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Outcomes of care for Iowa Medicaid managed care enrollees. State Fiscal Years 2003 and 2004. Final Report to the Iowa Department of Human Services

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Outcomes of care for Iowa Medicaid managed care enrollees

State Fiscal Years 2003 and 2004

Final Report to the Iowa Department of Human Services

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Outcomes of care for Iowa Medicaid managed care enrollees

State Fiscal Years 2003 and 2004

Introduction

The Iowa Department of Human Services contracts with The University of Iowa Public Policy Center to conduct an ongoing evaluation of the Iowa Medicaid managed care program. Outcomes from consumer assessment surveys[1] and administrative enrollment, claims, and encounter data are used to determine the effectiveness of the program based on established national protocols for evaluating managed health care plans. This report provides the outcomes of care within the Iowa Medicaid managed care program for state fiscal years (SFY) 2003 and 2004 using the administrative data. Results are presented for the Healthplan Employer Data and Information Set (HEDIS) outcome measures that the Center for Medicare and Medicaid Services has designated must be evaluated by all state Medicaid programs.

Each HEDIS outcome measure is a rate or proportion that indicates the percent of people in the base population (denominator) who are included in the group of people who received treatment or utilized health care services (numerator). Although we attempted to use the exact protocols provided in the HEDIS 2004 Technical Specifications from the National Committee for Quality Assurance (NCQA),[2] it was not always possible to do so because of issues involving the availability of data in the Medicaid administrative files. Modifications to the measures usually involved changing the definition of who should be included in the base population, but could also result in a method change for counting who received a treatment or service. Changes were made to the protocols only when absolutely necessary. All modifications to the HEDIS protocols are noted in the text for each outcome. The full HEDIS specifications for the outcomes are contained in Appendix C.

The Iowa Medicaid managed care program

During the study period (SFYs 2003 and 2004), two models of managed care were operating in the Iowa Medicaid program. The first was the primary care case management (PCCM) program, MediPASS, in which enrollees select or are assigned to a physician for their primary care. This provider must then approve certain specialty care and non-emergent emergency room use. The second type was the private HMO. Three HMOs—John Deere Health Plan, Coventry Health Care, and Iowa Health Solutions (IHS)—had contracts to provide services for Medicaid managed care enrollees in certain parts of the state. Both programs operate on a county-by-county basis, with five counties (Iowa, Louisa, Poweshiek, Ringgold, Washington) having neither program.

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[1] The latest report concerning outcomes of care from the consumer assessment surveys for SFY 2004 titled "Iowa Medicaid Managed Care Evaluation—The Consumer Perspective" is available at http://ppc.uiowa.edu/health/medicaidweb/04consumerpersp.html.

[2] National Committee for Quality Assurance. 2004. The Healthplan Employer Data and Information Set (HEDIS). Technical Specifications, Vol.2. Washington, DC. Available at http://www.ncqa.org/Programs/HEDIS.

The distribution of MediPASS and HMO health plans by county during SFY 2003 and 2004 is shown in Figure 1.

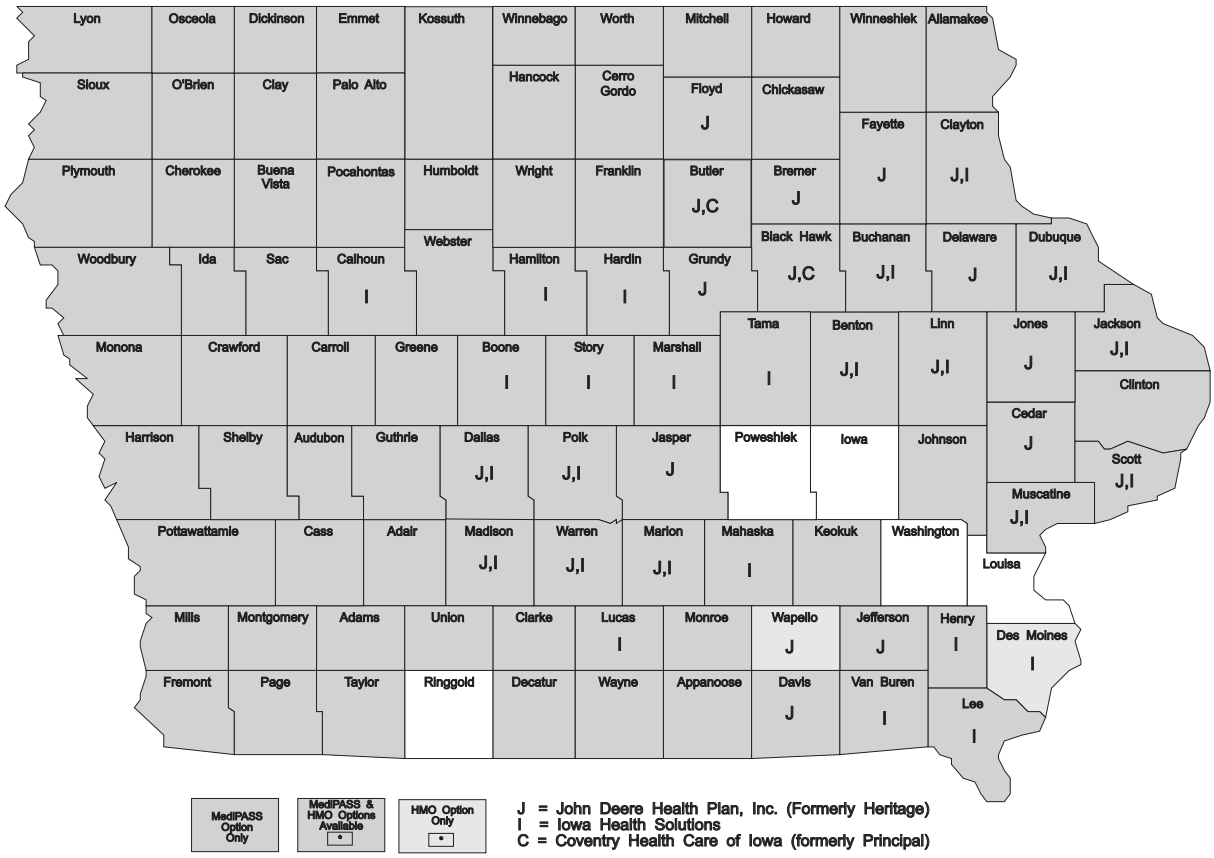

Figure 1. Medicaid managed care plans by county during SFY 2003 and 2004

Beginning in SFY 2005 (1 July 2004), John Deere Health Plan was no longer a service provider for Medicaid recipients. Although this took place after the study period for this report, the imminent loss of John Deere appears to have affected enrollment in the plans, which in turn may have influenced the rates of the outcomes. John Deere had served approximately 20% of the Medicaid managed care population until shortly before it withdrew from being a Medicaid-participating health plan. Figure 2 shows the shift in coverage that occurred as the end of John Deere's time in the program approached. As people shifted to other plans prior to the July 1, 2004, date, the number of people in the base population for calculating the outcome rates for John Deere was reduced, as was the number of people receiving treatment or services. Outcome results for John Deere during SFY 2004 should therefore be interpreted with care.

