Colorado Medicaid HEDIS® 2008 Results
STATEWIDE AGGREGATE REPORT

November 2008

This report was produced by Health Services Advisory Group, Inc. for the Colorado Department of Health Care Policy & Financing.

HSAG HEALTH SERVICES ADVISORY GROUP

1600 East Northern Avenue, Suite 100 ◆ Phoenix, AZ 85020

Phone 602.264.6382 ◆ Fax 602.241.0757

HSAG HEALTH SERVICES ADVISORY GROUP

CONTENTS

Introduction

During 2007, the Colorado Department of Health Care Policy & Financing (the Department) offered managed care services to Colorado Medicaid members through two managed care organizations (MCOs), the Department-run managed care program (Primary Care Physicians Program [PCPP]), and the fee-for-service (FFS) program. To evaluate performance levels, the Department implemented a system to provide an objective, comparative review of plan quality-of-care outcomes and performance measures. One component of the evaluation system was based on the Healthcare Effectiveness Data and Information Set (HEDIS®). The Department selected 11 HEDIS measures from the standard Medicaid HEDIS reporting set as the measures to evaluate performance by the plans. These 11 measures are composed of 43 distinct rates.

The Department expects its contracted plans to support health care claims systems, membership and provider files, and hardware/software management tools that facilitate accurate and reliable reporting of HEDIS measures. The Department has contracted with Health Services Advisory Group, Inc. (HSAG), to analyze Colorado Medicaid HEDIS results objectively and evaluate each plan's current performance level relative to national Medicaid percentiles.

Performance levels for Colorado Medicaid plans have been established for all of the measures. The performance levels have been set at specific, attainable rates and are based on national percentiles. This standardization allows for comparison to the performance levels. Plans meeting the high performance level (HPL) exhibit rates among the top in the nation. The low performance level (LPL) identifies plans in the greatest need of improvement. Details are shown in Section 2, "How to Get the Most From This Report."

HSAG has examined the measures along four different dimensions of care: (1) Pediatric Care, (2) Access to Care, (3) Living With Illness, and (4) Utilization of Services. This approach to the analysis is designed to encourage consideration of the measures as a whole rather than in isolation, and to think about the strategic and tactical changes required to improve overall performance.

This report analyzes Colorado Medicaid HEDIS results in several ways. For each of the four dimensions of care:

- A weighted average comparison presents the Colorado Medicaid 2008 results relative to the 2007 Colorado Medicaid weighted averages and the national HEDIS 2007 Medicaid 50th percentiles where applicable.
- A performance profile analysis discusses the overall Colorado Medicaid 2008 results and presents a summary of plan performance relative to the Colorado Medicaid performance levels.
- A plan ranking analysis provides a more detailed comparison, showing results relative to the Colorado Medicaid performance levels.

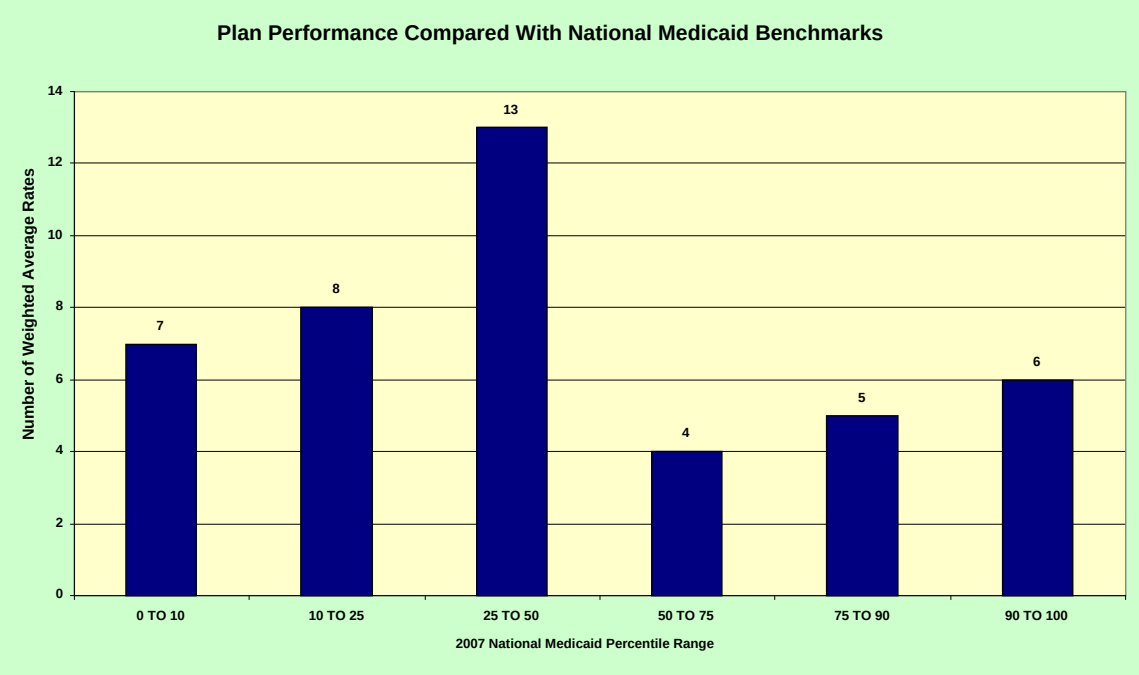
HEDIS® is a registered trademark of the National Committee for Quality Assurance (NCQA).

In addition, Section 7, HEDIS Reporting Capabilities, provides a summary of the HEDIS data collection processes used by the Colorado Medicaid plans and audit findings reported in each plan's Interactive Data Submission System (IDSS) in relation to NCQA's information system (IS) standards.

Key Findings and Recommendations

This is the first year that HSAG has examined the Colorado Medicaid HEDIS results for aggregate data reporting. Figure 1-1 shows Colorado Medicaid plans' performance compared with national Medicaid percentiles. The columns represent the number of Colorado Medicaid weighted averages falling into the percentile grouping listed on the horizontal axis. Of the 43 weighted averages for which national percentile data were available, 7 (or 16 percent) fell between the national Medicaid 0 and 10th percentiles, 8 (or 19 percent) fell between the 10th and 25th percentiles, 13 (or 30 percent) fell between the 25th and 50th percentiles, 4 (or 9 percent) fell between the 50th and 75th percentiles, 5 (or 12 percent) fell between the 75th and 90th percentiles, and 6 (or 14 percent) ranked above the 90th percentile.

Figure 1-1—Colorado Medicaid HEDIS 2008:
Plan Performance Compared With National Medicaid Percentiles



Seventeen of the 43 weighted averages had data from 2007 available for comparison purposes. When comparing the 2008 weighted averages to the 2007 weighted averages, only 2 of the 17 weighted averages declined from the previous year, and neither of these decreases were statistically significant. The declines were seen in measures in the Pediatric Care dimension: *Well-Child Visits in the First Fifteen Months of Life—Zero Visits* and *Adolescent Well-Care Visits*.

The remaining 15 weighted averages improved, with statistically significant increases for 12 of these averages. The measures that showed statistically significant improvement were: *Childhood Immunization Status* (all 7 antigens and the 2 combinations), *Well-Child Visits in the First Fifteen Months of Life—Six or More Visits*; *Well-Child Visits in the Third, Fourth, Fifth, and Sixth Years of Life*; and *Prenatal and Postpartum Care—Postpartum Care*.

In the Pediatric Care dimension, all of the measures' rates except two showed improvement compared to the 2007 Colorado Medicaid weighted average; however, none of the 2008 weighted averages ranked better than the national HEDIS 2007 Medicaid 50th percentile.

In the Access to Care section, only the *Prenatal and Postpartum Care* rates had 2007 weighted averages for comparison. Both of these rates increased from 2007 to 2008; however, neither of the rates performed above the national HEDIS 2007 Medicaid 50th percentile. The *Postpartum Care* rate had a statistically significant increase compared to the 2007 rate. The rates for *Adults' Access to Preventive/Ambulatory Health Services* were all below the national HEDIS 2007 Medicaid 50th percentile.

The 2008 weighted average rates for the *Cholesterol Management for Patients With Cardiovascular Conditions* measure in the Living With Illness dimension both increased compared to the 2007 weighted averages. These rates, however, were still below the national HEDIS 2007 Medicaid 50th percentile. Previous years' data were not available for the *Annual Monitoring for Patients on Persistent Medications*, but the *Total* rate for all medications was only 0.4 percentage points below the national HEDIS 2007 Medicaid 50th percentile, and was not lower than the national average by a statistically significant degree.

