119, 120-124, 129, 130-134, 139, 140-144, 149, 150-154, 159, 160-164, 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),

3. at least 2 outpatient/physician visits defined by one of the procedure codes: 99201-99205, 99211-99215, 99217-99220, 99241-99245, 99341-99345, 99347-99350, 99382-99386, 99392-99396, 99401-99404, 99411, 99412, 99420, 99429, 99499 or one of the revenue codes: 510-519, 520-529, 570-579, 770- 779, 982, or 983 and with a diagnosis of diabetes (ICD-9-CM 250.00-250.99, 357.2, 362.0, 366.41, 648.0), or
4. Have at least one diabetes medication dispensing event. A list of insulin and oral hypoglycemics/antihyperglycemics 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.