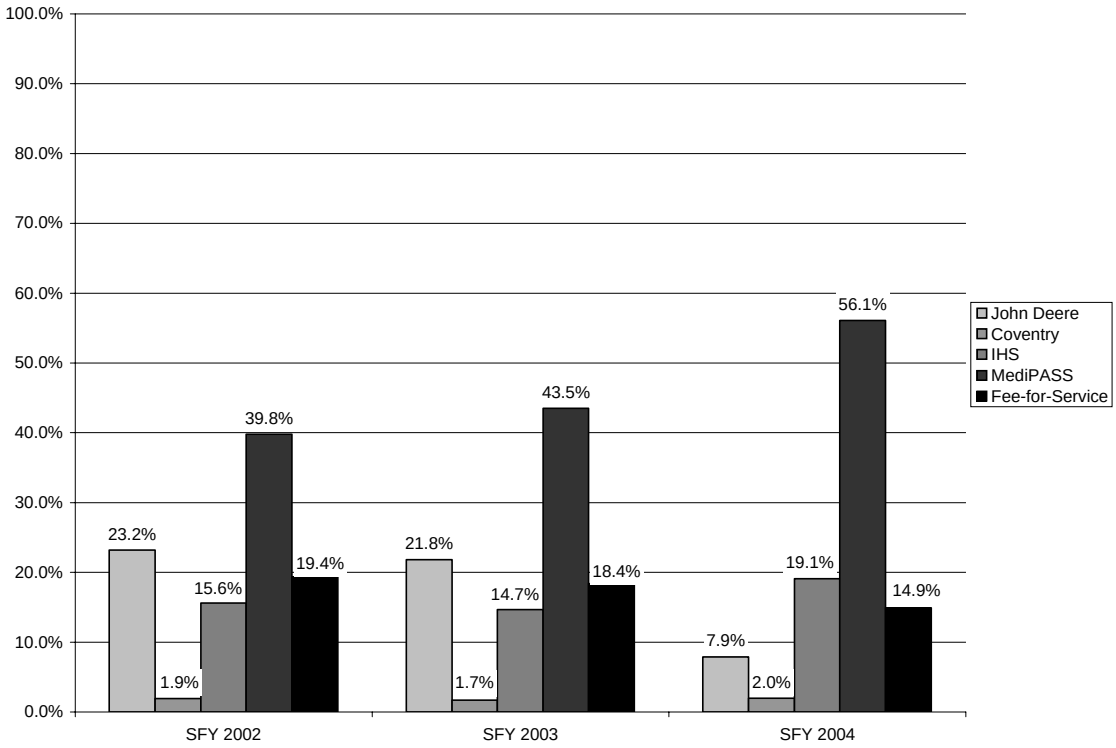

Figure 2. Distribution of Medicaid recipients by managed care plan and year

Medicaid recipients appear to have shifted most often from John Deere to MediPASS and Iowa Health Solutions. Overall, this shift would appear to have had a positive impact on Iowa Medicaid enrollees as the outcome results in this report are generally positive for MediPASS, indicating that this portion of the Medicaid managed care program is performing well.

The shift in enrollment patterns between plans due to the imminent loss of John Deere also affected the outcomes in that many of the HEDIS protocols require enrollees to be in a particular plan for a set number of months (usually 11–12 months) before they can be included in the rates. For example, while the total number of children enrolled in Medicaid increased from SFY 2003 to SFY 2004, the number included in the outcome measures for well-child visits in the first 15 months of life decreased during this time period. This is a result of a decrease in the number of children with an enrollment span sufficient to be included in the measures (14–15 months in a row in the same plan). This shift may have affected the outcome rate found for this measure in SFY 2004.

Outcome measures

Well-child visits in the first 15 months of life

Specifications

For this HEDIS measure, children are expected to have at least six well-child visits from one month following birth through the date when they turn 15 months old. No modifications to the HEDIS protocol were needed for this measure. Children are included in the base population (the rate denominator) if they turned 15 months of age during the measurement year and were eligible for at least 14 of the first 15 months of life. For this report we have two base populations: those who turned 15 months old during SFY 2003 and those who turned 15 months old in SFY 2004. Children are included in the numerator based on the number of visits they had between the period starting 31 days after birth and continuing through the day they turn 15 months of age. There are seven rates calculated for each measurement year: proportion of children with zero visits, one visit, two visits, three visits, four visits, five visits, and six or more visits.

Results

Tables 1 and 2 show the results for this measure for the two fiscal years. Children in MediPASS had the highest percentage of children receiving at least six well-child visits in the first 15 months of life, with a rate of 78% in both SFY 2003 and SFY 2004. For both years, over 90% of the children in MediPASS received four or more visits. Children in the HMOs were less likely to receive at least six visits in the first 15 months of life. The lowest rate was in Coventry, with 35% receiving at least six visits in SFY 2003 and 23% receiving at least six visits in SFY 2004; however, 91% received four or more visits in SFY 2003 and 81% received four or more visits in SFY 2004. Among the HMOs, Iowa Health Solutions had the highest proportion of children with six or more visits in SFY 2003 (52%), while John Deere had the highest proportion in SFY 2004 (35%).

Table 1. Proportion of 15-month-old children with a well-child visit by number of visits and managed care plan, SFY 2003

Managed care plan	0	1	2	3	4	5	6+	Number in plan
John Deere	1.1%	9.4%	8.6%	9.2%	12.6%	15.9%	42.9%	860
Coventry	0.0%	1.4%	4.3%	2.9%	27.5%	29.0%	34.8%	69
IHS	0.2%	3.6%	5.6%	6.0%	12.6%	20.0%	52.0%	554
MediPASS	0.4%	1.3%	1.2%	3.4%	5.7%	9.8%	78.2%	820
Combined	0.7%	4.9%	5.1%	6.2%	10.6%	15.1%	57.4%	2303

Table 2. Proportion of 15-month-old children with a well-child visit by number of visits and managed care plan, SFY 2004

Managed care plan	0	1	2	3	4	5	6+	Number in plan
John Deere	3.1%	8.5%	6.3%	11.6%	15.9%	19.8%	34.8%	414
Coventry	0.0%	0.0%	4.3%	14.9%	19.1%	38.3%	23.4%	47
IHS	1.0%	2.6%	7.1%	13.6%	23.3%	26.4%	26.0%	605
MediPASS	0.2%	0.7%	2.0%	2.6%	6.7%	10.1%	77.7%	994
Combined	1.0%	2.8%	4.4%	7.9%	13.7%	17.5%	52.6%	2060

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

Specifications

This measure indicates the number of children who had at least one well-child visit during the measurement year. Rates are calculated separately for children three, four, five and six years old. Visits with a diagnosis code indicating a general examination or well-child visit and an evaluation and management code are counted in the measure. Children who were eligible for at least 11 months during the measurement year were included.