The Department did not require that the plans report any of the measures in the Utilization of Services dimension in 2007; therefore, the 2008 rates were only compared to national benchmarks. For the *Ambulatory Care* measure, two of the 2008 Medicaid averages performed above the national HEDIS 2007 Medicaid 50th percentile and two of the Medicaid averages performed below it. Eleven of the 12 Medicaid averages for the *Inpatient Utilization—General Hospital/Acute Care* ranked higher than the national HEDIS 2007 Medicaid 50th percentile. *Maternity Average Length of Stay* was the only rate that was below the national average of 2.6 days. The report presents rates for measures in the Utilization of Services section for informational purposes only. The rates do not indicate the quality, access, or timeliness of care and services. Readers should exercise caution when connecting these data to the efficacy of the program because many factors influence these data.

The results in all of the dimensions of care indicate that the Colorado Medicaid plans have several areas to focus improvement efforts. Initiatives that the managed care plans (two MCOs and PCPP) could consider include implementing disease management programs for prenatal and postpartum care and cardiovascular disease to supplement the data that are received from providers. Other interventions for the managed care plans to consider include reminder mailings or telephone calls to both providers and members for services due, incentives offered to both members and providers when services are rendered, and provider report cards and bonuses based on performance. The managed care plans should also look at assessing data completeness, focusing on the potential for missing service data due to capitation or claims that providers may not bother to submit if they perceive that reimbursement will be low. Any efforts to improve the submission of encounter data

could improve all of the HEDIS rates as well as reduce the burden of medical record review. The plans should also focus on expected claims or encounter volumes by provider type to help identify missing data.

Based on the HEDIS results, the FFS program could evaluate missed opportunities, assess the adequacy of provider and provider specialty networks in meeting the needs of their members, and identify barriers to accessing care and barriers to members complying with appointments for preventive care.

Limitations

The reported rates and weighted averages for the Colorado MCOs and FFS population may have the following limitations:

- It is estimated that almost 30 percent of the Medicaid population receives care in a federally qualified health center (FQHC). The Department pays the FQHCs on a per encounter basis. There are no diagnostic or CPT codes related to the encounter data, so the data are incomplete for many of the FQHCs. The FQHCs may underreport rates for well-child visits, immunizations, and some of the other services they render. These missing data would most likely impact the FFS and PCPP rates.
- The HEDIS measures presented in this report may not be the entire set of HEDIS measures reported to NCQA by the plans. The Department specified which measures should be included in this report and used for comparative purposes across the plans.
- In Colorado, managed care plans assign members a provider, which encourages members to access care from the same source at each visit. The FFS program, however, does not assign members a provider, leading members to access care from a different source at each visit. The assignment of a provider can lead to higher rates due to better compliance and follow-up by providers who see members on a regular basis.
- In general, plans could choose to report some measures using the hybrid method if NCQA allowed this method. Plans that opted to report rates using the hybrid method were able to supplement administrative rates with medical record data and identify missing encounter or claims data, unlike plans that reported only administrative data.
- Some of the measures presented in this report may not have adequate trending information either because the plan had not reported the measure in the past or because the measure had new/major changes to the specifications.

Performance Level Analysis

Table 1-1 through Table 1-8 show the performance summary results for all Colorado plans for each dimension of care. Results were calculated using a scoring algorithm based on individual plan performance relative to the HPL, LPL, and national HEDIS 2007 Medicaid 50th percentile.

For each plan, points were summed across all measures in the dimension and then averaged by the number of measures in that dimension. Decimals of 0.5 or greater were rounded up to the next whole number. For measures that had an audit designation of *Report* with a rationale of *Not Applicable* (*NA*) rates were not included since the denominator was less than 30 cases.

These results are presented in this report using a star system assigned as follows:

- Three stars (★★★) for performance at or above the HPL.
- Two stars (★★) for performance above the LPL but below the HPL.
- One star (★) for performance at or below the LPL or for *Not Report* (*NR*) designations.

Not Applicable designations are shown as "*NA*."

Summary of Results

Pediatric Care

Of the 13 Pediatric Care measures that had weighed average rates for 2007, 11 of them improved in 2008. All *Childhood Immunization Status* rates showed statistically significant improvement, as did the *Well-Child Visits in the First 15 Months of Life—Six or More Visits* and *Well-Child Visits in the Third, Fourth, Fifth, and Sixth Years of Life Visits* rates.

None of the Pediatric Care measures' rates performed better than the national HEDIS 2007 Medicaid 50th percentile.

Table 1-1—Colorado Medicaid HEDIS 2008 Performance Summary: Pediatric Care							
Plan Name	Childhood Immunization DTaP/DTP	Childhood Immunization HEP	Childhood Immunization HIB	Childhood Immunization MMR	Childhood Immunization IPV	Childhood Immunization PC	Childhood Immunization VZV
DHMC	★★	★★★	★★	★★	★★★	★★★	★★
RMHP	★★	★★	★★	★★	★★★	★★★	★★
PCPP	★★	★★	★★	★★	★★	★★	★★
FFS	★	★	★	★	★★	★★	★

This symbol		shows this performance level
3 stars	★★★	≥ HPL
2 stars	★★	> LPL and < HPL
1 star	★	≤ LPL, or for *Not Report (NR)*

Table 1-2—Colorado Medicaid HEDIS 2006 Performance Summary: Pediatric Care								
Plan Name	Childhood Immunization Combo 2	Childhood Immunization Combo 3	Well-Child 1st 15 Mos, 0 Visits	Well-Child 1st 15 Mos, 6+ Visits	Well-Child 3rd–6th Years of Life	Adolescent Well-Care Visits	Follow-up Care for Children Prescribed ADHD Medication —Initiation	Follow-up Care for Children Prescribed ADHD Medication—Continuation
DHMC	★★★	★★★	★★	★★	★	★	★	NA
RMHP	★★	★★★	★★	★	★	★★	★	★
PCPP	★★	★★	★	★★	★	★	★★	★★
FFS	★	★★	★	★	★	★	★★	★★

This symbol		shows this performance level
3 stars	★★★	≥ HPL
2 stars	★★	> LPL and < HPL
1 star	★	≤ LPL, or for *Not Report (NR)*
"NA" means "Not Applicable."		

Access to Care

All of the rates related to Access to Care ranked below the national HEDIS 2007 Medicaid 50th percentile, with all of the rates for the *Adults' Access to Preventive/Ambulatory Health Services* measure ranking at or below the 10th percentile. The *Prenatal and Postpartum Care* rates both improved compared to the 2007 rates, and the *Postpartum Care* rate's improvement was statistically significant.

Table 1-3—Colorado Medicaid HEDIS 2008 Performance Summary: Access to Care

Plan Name	Timeliness of Prenatal Care	Postpartum Care	Adults' Access 20–44 Yrs	Adults' Access 45–64 Yrs	Adults' Access 65 Yrs & Older
DHMC	★★	★★	★	★	★
RMHP	★★★	★★★	★★	★★	★★★
PCPP	★	★★	★	★	★
FFS	★	★	★	★	★

This symbol		shows this performance level
3 stars	★★★	≥ HPL
2 stars	★★	> LPL and < HPL
1 star	★	≤ LPL, or for *Not Report (NR)*

Living With Illness

In the Living With Illness dimension, both rates for the *Cholesterol Management for Patients With Cardiovascular Conditions* improved compared to the 2007 rates. Performance compared to the national average was mixed among these measures, with two of the medication rates for the *Annual Monitoring for Patients on Persistent Medications* performing above the national HEDIS 2007 Medicaid 50th percentile, while all of the other rates ranked below it.

Table 1-4—Colorado Medicaid HEDIS 2008 Performance Summary: Living With Illness

	Cholesterol Management for People With Cardiovascular Conditions		Annual Monitoring for Patients on Persistent Medications				
Plan Name	<100 LDL-C Level	LDL-C Screening	ACE/ARB	Anticonvul-sants	Digoxin	Diuretics	Total
DHMC	★★	★	★★	★	NA	★★	★★
RMHP	★★★	★★	★	★★	★	★	★
PCPP	★	★	★★	★★	★★	★★	★★
FFS	★	★★	★★	★★	★★	★★	★★

This symbol		shows this performance level
3 stars	★★★	≥ HPL
2 stars	★★	> LPL and < HPL
1 star	★	≤ LPL, or for *Not Report (NR)*

Utilization of Services

The measures in the Utilization of Services dimension did not have 2007 data for comparison purposes; therefore, the following tables present only the plans' performance relative to national performance levels. The following rates for discharges and days are presented in member months (MM).

Table 1-5—Colorado Medicaid HEDIS 2008 Performance Summary: Inpatient Utilization (Discharges per 1,000 MM)

Plan Name	Total Inpatient— Discharges per 1,000 MM	Medicine— Discharges per 1,000 MM	Surgery— Discharges per 1,000 MM	Maternity— Discharges per 1,000 MM
DHMC	★★	★★★	★★	★★
RMHP	★★★	★★★	★★★	★★★
PCPP	★★	★★	★★	★
FFS	★★★	★★	★★	★★★

Table 1-6—Colorado Medicaid HEDIS 2008 Performance Summary: Inpatient Utilization (Days per 1,000 MM)

Plan Name	Total Inpatient— Days per 1,000 MM	Medicine— Days per 1,000 MM	Surgery— Days per 1,000 MM	Maternity— Days per 1,000 MM
DHMC	★★	★★★	★★	★★
RMHP	★★★	★★	★★★	★★
PCPP	★★	★★★	★★★	★
FFS	★★★	★★	★★★	★★★

Table 1-7—Colorado Medicaid HEDIS 2008 Performance Summary: Inpatient Utilization (Average Length of Stay [LOS])

Plan Name	Total Inpatient — Average LOS	Medicine— Average LOS	Surgery— Average LOS	Maternity— Average LOS
DHMC	★★	★★	★★	★★
RMHP	★	★★	★★	★
PCPP	★★★	★★★	★★★	★★
FFS	★★	★★	★★★	★

This symbol		shows this performance level
3 stars	★★★	≥ HPL
2 stars	★★	> LPL and < HPL
1 star	★	≤ LPL, or for *Not Report (NR)*

Table 1-8—Colorado Medicaid HEDIS 2008 Performance Summary: Ambulatory Care				
Plan Name	Outpatient Visits per 1,000 MM	Emergency Department Visits per 1,000 MM	Ambulatory Procedures per 1,000 MM	Observation Room Stays per 1,000 MM
DHMC	★	★	★	★★
RMHP	★★★	★★	★★★	★★
PCPP	★★	★★	★★	★★
FFS	★★	★★	★★	★★

This symbol		shows this performance level
3 stars	★★★	≥ HPL
2 stars	★★	> LPL and < HPL
1 star	★	≤ LPL, or for *Not Report (NR)*

2. How to Get the Most From This Report

Summary of Colorado Medicaid HEDIS 2008 Measures

HEDIS is a nationally recognized, standard set of measures used for measuring quality of care for both publicly funded and commercial plans. The Department selected 11 HEDIS measures from the standard Medicaid set divided into 43 distinct rates shown in Table 2-1. The four Colorado Medicaid health programs were required to report these measures in 2008.

Table 2-1—Colorado Medicaid HEDIS 2008 Measures

Standard HEDIS 2008 Measures	2008 Measures
1. *Childhood Immunization Status*	1. *Childhood Immunization Status—DTaP* 2. *Childhood Immunization Status—IPV* 3. *Childhood Immunization Status—MMR* 4. *Childhood Immunization Status—HiB* 5. *Childhood Immunization Status—Hepatitis B* 6. *Childhood Immunization Status—VZV* 7. *Childhood Immunization Status—Pneumococcal conjugate* 8. *Childhood Immunization Status—Combination #2* 9. *Childhood Immunization Status—Combination #3*
2. *Well-Child Visits in the First 15 Months of Life*	10. *Well-Child Visits in the First 15 Months of Life—Zero Visits* 11. *Well-Child Visits in the First 15 Months of Life—Six or More Visits*
3. *Well-Child Visits in the Third, Fourth, Fifth, and Sixth Years of Life*	12. *Well-Child Visits in the Third, Fourth, Fifth, and Sixth Years of Life*
4. *Adolescent Well-Care Visits*	13. *Adolescent Well-Care Visits*
5. *Follow-up Care for Children Prescribed ADHD Medication*	14. *Follow-up Care for Children Prescribed ADHD Medication—Initiation* 15. *Follow-up Care for Children Prescribed ADHD Medication—Continuation*
6. *Prenatal and Postpartum Care*	16. *Prenatal and Postpartum Care—Timeliness of Prenatal Care* 17. *Prenatal and Postpartum Care—Postpartum Care*
7. *Adults' Access to Preventive/Ambulatory Health Services*	18. *Adults' Access to Preventive/Ambulatory Health Services—Ages 20–44 Years* 19. *Adults' Access to Preventive/Ambulatory Health Services—Ages 45–64 Years* 20. *Adults' Access to Preventive/Ambulatory Health Services—Ages 65 Years and Older*
8. *Cholesterol Management for Patients With Cardiovascular Conditions*	21. *Cholesterol Management for Patients with Cardiovascular Conditions—LDL-C Screening* 22. *Cholesterol Management for Patients with Cardiovascular Conditions—LDL-C Level <100*
9. *Annual Monitoring for Patients on Persistent Medications*	23. *Annual Monitoring for Patients on Persistent Medications—ACE/ARBs* 24. *Annual Monitoring for Patients on Persistent Medications—Anticonvulsants* 25. *Annual Monitoring for Patients on Persistent Medications—Digoxin* 26. *Annual Monitoring for Patients on Persistent Medications—Diuretics* 27. *Annual Monitoring for Patients on Persistent Medications—Total*
10. *Inpatient Utilization—General Hospital/Acute Care*	28. *General Hospital/Acute Care—Total Inpatient-Total Discharges per 1,000 Member Months* 29. *General Hospital/Acute Care—Total Inpatient-Total Days per 1,000 Member Months* 30. *General Hospital/Acute Care—Total Inpatient-Total Average Length of Stay* 31. *General Hospital/Acute Care—Medicine-Total Discharges per 1,000 Member Months* 32. *General Hospital/Acute Care—Medicine-Total Days per 1,000 Member Months* 33. *General Hospital/Acute Care—Medicine-Total Average Length of Stay* 34. *General Hospital/Acute Care—Surgery-Total Discharges per 1,000 Member Months* 35. *General Hospital/Acute Care—Surgery-Total Days per 1,000 Member Months* 36. *General Hospital/Acute Care—Surgery-Total Average Length of Stay* 37. *General Hospital/Acute Care—Maternity-Total Discharges per 1,000 Member Months* 38. *General Hospital/Acute Care—Maternity-Total Days per 1,000 Member Months* 39. *General Hospital/Acute Care—Maternity-Total Average Length of Stay*
11. *Ambulatory Care*	40. *Ambulatory Care—Outpatient Visits per 1,000 MM* 41. *Ambulatory Care—ED Visits per 1,000 MM* 42. *Ambulatory Care—Ambulatory Surgery/Procedures per 1,000 MM* 43. *Observation Room Stays per 1,000 MM*

Measure Audit Designations

Through the audit process, each measure reported by a plan is assigned a National Committee for Quality Assurance (NCQA)-defined audit designation. Measures can receive one of two predefined designations: *Report* or *Not Report*. An audit designation of *Report* indicates that the plan complied with all HEDIS specifications to produce an unbiased, reportable rate or rates, which can be released for public reporting. An audit designation of *Not Report* indicates that the rate will not be publicly reported because the measure deviated from HEDIS specifications such that the reported rate was significantly biased or a plan chose not to report the measure.

A subset of the *Report* designation is the *Not Applicable* assignment to a rate. Although a plan may have complied with all applicable specifications, the denominator identified may be considered too small to report a rate (i.e., less than 30). The measure would have been assigned a *Report* designation with a *Not Applicable* (*NA*) rate.

Dimensions of Care

HSAG has examined four different dimensions of care for Colorado Medicaid members: Pediatric Care, Access to Care, Living With Illness, and Utilization of Services. This approach to the analysis is designed to encourage plans to consider the measures as a whole rather than in isolation, and to think about the strategic and tactical changes required to improve overall performance.

Changes to Measures

For the 2008 HEDIS reporting year, NCQA made a few modifications to some of the measures included in this report, which may impact trending patterns. NCQA updates measure specifications each year to align with any changes made to clinical practice guidelines or feedback and input from expert panels. The changes and updates made to the measures may impact the reported rates and should be considered when reviewing results.

If a specification change may have led to a significant rate increase or decrease, Sections 3 through 6 will discuss this for each measure.

Childhood Immunization Status

- NCQA deleted "documented history of illness" and "seropositive test result" as numerator evidence for DtaP, IPV, HiB, and pneumococcal conjugate.
- The measure now requires four acellular pertussis vaccines for the DTaP antigen.

Follow-Up Care for Children Prescribed ADHD Services

- Intensive outpatient and partial hospitalization visits count as follow-up visits to identify the numerator.

Annual Monitoring for Patients on Persistent Medications

- NCQA deleted the ACE Inhibitors and ARBs table
- The optional exclusion for identifying inpatient admissions refers organizations to a more comprehensive code table to identify nonacute inpatient encounters.
- NCQ deleted total exclusions data elements from Table MPM-1/2/3

Performance Levels

The purpose of identifying performance levels is to compare to national percentiles, the quality of services provided to Colorado Medicaid managed care and FFS consumers, and ultimately improve the Colorado Medicaid average for all of the measures. The HPL represents current high performance for Medicaid nationally, and the LPL represents below-average performance nationally.