Results

Table 3 shows the number of children by plan and year who had a well-child visit. Figures 3–6 show the proportion of children with such a visit. Coventry had the highest proportion of children with well-child visits for children aged three and four during SFY 2003. However, Coventry had less than 100 children in each category, and the proportion should be interpreted with care due to these small numbers (Table 3).

Table 3. Number of children who had a well-child visit by managed care plan and year

Managed Care Plan		SFY 2003		SFY 2004	
		Number with a well-child visit	Total number of children	Number with a well-child visit	Total number of children
John Deere	3 years old	604	1076	148	278
	4 years old	661	1055	172	263
	5 years old	565	961	181	280
	6 years old	383	1013	84	220
Coventry	3 years old	76	85	50	69
	4 years old	58	68	65	81
	5 years old	53	72	48	58
	6 years old	39	70	41	63
IHS	3 years old	546	744	460	715
	4 years old	583	741	489	696
	5 years old	520	685	413	647
	6 years old	260	601	260	587
MediPASS	3 years old	1629	2100	1494	1956
	4 years old	1663	2008	1654	2046
	5 years old	1591	1948	1492	1847
	6 years old	1106	1806	1156	1821

The MediPASS program also had high proportions of children with well-child visits, especially in SFY 2004. These results are consistent with past outcome reports that found children in MediPASS were more likely to receive a well-child visit. In the past, the proportion of children in John Deere with a well-child visit was usually equal to or greater than MediPASS, and much higher than Iowa Health Solutions. In these two fiscal years, however, John Deere's rates were the lowest. As has been the case in past years, the highest rates of well-child visits were during the fourth and fifth year of life. This is most likely due to the need for vaccinations prior to entering school and the kindergarten physical required by some schools.

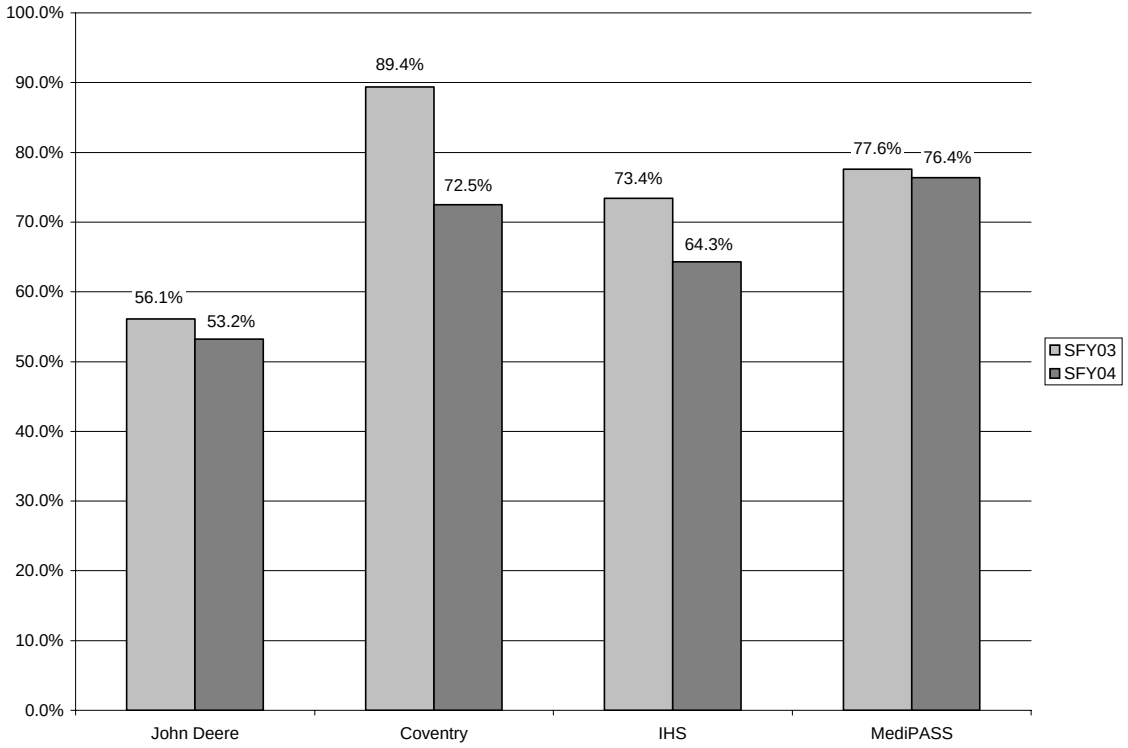

Figure 3. Proportion of children 3 years old with a well-child visit by managed care plan and year

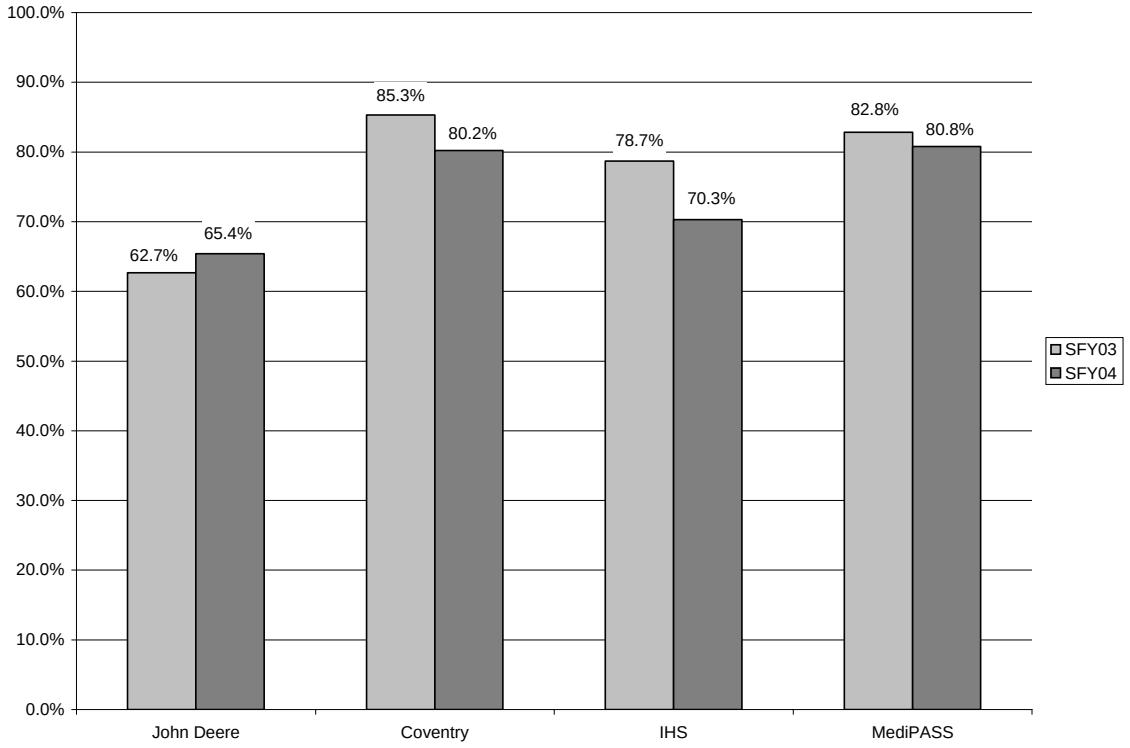

Figure 4. Proportion of children 4 years old with a well-child visit by managed care plan and year