Comparative information in this report is based on the national NCQA Medicaid HEDIS 2007 results, which are the most recent percentiles available from NCQA. For this report, HEDIS rates were calculated to the sixth decimal place. The results displayed in this report were rounded to the first decimal place to be consistent with the display of national Medicaid percentiles. There are some instances in which rounded rates may appear the same; however, the more precise rates are not identical. In these instances, the graphs display the hierarchy of the scores in the correct order.

For most measures included in this report, the 90th percentile indicates the HPL, the 25th percentile represents the LPL, and average performance falls between the LPL and the HPL. This means that Colorado Medicaid plans with reported rates above the 90th percentile (HPL) rank in the top 10 percent of all plans nationally. Similarly, plans reporting rates below the 25th percentile (LPL) rank in the bottom 25 percent nationally for that measure.

There is one measure for which this differs—i.e., the 10th percentile (rather than the 90th) shows excellent performance and the 75th percentile (rather than the 25th) shows below-average performance—because for this measures only, *lower* rates indicate better performance. The measure is:

- *Well-Child Visits in the First 15 Months of Life—Zero Visits*, for which *lower* rates of no visits indicate *better* care.

This report identifies and specifies the number of Colorado Medicaid plans with HPL, LPL, and average performance levels.

Performance Trend Analysis

In Appendix C, the column titled "2007–2008 Trend" shows, by measure, the comparison between the 2007 results and the 2008 results for each MCO and the FFS program. A conservative method was implemented to assess statistical significance (i.e., 95 percent confidence intervals that did not overlap were considered statistically significant). Trends are shown graphically, using the key below:

- ⬆ Denotes a significant improvement in performance (the rate has increased more than 10 percentage points)
- ⬌ Denotes no significant change in performance (the rate has not changed more than 10 percentage points, which is considered within the margin of error)
- ⬇ Denotes a significant decline in performance (the rate has decreased more than 10 percentage points)

Different symbols (▲▼) are used to indicate a significant performance change for one measure. *Well-Child Visits in the First 15 Months of Life—Zero Visits* is the only measure for which a decrease in the rate indicates better performance. For this measure, a downward-pointing triangle (▼) denotes a significant *decline* in performance, as indicated by an *increase* of more than 10 percentage points in the rate. An upward-pointing triangle (▲) denotes a significant *improvement* in performance, as indicated by a *decrease* of more than 10 percentage points in the rate.

Colorado Medicaid Averages

The principal measure of overall Colorado Medicaid managed care performance on a given measure is the *weighted* average rate. The use of a weighted average, based on the plan's eligible population for that measure, provides the most representative rate for the overall Colorado Medicaid population. Weighting the rate by the plan's eligible population size ensures that rates for a plan with 125,000 members, for example, have a greater impact on the overall Colorado Medicaid rate than rates for a plan with only 10,000 members.

Significance Testing

In this report, differences between the 2007 and 2008 Colorado Medicaid weighted averages have been analyzed using a *t* test to determine if the change was statistically significant. The *t* test evaluates the differences between mean values of two groups relative to the variability of the distribution of the scores. The *t* value generated is used to judge how likely it is that the difference is real and not the result of chance.

To determine the significance for this report, a risk level of 0.05 was selected. This risk level, or alpha level, means that 5 times out of 100 we may find a statistically significant difference between the mean values even if none actually existed (that is, it happened by chance). All comparisons between the 2007 and 2008 Colorado Medicaid weighted averages reported as statistically significant in this report are significant at the 0.05 level.

Calculation Methods: Administrative Versus Hybrid

Administrative Method

The administrative method requires plans to identify the eligible population (i.e., the denominator) using administrative data derived from claims and encounters (i.e., statistical claims). In addition, the numerator(s), or services provided to the members in the eligible population, are derived solely from administrative data. Medical records cannot be used to retrieve information. When using the administrative method, the entire eligible population becomes the denominator, and sampling is not allowed. There are measures in each of the four dimensions of care for which HEDIS methodology requires that rates be derived using only the administrative method, and medical record review is not permitted.

The administrative method is cost efficient, but it can produce lower rates due to incomplete data submission by capitated providers.

Hybrid Method

The hybrid method requires plans to identify the eligible population using administrative data, then extract a systematic sample of members from the eligible population, which becomes the denominator. Administrative data are used to identify services provided to those members. Medical records must then be reviewed for those members who do not have evidence of a service being provided using administrative data.

The hybrid method generally produces higher results but is considerably more labor intensive. For example, a plan has 10,000 members who qualify for the *Prenatal and Postpartum Care* measure. The plan chooses to perform the hybrid method. After randomly selecting 411 eligible members, the plan finds that 161 members had evidence of a postpartum visit using administrative data. The plan then obtains and reviews medical records for the 250 members who did not have evidence of a postpartum visit using administrative data. Of those 250 members, 54 are found to have a postpartum visit recorded in the medical record. The final rate for this measure, using the hybrid method, would be (161 + 54)/411, or 52 percent.

In contrast, using the administrative method, if the plan finds that 4,000 members out of the 10,000 had evidence of a postpartum visit using only administrative data, the final rate for this measure would be 4,000/10,000, or 40 percent.

Interpreting Results

As expected, HEDIS results can differ to a greater or lesser extent among plans and even across measures for the same plan.

Three questions should be asked when examining these data:

1. How accurate are the results?
2. How do Colorado Medicaid rates compare to national percentiles?
3. How are Colorado plans performing overall?

The following paragraphs address these questions and explain the methods used in this report to present the results for clear, easy, and accurate interpretation.

1. How accurate are the results?

The Department requires that all Colorado Medicaid plans and the FFS program have their HEDIS results confirmed by an NCQA HEDIS Compliance Audit. As a result, any rate included in this report has been verified as an unbiased estimate of the measure. The NCQA HEDIS protocol is designed so that the hybrid method produces results with a sampling error of ± 5 percent at a 95 percent confidence level.

How sampling error affects the accuracy of results is best explained using an example. Suppose a plan uses the hybrid method to derive a *Postpartum Care* rate of 52 percent. Because of sampling error, the true rate is actually ± 5 percent of this rate—somewhere between 47 and 57 percent at a 95 percent confidence level. If the target rate is 55 percent, it is not certain that the true rate, which is between 47 and 57 percent, meets or does not meet the target level.

To prevent such ambiguity, this report uses a standardized methodology that requires the reported rate to be at or above the threshold level to be considered as meeting the target. For internal purposes, plans should understand and consider the issue of sampling error when implementing interventions.

2. How do Colorado Medicaid rates compare to national percentiles?

For each measure, a plan ranking presents the reported rate in order from highest to lowest, with bars representing the established HPL, LPL, and the national HEDIS 2007 Medicaid 50th percentile. In addition, the report presents the 2008, 2007, and 2006 Colorado Medicaid weighted averages for comparison purposes.

Colorado Medicaid plan or FFS program rates above the 90th percentile (HPL) rank in the top 10 percent of all plans nationally. Similarly, plans reporting rates below the 25th percentile (LPL) rank in the bottom 25 percent nationally for that measure.

3. How are Colorado plans performing overall?

For each dimension, a performance profile analysis compares the 2008 Colorado Medicaid weighted average for each rate with the 2007 and 2006 Colorado Medicaid weighted averages and the national HEDIS 2007 Medicaid 50th percentile if these rates are available.