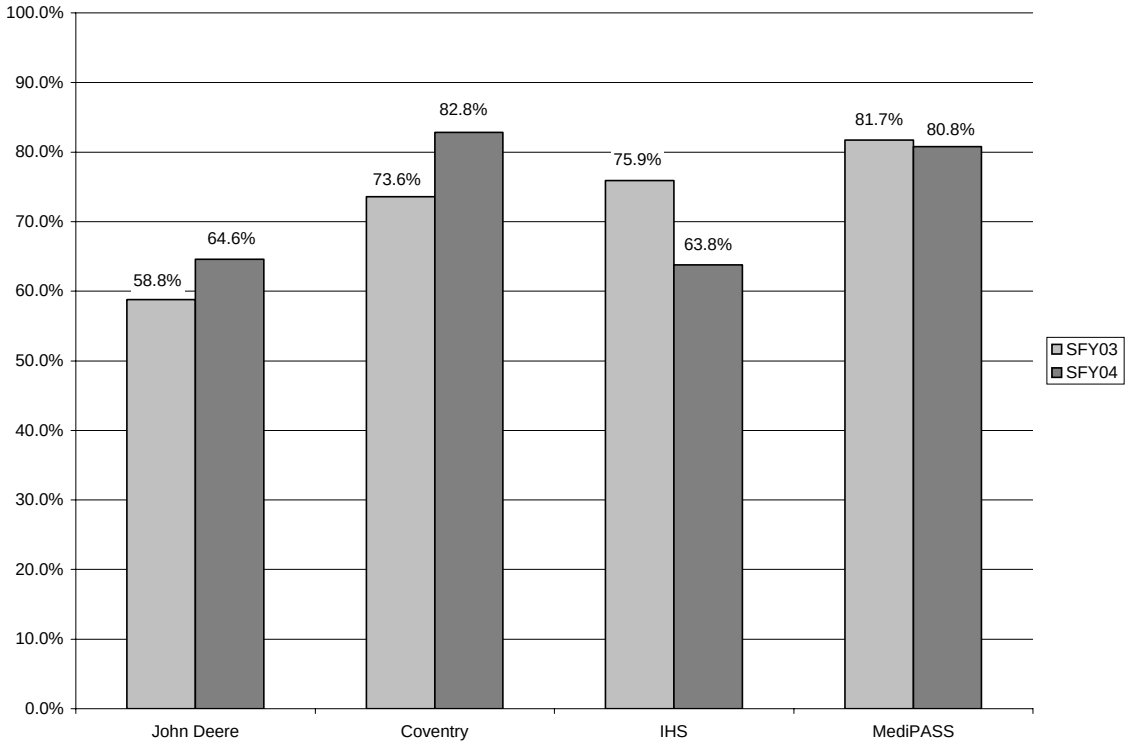

Figure 5. Proportion of children 5 years old with a well-child visit by managed care plan and year

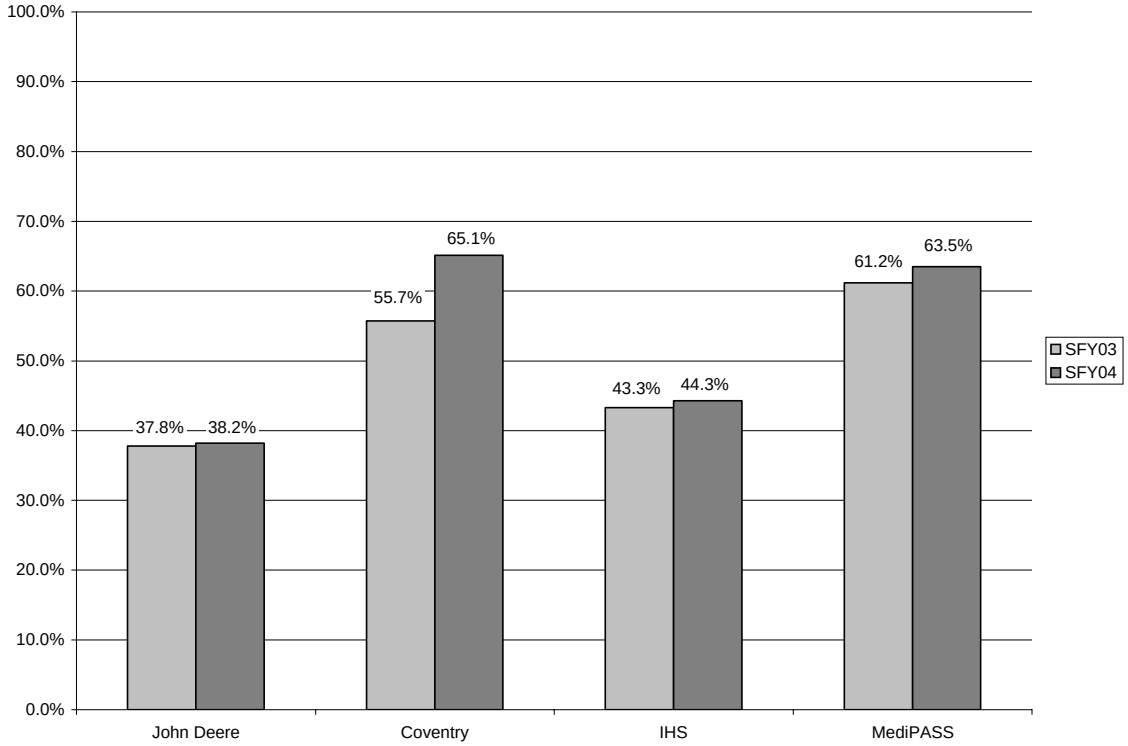

Figure 6. Proportion of children 6 years old with a well-child visit by managed care plan and year

Annual dental visit

Specifications

While the HEDIS outcome measures only whether a child had any dental visit during the year, for the purposes of this report, we provide information on both the proportion of children who had a preventive dental visit and those who received any dental care at all. All eligible children ages one through nineteen are included for the dental visit outcome. Children were divided into five age groups for this outcome: 1–3 years old, 4–6 years old, 7–11 years old, 12–15 years old, and 16–18 years old. All children included had to be eligible for at least 11 months during the measurement year. Although the Iowa Medicaid program operates a traditional fee-for-service dental program that is not under the responsibility of the managed care plans, the results are presented by plan in this report to indicate potential differences in the enrollee populations of the plans.

Results

Tables 4 and 6 provide the proportion of children who received any dental care during SFYs 2003 and 2004. The proportion of children who received any dental care includes all of the children who had preventive care plus the proportion who had treatment but no recorded preventive care. For these two years, Iowa continued the trend of having a relatively high proportion of children in Medicaid managed care receiving a dental visit (42–64% for 4–18-year-olds). Tables 5 and 7 indicate the proportion of children who received a preventive dental visit.

As in the past, dental utilization rates were extremely low for children from one to three years of age. Children aged four to eleven were the most likely group to receive dental care. These patterns are very similar to those found in previous evaluations. By subtracting the proportion in Table 5 from that in Table 4, we find the proportion who received treatment but no preventive care in SFY 2003; the same procedure can be repeated with Tables 6 and 7 for SFY 2004. Only 1.5% of all children (SFY 2003) and 1.7% of all children (SFY 2004) were seen for treatment without a preventive visit during the year.

Table 4. Rates of any dental visit by age group and managed care plan, SFY 2003

Age group (years)	John Deere	Coventry	IHS	MediPASS
1–3	21.9%	18.0%	21.3%	18.7%
4–6	62.7%	54.3%	57.2%	61.0%
7–11	62.9%	50.9%	57.9%	63.5%
12–15	56.2%	46.5%	51.3%	57.0%
16–18	47.5%	47.0%	45.8%	51.2%
Total	50.2%	42.9%	46.0%	50.7%

Table 5. Rates of preventive dental visits by age group and managed care plan, SFY 2003

Age group (years)	John Deere	Coventry	IHS	MediPASS
1–3	21.7%	18.0%	20.9%	18.5%
4–6	61.4%	53.3%	56.3%	59.5%
7–11	60.9%	49.7%	56.1%	61.7%
12–15	54.3%	42.0%	49.2%	54.7%
16–18	44.6%	42.0%	43.3%	48.9%
Total	48.7%	41.1%	44.7%	49.2%

Table 6. Rates of any dental visit by age group and managed care plan, SFY 2004

Age group (years)	John Deere	Coventry	IHS	MediPASS
1–3	28.0%	11.7%	21.2%	19.7%
4–6	64.4%	55.4%	59.4%	60.9%
7–11	62.3%	51.1%	59.6%	64.0%
12–15	53.9%	52.4%	52.0%	58.1%
16–18	46.4%	54.8%	45.1%	50.2%
Total	51.7%	44.3%	47.0%	51.3%

Table 7. Rates of preventive dental visits by age group and managed care plan, SFY 2004

Age group (years)	John Deere	Coventry	IHS	MediPASS
1–3	27.9%	11.7%	21.0%	19.5%
4–6	63.2%	54.5%	58.3%	59.5%
7–11	61.1%	48.9%	58.2%	61.7%
12–15	52.5%	50.8%	49.9%	55.8%
16–18	44.4%	53.8%	42.6%	47.6%
Total	50.6%	43.1%	45.8%	49.6%

Children's and adolescents' access to primary care practitioners

Specifications

In the HEDIS specifications, this measure is designed to calculate the proportion of children who have seen a primary care practitioner within their plan. Specifically, it provides a test to see whether there are enough practitioners in the provider network to allow for adequate access to primary care. We modified the measure to include children and adolescents with any of the HEDIS specified procedure codes and diagnosis codes in the numerator, regardless of the provider seen. This modification was necessary because we have very little provider information in the encounter files and the provider listed on the claims files may be a large clinic that does not allow us to ascertain the specific provider for every visit.

Children and adolescents were divided into four age groups for this measure. Groups 1 and 2 included children 12–24 months, and children 25 months to 6 years of age, respectively. For these two groups, all children meeting the age criterion by June 30th of the measurement year and who were eligible for at least 11 months in that year were included in the denominator. Children were included in the numerator of the rate if they had a visit with a primary care practitioner during the measurement year. Groups 3 and 4 included children 7 to 11 years and adolescents 12 to 19 years of age, respectively. The denominator for this rate was composed of all children meeting the age criterion by June 30th of the measurement who were eligible for at least 11 months during both the measurement year and the year prior to it. The numerator was composed of children who had a visit with a primary care practitioner within the measurement year and the year before.

Results

The rates of primary care visits by age group and plan are shown in Tables 8 and 9. The overall rates varied by plan from 67% to 84% in 2003, but were more consistent for all plans during 2004 (83–89%). Rates were highest in IHS, Coventry and MediPASS both years for the 12–24-month-old children. Rates varied significantly between years for the HMOs, increasing from 2003 to 2004. The rates for MediPASS did not change much. Though it is difficult to explain this difference for all of the HMOs, it is likely that the changes in numbers of eligibles affected John Deere. In SFY 2003, John Deere had 11,122 children who were eligible for at least 11 months, but the number decreased greatly in SFY 2004 to 3,290. The number of children eligible for at least 11 months in Iowa Health Solutions (7,208 in SFY 2003 and 7,202 in SFY 2004) and Coventry (805 in SFY 2003 and 776 in SFY 2004) remained stable during this two-year period. MediPASS rates remained stable and relatively high over the two years, with at least 80% of children having access to primary care providers and, at the highest levels, with over 90% having access.

Table 8. Rates of primary care visits by age group and managed care plan, SFY 2003

Age group	John Deere	Coventry	IHS	MediPASS
12–24 months	71.9%	91.0%	90.0%	92.8%
25 months–6 years	59.2%	69.7%	73.2%	83.6%
7–11 years	75.2%	72.7%	76.9%	82.7%
12–19 years	72.3%	77.1%	74.5%	82.1%
Total	66.6%	73.9%	76.2%	84.1%

Table 9. Rates of primary care visits by age group and managed care plan, SFY 2004

Age group	John Deere	Coventry	IHS	MediPASS
12–24 months	98.1%	100.0%	97.6%	92.4%
25 months–6 years	87.1%	85.7%	88.7%	83.0%
7–11 years	86.0%	88.8%	86.9%	82.6%
12–19 years	89.7%	88.0%	84.6%	81.4%
Total	88.6%	88.3%	88.6%	83.4%

Use of appropriate medications for people with asthma

Specifications

This is the only measure that spans across children and adults, providing an opportunity to determine whether children are more or less likely to receive appropriate care. All people aged 5–56 who were eligible for at least 11 months in both the measurement year and the year prior to it were included in the measure, as outlined in the HEDIS protocol. Three age groups were evaluated: 5–9 years of age, 10–17 years of age, and 18–56 years of age. For the asthma measure, HEDIS also requires a combined rate, including all persons in the three age groups.

To be included in the denominator for this measure, a person had to have *persistent* asthma. A person is defined as having persistent asthma if they meet any of the criteria listed below during the measurement year or the year before, combined:

i) received four prescriptions for an asthma medication (list specified by HEDIS),[3]
ii) had at least four ambulatory visits with asthma as one of the diagnosis codes and at least two prescriptions for an asthma medication,
iii) had at least one inpatient stay or emergency room visit with a primary diagnosis code of asthma.

People were included in the numerator if they had been prescribed a long-term control medication within the measurement year (list specified by HEDIS).[4] These medications include inhaled corticosteroids, nedocromil, cromolyn sodium, leukotriene modifiers, and methylxanthines.