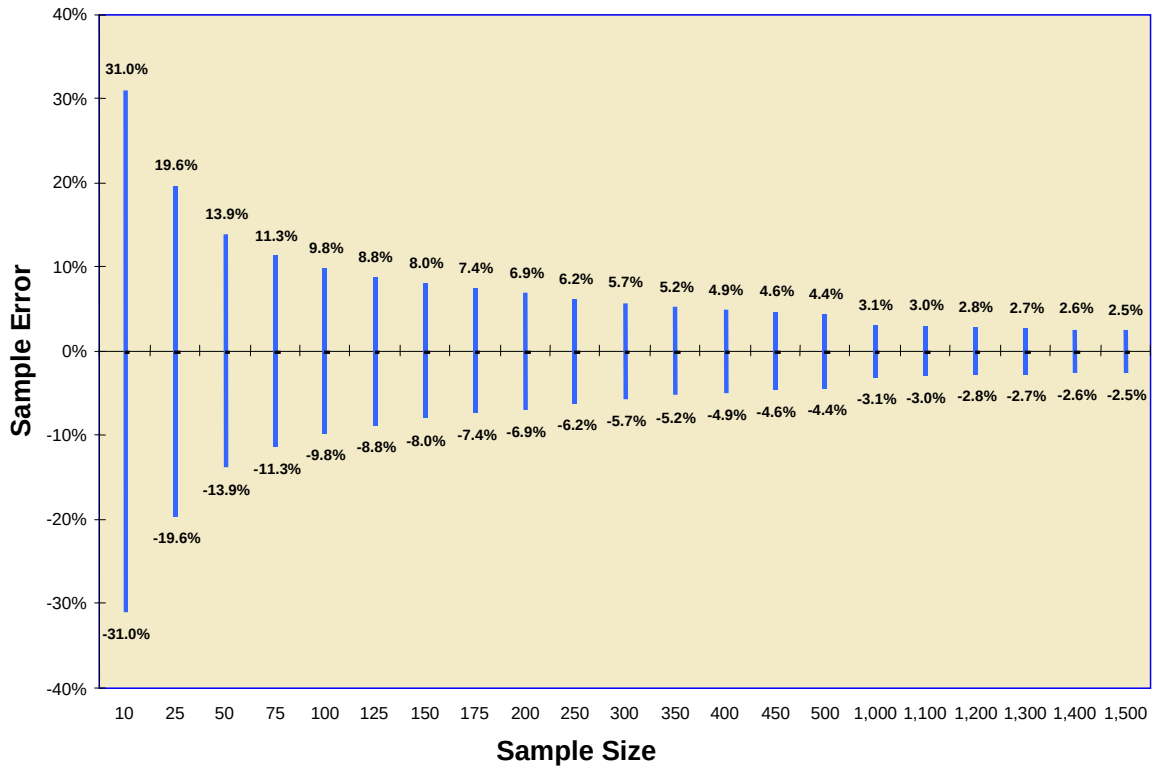
Understanding Sampling Error

Correct interpretation of results for measures collected using the HEDIS hybrid methodology requires an understanding of sampling error. It is rarely possible, logistically or financially, to do medical record review for the entire eligible population for a given measure. Measures collected using the HEDIS hybrid method include only a sample from the population, and statistical techniques are used to maximize the probability that the sample results reflect the experience of the entire eligible population.

For results to be generalized to the entire population, the process of sample selection must be such that everyone in the eligible population has an equal chance of being selected. The HEDIS hybrid method prescribes a systematic sampling process, selecting at least 411 members of the eligible population. Plans may use a 5 percent, 10 percent, 15 percent, or 20 percent oversample to replace invalid cases (e.g., a male selected for postpartum care).

Figure 2-1 shows that if 411 plan members are included in a measure, the margin of error is approximately ± 4.9 percentage points. Note that the data in this figure are based on the assumption that the size of the eligible population is greater than 2,000. The smaller the number included in the measure, the larger the sampling error.

Figure 2-1—Relationship of Sample Size to Sample Error



As Figure 2-1 shows, sample error gets smaller as the sample size gets larger. Consequently, when sample sizes are very large and sampling errors are very small, almost any difference is statistically significant. This does not mean that all such differences are important. On the other hand, the difference between two measured rates may not be statistically significant, but may, nevertheless, be important. The judgment of the reviewer is always a requisite for meaningful data interpretation.

Limitations

The reported rates and weighted averages for measures in each dimension of care may have the following limitations:

Pediatrics

- It is estimated that almost 30 percent of the Medicaid population receives care in an FQHC. The Department pays the FQHCs a flat rate per encounter, creating the potential for missing data. The FQHCs may underreport rates for well-child visits, immunizations, and some of the other services they render. These missing data would most likely impact FFS and PCPP rates.

Access to Care

- Some of the measures presented in this section may not have adequate trending information either because the plan did not report the measure in the past or because the measure had new/major changes to the specifications.
- In Colorado, managed care plans assign members a provider, which encourages members to access care from the same source at each visit. The FFS program, however, does not assign members a provider, leading members to access care from a different source at each visit. The assignment of a provider can lead to higher rates due to better compliance and follow-up by providers who see members on a regular basis.

Living With Illness

- Some of the measures presented in this section may not have adequate trending information either because the plan did not report the measure in the past or because the measure had new/major changes to the specifications.

Utilization of Services

- Whether high utilization indicates a problem depends on the characteristics of the plan. Each plan would need to make this determination based on its population.

Overall limitations include the following:

- The HEDIS measures presented in this report may not be the entire set of HEDIS measures reported to NCQA by the plans. The Department specified which measures should be included in this report and used for comparative purposes across the plans.
- In general, plans could choose to report some measures using the hybrid method if NCQA allowed this method. Plans that opted to report rates using the hybrid method were able to supplement their administrative rates with medical record data and identify missing encounter or claims data, unlike plans that reported only administrative data.

Plan Name Key

Figures in the following sections of the report show overall plan performance for each of the measures. Below is the name code for each of the plan abbreviations used in the figures.

Table 2-2—2008 Colorado Plans

Code	Plan Name
DHMC	Denver Health Medicaid Choice
RMHP	Rocky Mountain Health Plans
FFS	Fee-for-Service Program
PCPP	Primary Care Physician Program

Introduction

Pediatric primary health care is a vital part of the effort to prevent, recognize, and treat health conditions that can result in significant developmental consequences for children and adolescents. In 2007, 45.8 percent of children in Colorado had a primary care provider and consistently received all needed care, including one or more preventative care visits during the past 12 months.[3-1] Appropriate immunizations and health checkups are particularly important for young children. Failure to detect problems with growth, hearing, and vision in toddlers may adversely impact future abilities and experiences. Early detection of developmental issues gives health care professionals the best opportunity to intervene and provide children with the chance to grow and learn without health-related limitations.

As part of a well-care visit, the vaccination status of the child or adolescent is assessed. Nationally, 80.6 percent of children 19 to 35 months of age received complete immunizations in 2007.[3-2] Today, more than 26 percent of 2-year-old children in the United States are missing one or more recommended immunizations.[3-3]

Healthy People 2010 set a goal of increasing the proportion of young children (19–35 months of age) who receive all vaccines that have been recommended for universal administration for at least five years to 80 percent by 2010.[3-4] The national baseline (1998) measurement for this goal was 73 percent. At its midcourse review, the proportion of fully immunized young children in the nation had achieved 29 percent of the targeted change.[3-5] National Immunization Survey (NIS) data show that the estimated 4:3:1:3:3:1 vaccine series coverage for 2006 was 77 percent of children 19 to 35 months of age in the United States.[3-6]

[3-1] The Colorado Health Report Card. 2007 The Colorado Health Foundation. Available at: http://www.coloradohealthreportcard.org/children/. Accessed on October 9, 2008.

[3-2] United Health Foundation. America's Health Rankings. Available at: http://www.unitedhealthfoundation.org/ahr2007/immune.html. Accessed on July 22, 2008.

[3-3] National Committee for Quality Assurance. The State of Health Care Quality, 2007. Available at: http://www.ncqa.org/Portals/0/Publications/Resource%20Library/SOHC/SOHC_07.pdf. Accessed on July 22, 2008.

[3-4] Healthy People 2010: Objectives for Improving Health. Available at: http://www.healthypeople.gov/Document/HTML\Volume1\14Immunization.htm. Accessed on July 22, 2008.

[3-5] Healthy People 2010: Midcourse Review. Available at: http://www.healthypeople.gov/data/midcourse/pdf/fa14.pdf. Accessed on July 22, 2008.

[3-6] National, state, and local area vaccination coverage among children aged 19–35 months—United States, 2006. MMWR Morb Mortal Wkly Rep. 2007 Aug 31;56(34):880-5. Available at: http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5634a2.htm. Accessed on July 22, 2008.

The following pages provide detailed analysis of the Colorado MCOs and FFS program's performance and ranking for these measures.

The Pediatric Care dimension encompasses the following measures:

- ***Childhood Immunization Status***
  - *Childhood Immunization Status—DTaP*
  - *Childhood Immunization Status—IPV*
  - *Childhood Immunization Status—MMR*
  - *Childhood Immunization Status—HiB*
  - *Childhood Immunization Status—Hepatitis B*
  - *Childhood Immunization Status—VZV*
  - *Childhood Immunization Status—Pneumococcal conjugate*
  - *Childhood Immunization Status—Combination 2*
  - *Childhood Immunization Status—Combination 3*

- ***Well-Care Visits***
  - *Well-Child Visits in the First 15 Months of Life—Zero Visits*
  - *Well-Child Visits in the First 15 Months of Life—Six or More Visits*
  - *Well-Child Visits in the Third, Fourth, Fifth, and Sixth Years of Life*
  - *Adolescent Well-Care Visits*

- ***Follow-up Care for Children Prescribed ADHD Medication***
  - *Follow-up Care for Children Prescribed ADHD Medication—Initiation*
  - *Follow-up Care for Children Prescribed ADHD Medication—Continuation*