Results

Rates of persistent asthma are fairly consistent across ages and plans. They ranged from 2.3% in John Deere enrollees aged 10–17 years in SFY 2003 to 5.3% in MediPASS enrollees aged 18–56 years. More variance is seen in SFY 2004. Rates of persistent asthma ranged from 1.6% in children aged 10–17 years in Coventry to 6.9% for adults in Coventry. In looking at the combined rates across all age groups, John Deere has the lowest rate of persistent asthma, while MediPASS has the highest rate for SFY 2003.

Table 10. Rate and number of persistent asthma by age group and managed care plan, SFY 2003

Age group (years)	John Deere	Coventry	IHS	MediPASS	All managed care plans
5–9	3.0% (72)	3.0% (6)	3.7% (52)	4.4% (178)	4.0% (308)
10–17	2.3% (66)	3.6% (8)	3.4% (59)	3.6% (203)	3.2% (336)
18–56	4.1% (74)	4.8% (7)	3.0% (37)	5.3% (137)	3.9% (255)
Combined	3.0% (212)	3.7% (21)	3.4% (143)	4.2% (518)	3.7% (890)

[3] List of asthma medications for the HEDIS measure is available at: www.ncqa.org.
[4] List of long-term control medications for the HEDIS measure is available at: www.ncqa.org.

Table 11. Rate and number of persistent asthma by age group and managed care plan, SFY 2004

Age group (years)	John Deere	Coventry	IHS	MediPASS	All managed care plans
5–9	3.9% (32)	2.3% (4)	3.8% (60)	2.8% (144)	3.1% (240)
10–17	3.2% (34)	1.6% (4)	3.6% (69)	2.8% (201)	3.0% (308)
18–56	3.6% (22)	6.9% (10)	4.0% (47)	4.1% (127)	4.1% (206)
Combined	3.5% (33)	3.1% (13)	3.8% (176)	3.1% (472)	3.3% (754)

Rates of appropriate use of medication for persistent asthma varied significantly by plan in SFY 2003 and SFY 2004. The proportion receiving appropriate medications for asthma was lowest for people in Coventry in all age categories during SFY 2003, but was relatively consistent for people of all ages in John Deere and MediPASS (about 55%). Use of appropriate medications varied widely for Iowa Health Solutions with only 41% of adults receiving appropriate medications and over 60% of children aged 10–17 years receiving appropriate medications.

Table 12. Use of appropriate medications for people with asthma by age and managed care plan, SFY 2003

Age group (years)	John Deere	Coventry	IHS	MediPASS	All managed care plans
5–9	55.6%	33.3%	55.8%	58.4%	56.8%
10–17	51.5%	25.0%	62.7%	57.1%	56.3%
18–56	55.4%	42.9%	40.5%	56.9%	53.7%
Combined	54.2%	33.3%	54.7%	57.5%	55.7%

Results for SFY 2004 presented a somewhat different pattern than SFY 2003. Coventry had even wider variance for this measure in SFY 2004, with 20% of adults receiving appropriate medications and 75% of children aged 10–17 years receiving appropriate medications. Use of appropriate medications increased substantially for children aged 5–9 years in MediPASS, rising from 58% in SFY 2003 to 80% in SFY 2004.

Table 13. Use of appropriate medications for people with asthma by age and managed care plan, SFY 2004

Age group (years)	John Deere	Coventry	IHS	MediPASS	All managed care plans
5–9	40.6%	50.0%	63.3%	79.9%	70.0%
10–17	52.9%	75.0%	58.0%	70.6%	65.9%
18–56	50.0%	20.0%	55.3%	55.1%	52.9%
Combined	47.8%	38.9%	57.8%	69.3%	63.7%

Adult's access to preventive/ambulatory health services

Specifications

All adults age 20–64 who were eligible for at least 11 months were included in this measure. Two age groups were used: 20–44 years of age and 45–64 years of age. Adults were included in the numerator of the rate if they had a HEDIS-specified procedure code or diagnosis code indicating a qualifying ambulatory care visit.

Results

The rates for adult ambulatory care were relatively consistent across age groups and years for Iowa Health Solutions and MediPASS (about 85%). For both years, Coventry had the highest proportion of adults aged 20–44 with an ambulatory visit (89%), however, Coventry had lower rates for adults aged 45–64, especially in SFY 2003 (71%). John Deere had low rates for adult ambulatory care in SFY 2003, with 70% of adults aged 20–44 and 64% of adults aged 45–64 having a record of an ambulatory care visit. These rates improved in SFY 2004 to 85% and 79%, respectively, approximating more closely the rates seen in the other managed care options.

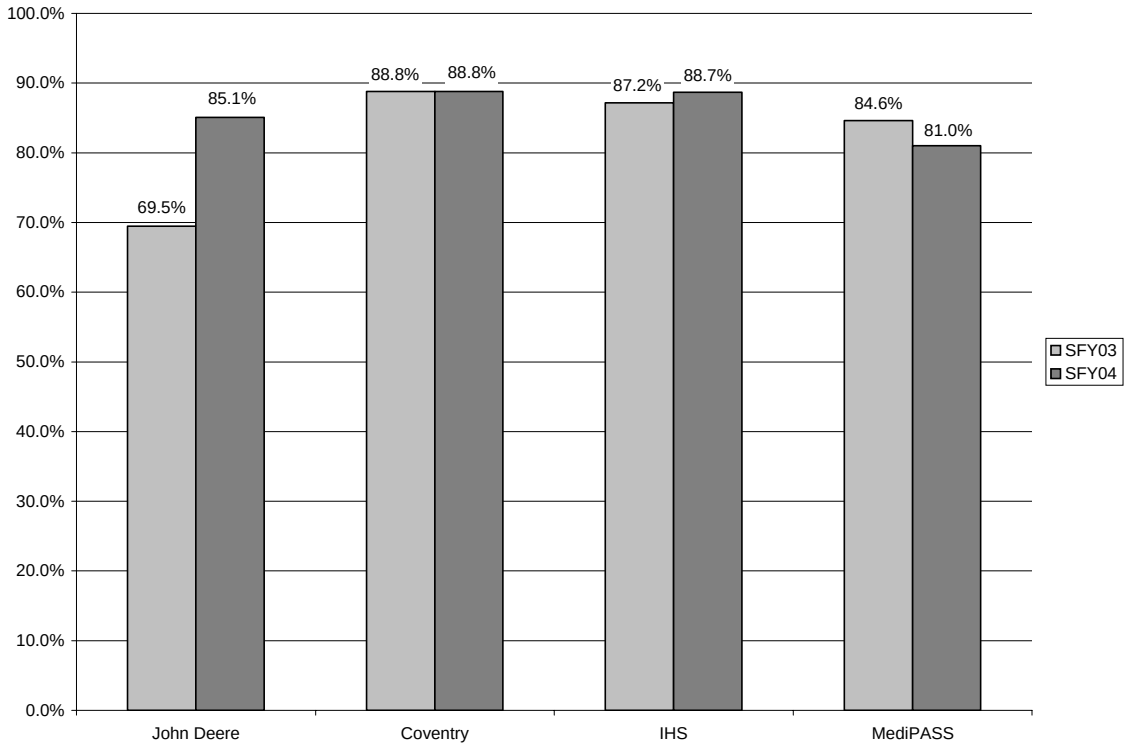

Figure 7. Proportion of adults 20–44 years old with an ambulatory visit by managed care plan and year

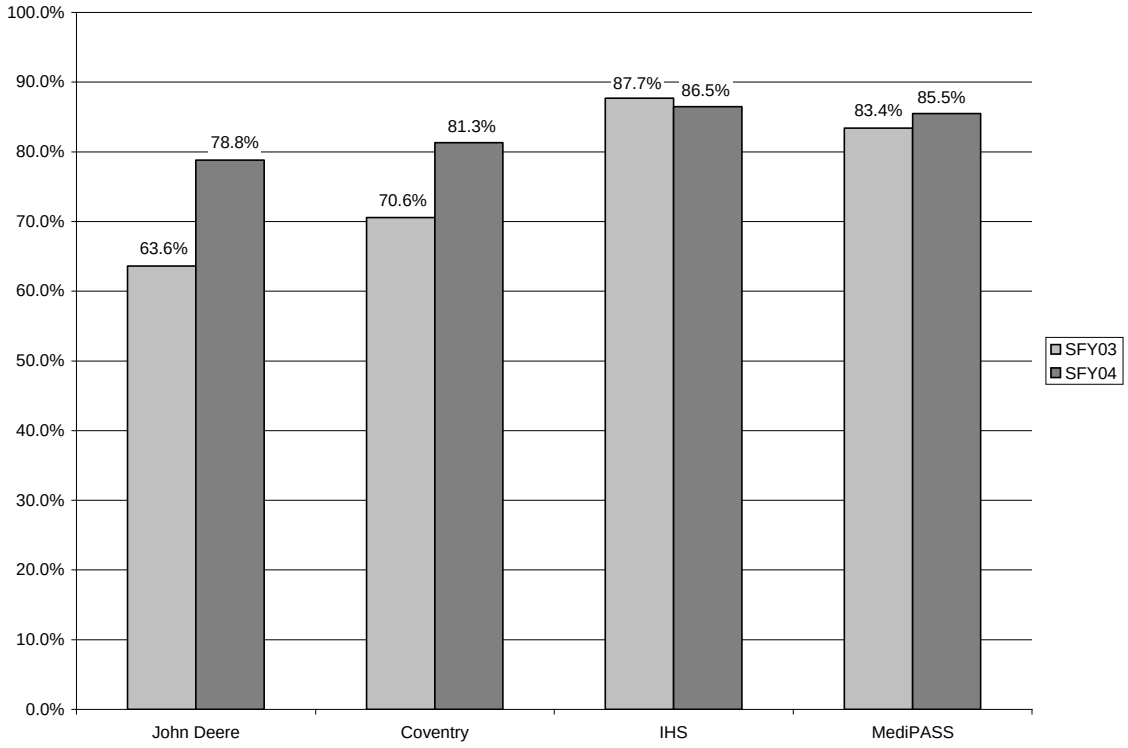

Figure 8. Proportion of adults 45–64 years old with an ambulatory visit by managed care plan and year

Prenatal and postpartum care

This measure indicates whether mothers received appropriate prenatal care and postpartum care based on the timing of these visits.

Specifications

All live births for which the mother was continuously enrolled between 43 days prior to the delivery and 56 days after the delivery are included within the prenatal and postpartum care outcome. For the purposes of this outcome, the first trimester was defined as the period 176 to 280 days prior to the estimated delivery date (EDD). For the prenatal outcome, live birth deliveries were divided into three groups according to the mother's enrollment history:

i) those who were continuously enrolled for the duration of the first trimester;

ii) those whose last enrollment segment commenced on or between 219 and 279 days prior to the EDD; and

iii) those who were not continuously eligible for the duration of the first trimester whose last enrollment segment commenced less than 219 days prior to the EDD.

Mothers in groups (i) and (ii) above were defined as having received early prenatal care, if prenatal care was received during the first trimester. Mothers in group (iii) were defined as having received early prenatal care if prenatal care was received within 42 days of the commencement of their last enrollment segment. These groups were further partitioned to identify cases in which the mother was indicated to have received bundled prenatal care and those in which no such indication was found.

Mothers were defined as having received timely postpartum care if they had a postpartum visit on or between 21 and 56 days after delivery. Rates of postpartum care have been reported separately for mothers for which bundled postnatal care was indicated and for those who had no such indication.

Results

The overall rate of early prenatal care was 63% in SFY 2003 and 62% in SFY 2004. Rates of early prenatal care were far lower for women without bundled prenatal care than for women with it. Among those without bundled prenatal care, rates were lowest among women whose last enrollment segment did not commence until less than 219 days prior to their EDD, and highest among women who were continuously enrolled for their first trimester. Among women with bundled prenatal care, rates ranged from about 61% for women whose last enrollment segment did not commence until less than 219 days prior to their EDD, up to approximately 80% for women who were continuously enrolled for their first trimester or whose last enrollment segment commenced early in the first trimester.

Women continuously enrolled for the first trimester and women whose last enrollment segment commenced early in the first trimester had the highest overall rates of early prenatal care, 73% and 72%, respectively, in SFY 2003 (71% and 70%, respectively, for SFY 2004). This is compared to a rate of 50% among women whose last enrollment segment did not commence until less than 219 days prior to the EDD.

Table 14. Rates of early prenatal care, SFY 2003

Mother's enrollment history	Prenatal care not bundled	Bundled prenatal care	Total
Continuously enrolled for first trimester	34.4% 84/244	80.3% 1068/1330	73.2% 1152/1574
Last enrollment segment commenced on or between 219 and 279 days prior to the EDD	28.0% 118/421	80.7% 1631/2021	71.6% 1749/2442
Last enrollment segment commenced less than 219 days prior to the EDD	14.9% 112/750	60.9% 1379/2266	49.4% 1491/3016
Total	22.2% 314/1415	72.6% 4078/5617	62.5% 4392/7032

Table 15. Rates of early prenatal care, SFY 2004

Mother's enrollment history	Prenatal care not bundled	Bundled prenatal care	Total
Continuously enrolled for first trimester	37.9% 119/314	77.4% 1312/1696	71.2% 1431/2010
Last enrollment segment commenced on or between 219 and 279 days prior to the EDD	22.2% 124/559	79.8% 2155/2701	69.9% 2279/3260
Last enrollment segment commenced less than 219 days prior to the EDD	11.9% 110/921	62.2% 1714/2756	49.6% 1824/3677
Total	19.7% 353/1794	72.4% 5181/7153	61.9% 5534/8947

The overall rate of postnatal care was 34% in SFY 2003 and 31% in SFY 2004. Rates of postnatal care ranged from 28% for both years among women without bundled postnatal care to 35% for those with bundled postnatal care in SFY 2003 and 32% in SFY 2004.