Childhood Immunization Status

Childhood vaccination has led to dramatic declines in many life-threatening diseases such as polio, tetanus, whooping cough, mumps, measles, and meningitis over the last 50 years. These diseases can still be dangerous, however, and can cause blindness, hearing loss, diminished motor functioning, liver damage, coma, and death in unvaccinated children. For example, discontinuing influenza immunization would result in approximately 20,000 cases of invasive disease and 600 deaths.[3-7] The CDC suggests that children 0–6 years of age receive the following vaccinations: hepatitis B; rotavirus; diphtheria, tetanus, and pertussis (DTaP); *Haemophilus influenzae* type b (HiB); pneumococcal conjugate (PCV); inactivated poliovirus (IPV); influenza; measles, mumps, and rubella (MMR); varicella-zoster virus (VZV); hepatitis A; and meningococcal.[3-8]

Colorado ranked last among the 50 states in terms of immunization coverage as recently as 2003, according to NIS data; however, Colorado has improved its rates in recent years, ranking 28th in 2006 with a coverage rate of 80.3 percent.[3-9] The Colorado Immunization Information System (CIIS) is a computerized system used to collect and disseminate immunization information.[3-10] This system helps Colorado to increase and sustain immunization coverage rates by consolidating immunization records from multiple providers and identifying individuals who are not up to date with their vaccinations. CIIS can be used by providers to send notices to families of children who are overdue for immunizations, which can improve coverage rates. As of December 2007, CIIS had participation rates of 100 percent of publicly funded clinics, 70 percent of pediatric practices, and 25 percent of family practices in the State.[3-11] Reporting year 2008 was the first year that used data from the CIIS registry, in conjunction with hybrid data, for HEDIS reporting. Reporting in previous years relied solely on hybrid data for the Childhood Immunization Status (CIS) measure. The inclusion of CIIS data led to a significant increase in CIS rates for 2008.

Measures in this section include:

- *Childhood Immunization Status—DTaP*
- *Childhood Immunization Status—IPV*
- *Childhood Immunization Status—MMR*
- *Childhood Immunization Status—HiB*
- *Childhood Immunization Status—Hepatitis B*
- *Childhood Immunization Status—VZV*
- *Childhood Immunization Status—Pneumococcal conjugate*
- *Childhood Immunization Status—Combination 2*
- *Childhood Immunization Status—Combination 3*

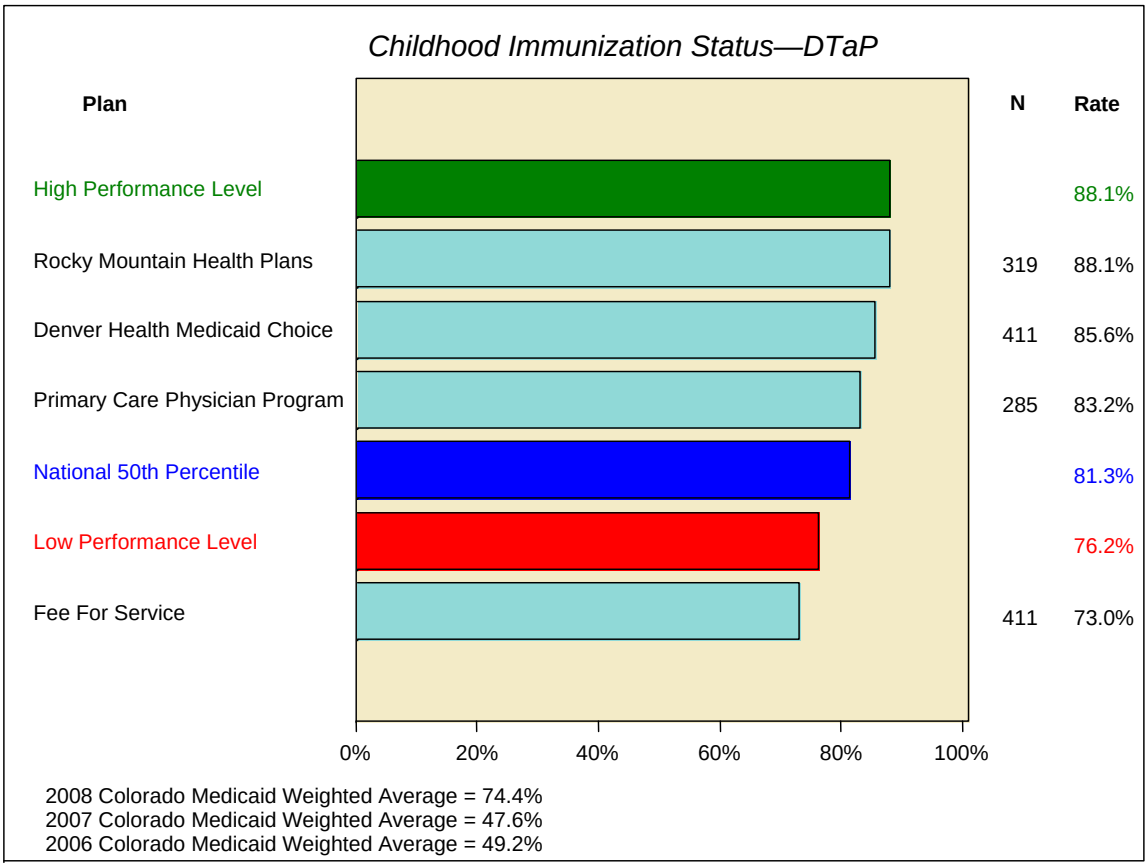
[3-7] National Committee for Quality Assurance. The State of Health Care Quality, 2007. Available at: http://www.ncqa.org/Portals/0/Publications/Resource%20Library/SOHC/SOHC_07.pdf. Accessed on July 22, 2008.
[3-8] Centers for Disease Control and Prevention. 2008 Child & Adolescent Immunization Schedules. Available at: http://www.cdc.gov/vaccines/recs/schedules/child-schedule.htm. Accessed on July 23, 2008.
[3-9] Colorado Children's Immunization Coalition. Vaccine-Preventable Diseases in Colorado's Children, 2007. Available at: http://www.childrensimmunization.org/file.php/165/VPD+Report+2007.pdf. Accessed on July 22, 2008.
[3-10] Colorado Immunization Information System. Available at: http://cor.uchsc.edu/ciis/Intro.htm. Accessed on July 23 2008.
[3-11] Ibid.

HEDIS Specification: Childhood Immunization Status—DTaP

Childhood Immunization Status—DTaP calculates the percentage of enrolled children who turned 2 years of age during the measurement year, who were continuously enrolled for 12 months immediately preceding their second birthday, and who were identified as having four DTaPs within the allowable time period and by the member's second birthday.

Plan Ranking: Childhood Immunization Status—DTaP

Figure 3-1—Colorado Medicaid HEDIS 2008
Plan Ranking:
Childhood Immunization Status—DTaP



The 2008 Colorado Medicaid weighted average for this measure was 74.4 percent, and three plans ranked above this rate. All of the plans ranked below the HPL, and the FFS rate of 73 percent ranked below the LPL of 76.2 percent.

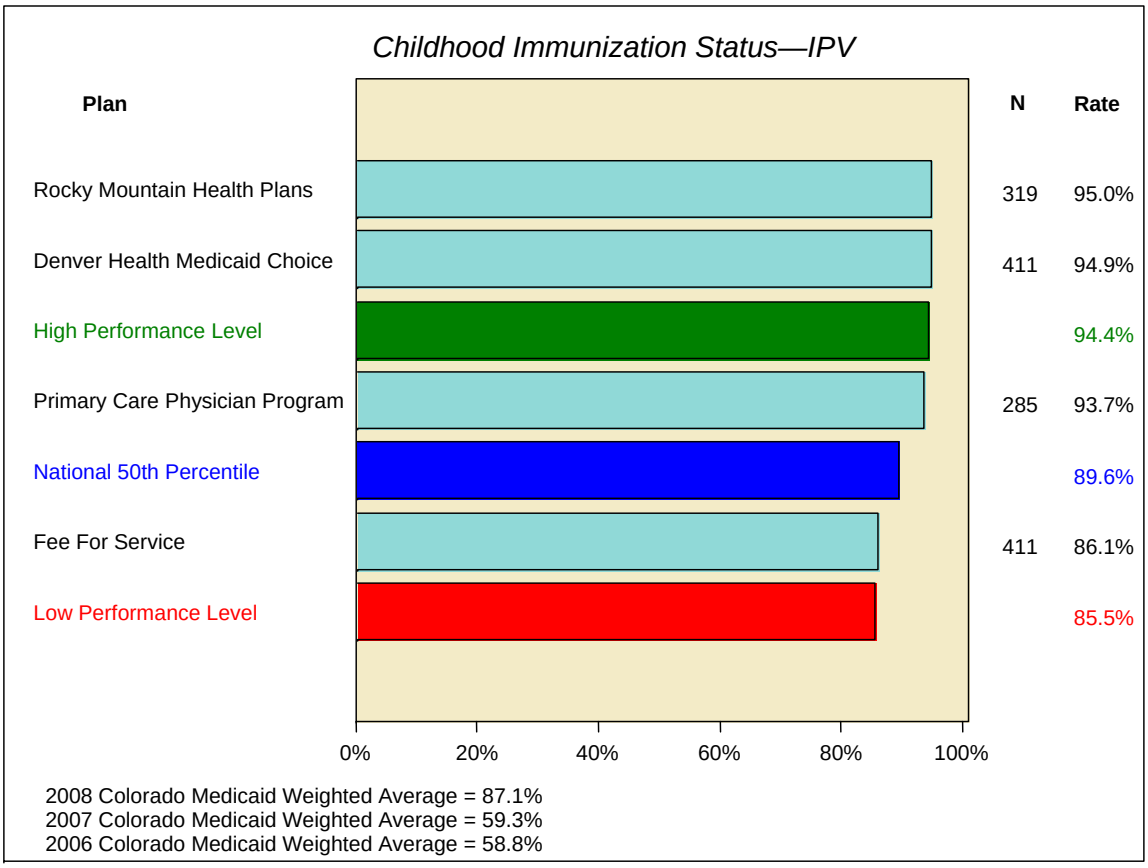
The 2008 Colorado Medicaid weighted average showed a statistically significant increase of nearly 27 percentage points compared to the 2007 weighted average.

HEDIS Specification: Childhood Immunization Status—IPV

Childhood Immunization Status—IPV calculates the percentage of enrolled children who turned 2 years of age during the measurement year, who were continuously enrolled for 12 months immediately preceding their second birthday, and who were identified as having three IPV vaccinations within the allowable time period and by the member's second birthday.

Plan Ranking: Childhood Immunization Status—IPV

Figure 3-2—Colorado Medicaid HEDIS 2008
Plan Ranking:
Childhood Immunization Status—IPV



All of the plans ranked above the LPL of 85.5 percent, and the two MCOs ranked above the HPL. The Colorado 2008 Medicaid weighted average of 87.1 percent ranked slightly below the national HEDIS 2007 Medicaid 50th percentile of 89.6 percent.

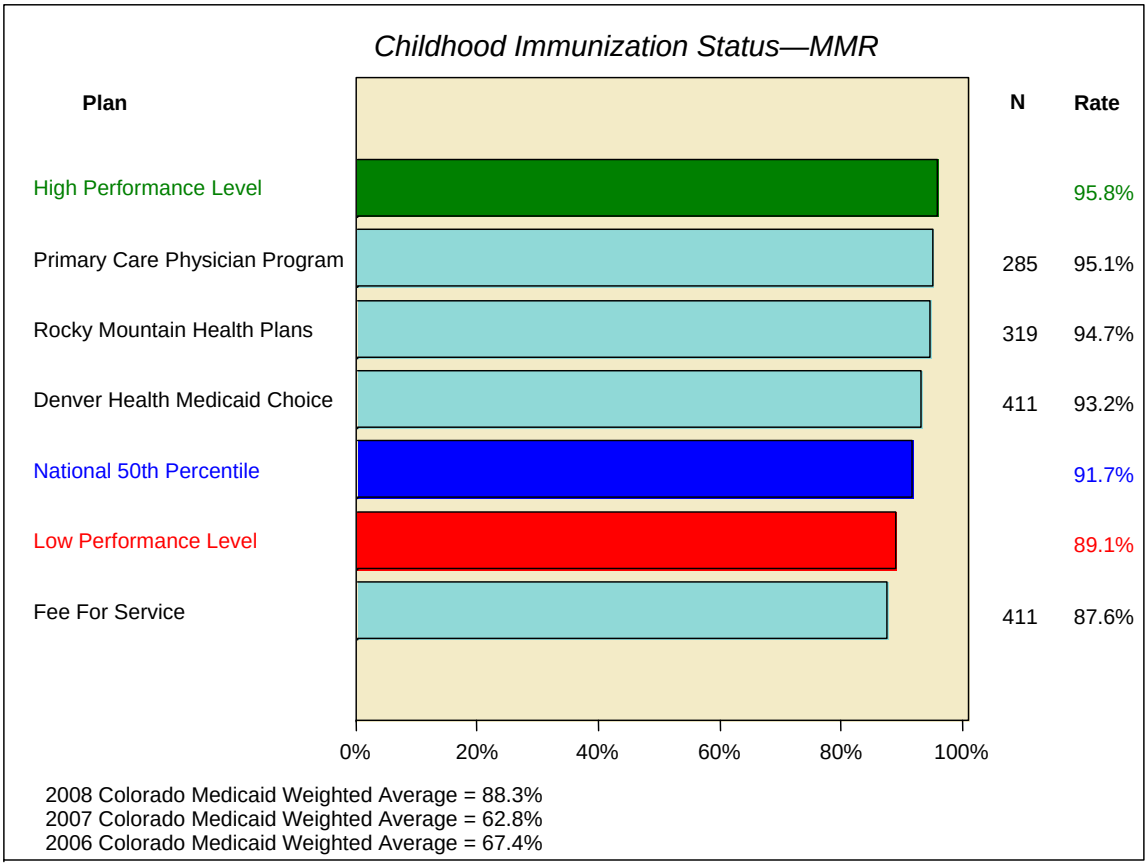
The 2008 Colorado Medicaid weighted average increased by 27.8 percentage points compared to the 2007 weighted average. This increase was statistically significant.

HEDIS Specification: Childhood Immunization Status—MMR

Childhood Immunization Status—MMR calculates the percentage of enrolled children who turned 2 years of age during the measurement year, who were continuously enrolled for 12 months immediately preceding their second birthdays, and who were identified as having one MMR within the allowable time period and by the member's second birthday.

Plan Ranking: Childhood Immunization Status—MMR

Figure 3-3—Colorado Medicaid HEDIS 2008
Plan Ranking:
Childhood Immunization Status—MMR



None of the plans exceeded the HPL of 95.8 percent, and the FFS product line performed below the LPL. The Colorado 2008 Medicaid weighted average of 88.3 percent ranked below the national HEDIS 2007 Medicaid 50th percentile of 91.7 percent.

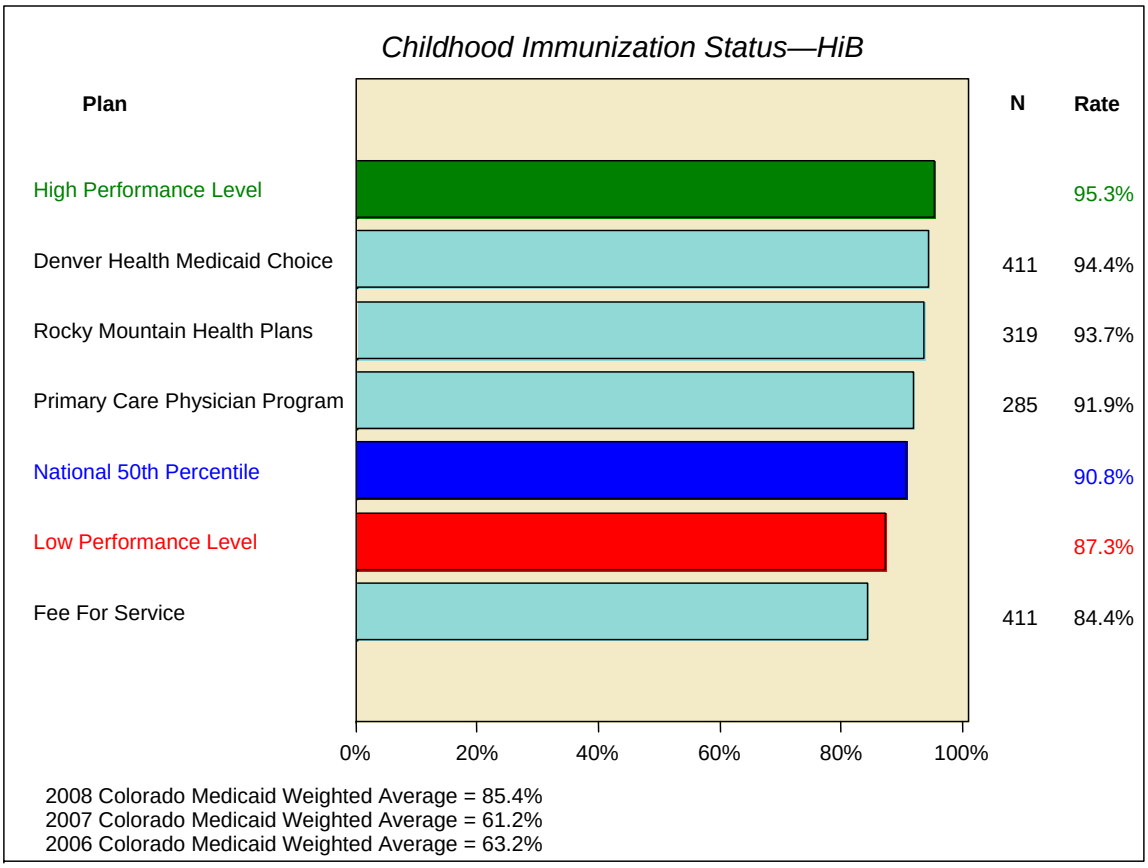
The 2008 Colorado Medicaid weighted average had a statistically significant increase of 25.5 percentage points over the 2007 weighted average of 62.8 percent.