Table 16. Rates of postnatal care by year

Postnatal care	Postnatal care not bundled	Bundled postnatal care	Total
SFY 2003	28.1% 435/1547	35.3% 1936/5485	33.7% 2371/7032
SFY 2004	28.1% 573/2038	31.8% 2197/6909	31.0% 2770/8947

Across measurement years the prenatal care rates were 60–65% for John Deere, Iowa Health Solutions and MediPASS, and 53–56% for Coventry. In SFY 2003, postpartum care rates were highest for Iowa Health Solutions (40%) and lowest for MediPASS (33%). For SFY 2004, the rate for Iowa Health Solutions had dropped to just 17%. A possible explanation for this is that the health plan that a mother is identified with is the plan in which she was enrolled at the time of delivery. It is therefore possible that in SFY 2004 some women transferred to Iowa Health Solutions from John Deere ahead of John Deere's withdrawal from the program. Hence, some of these women may have received prenatal care with John Deere then subsequently transferred to Iowa Health Solutions, which covered the delivery but did not ultimately provide postpartum care.

Table 17. Prenatal care rates by managed care plan and year

State fiscal year	John Deere	Coventry	IHS	MediPASS
2003	60.4%	53.3%	63.5%	65.2%
2004	63.0%	55.5%	63.0%	63.8%

Table 18. Postpartum care rates by managed care plan and year

State fiscal year	John Deere	Coventry	IHS	MediPASS
2003	36.1%	36.7%	40.3%	32.7%
2004	35.8%	40.9%	17.1%	35.0%

Comprehensive diabetes care

Specifications

The HEDIS comprehensive diabetes care measure is very complex. It includes rates for provision of the Hemoglobin A1c, performance of retinal exam, provision of LDL-C screening, level of LDL-C control, level of Hemoglobin A1c indicated control, and monitoring of kidney disease. For the purposes of this report we chose to concentrate our efforts on determining the proportion of people with diabetes who had received a Hemoglobin A1c test.

Adults aged 18–64 years who were eligible for at least 11 months in both the measurement year and the year prior to it with diabetes were included in the denominator for this measure. A person was considered to have diabetes if they had at least one prescription filled for oral hypoglycemics or insulin during the measurement year or the year before the measurement year or had at least two ambulatory care visits with a diagnosis of diabetes during the measurement year or the year before or had at least one inpatient stay of emergency room visit with a primary diagnosis of diabetes. Adults were included in the numerator if they had at least one Hemoglobin A1c test during the measurement year.

Results

Within the managed care program there are very few people with diabetes. In all, 486 people who were eligible for at least 11 months were found to have diabetes during SFY 2003, while 347 were found in SFY 2004. MediPASS had the lowest rate (28.7%) of Hemoglobin A1c testing in SFY 2003 and Iowa Health Solutions had the lowest rate (20.0%) in SFY 2004.

Table 19. Rates of Hemoglobin A1c testing in people 18–64 years old by managed care plan and year

State fiscal year	John Deere	Coventry	IHS	MediPASS
2003	51.3% (77/150)	46.2% (6/13)	48.2% (40/83)	28.7% (69/240)
2004	84.8% (28/33)	90.0% (9/10)	20.0% (17/85)	27.9% (61/219)

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

Measure	John Deere	Coventry	IHS	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 third year of life	56.1%	89.4%	73.4%	77.6%
Visit in the fourth year of life	62.7%	85.3%	78.7%	82.8%
Visit in the fifth year of life	58.8%	73.6%	75.9%	81.7%
Visit in the sixth year of life	37.8%	55.7%	43.3%	61.2%
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	60.4%	53.3%	63.5%	65.2%
Postpartum care	36.1%	36.7%	40.3%	32.7%
Comprehensive diabetes care				
Hemoglobin A1c	51.3%	46.2%	48.2%	28.7%

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

Measure	John Deere	Coventry	IHS	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 third year of life	53.2%	72.5%	64.3%	76.4%
Visit in the fourth year of life	65.4%	80.2%	70.3%	80.8%
Visit in the fifth year of life	64.6%	82.8%	63.8%	80.8%
Visit in the sixth year of life	38.2%	20.1%	44.3%	63.5%
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	35.8%	40.9%	17.1%	35.0%
Comprehensive diabetes care				
Hemoglobin A1c	84.8%	90.0%	20.0%	27.9%

Appendix C: 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 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: Four rates are calculated, one for each year of age.

Annual dental visit

Denominator: Children 1–18 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: 1–3 years old, 4–6 years old, 7–11 years old, 12–15 years old, 16–18 years old, and 1–18 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, 99499, 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 the year *prior* to the measurement year.

i) 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).
ii) At least one hospital discharge defined by one of the procedure codes: 99221-99223, 99231-99233, 99238, 99239, 99251-99255, 99261-99263, 99291, 99292 or one of the revenue codes: 100-169, 200-229, 987 and with a principal diagnosis of asthma (ICD-9-CM 493).
iii) Have at least 4 outpatient/physician visits defined by one of the procedure codes: 99201-99205, 99211-99215, 99217-99220, 99241-99245, 99271-99275 or one of the revenue codes: 456, 510, 515-517, 520, 521, 523, 526, 760-769, 770, 779, 982, 983, 988 and with any diagnosis of asthma (ICD-9-CM 493).
iv) 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, 51x, 52x, 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: V27.0, V27.2, V27.3, V27.5, V27.6, V30-V37, V39, 74.0-74.2, 74.4, 74.99, 640.x1, 641.x1, 642.x1, 643.x1, 644.21, 645.11, 646.x1, 646.12, 646.22, 646.42, 646.52, 646.62, 646.82, 647.x1, 674.x2, 648.x1, 648.x2, 651.x1, 652.x1, 653.x1, 654.x1, 654.02, 654.12, 654.32, 654.42, 654.52, 654.62, 654.72, 654.82, 654.92, 655.x1, 656.01, 656.11, 656.21, 656.31, 656.51, 656.61, 656.71, 656.81, 656.91, 657.01, 658.x1, 659.x1, 660.x1, 661.x1, 662.x, 663.x1, 664.x1, 665.01, 665.11, 665.22, 665.31, 665.41, 665.51, 665.61, 665.71, 665.81, 665.82, 665.91, 665.92, 666.x2, 667.x2, 668.x1, 668.x2, 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, 669.81, 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.x1, 673.x2, 674.01, 674.x2, 675.x1, 675.x2, 676.x1, 676.x2 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 656.4, 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 prental 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.

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, 99291, 99292, 99356, 99357 or one of the revenue codes: 100-169, 200-229, 720-729, 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 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: 490-539, 550-599, 650-669, 760-779, 820-859, 880-889, 920-929, 940-949, 960-969, 982-986, 988, 989 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 medicination dispensing event. A list of insulin and oral hypoglycemics 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.