HEDIS Specification: Childhood Immunization Status—HiB

Childhood Immunization Status—HiB calculates the percentage of enrolled children who turned 2 years of age during the measurement year, who were continuously enrolled for 12 months immediately preceding their second birthday, and who were identified as having three HiB vaccinations within the allowable time period and by the member's second birthday.

Plan Ranking: Childhood Immunization Status—HiB

Figure 3-4—Colorado Medicaid HEDIS 2008
Plan Ranking:
Childhood Immunization Status—HiB



The PCPP and MCOs ranked higher than the national HEDIS 50th percentile of 90.8 percent but did not exceed the HPL. FFS performed below the LPL and the 2008 Colorado Medicaid weighed average of 85.4 percent.

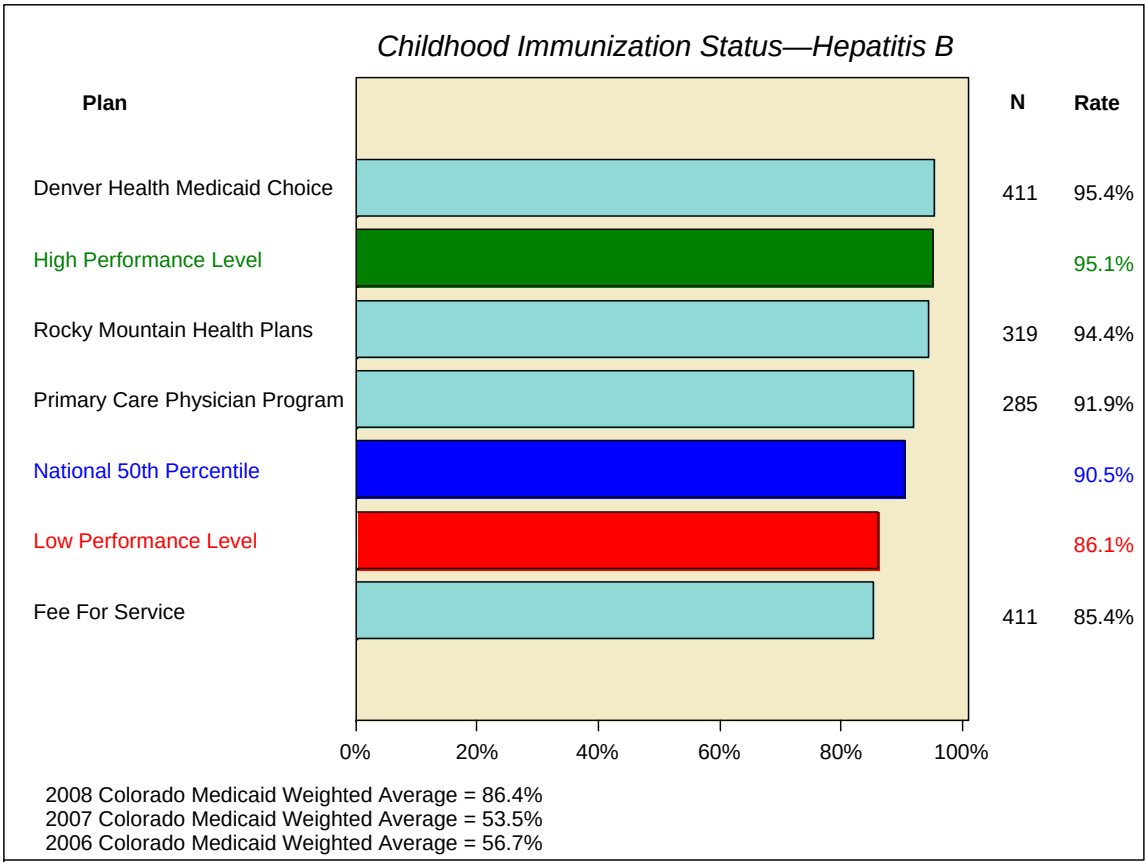
There was a statistically significant increase of 24.2 percentage points between the 2008 weighted average and the 2007 weighted average.

HEDIS Specification: Childhood Immunization Status—Hepatitis B

Childhood Immunization Status—Hepatitis B calculates the percentage of enrolled children who turned 2 years of age during the measurement year, who were continuously enrolled for 12 months immediately preceding their second birthday, and who were identified as having three hepatitis B vaccines within the allowable time period and by the member's second birthday.

Plan Ranking: Childhood Immunization Status—Hepatitis B

Figure 3-5—Colorado Medicaid HEDIS 2008
Plan Ranking:
Childhood Immunization Status—Hepatitis B



The two MCOs and the PCPP exceeded the national HEDIS 50th percentile, and DHMC ranked higher than the HPL by 0.3 percentage points. The FFS population again fell below the LPL. The 2008 Colorado Medicaid weighted average ranked above the LPL but below the 50th percentile.

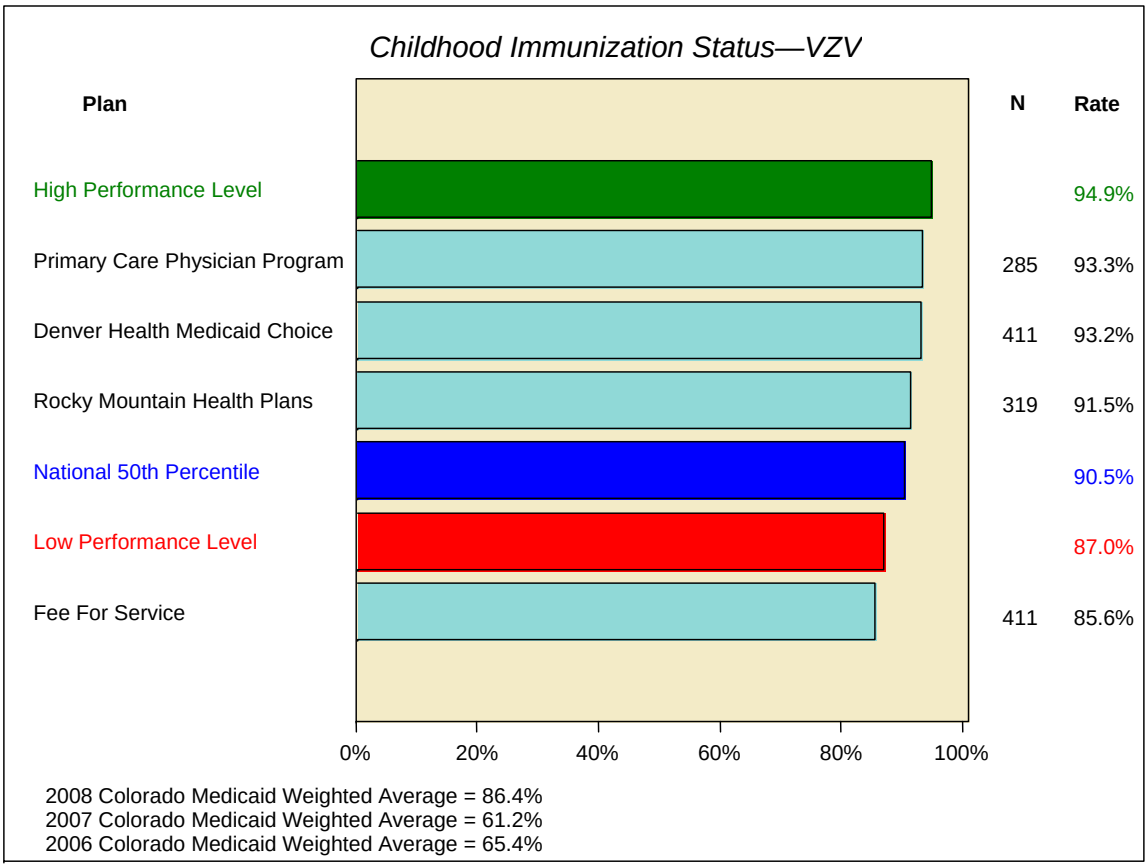
The 2008 weighted average was nearly 33 percentage points higher than the 2007 weighted average. This increase was statistically significant.

HEDIS Specification: Childhood Immunization Status—VZV

Childhood Immunization Status—VZV calculates the percentage of enrolled children who turned 2 years of age during the measurement year, who were continuously enrolled for 12 months immediately preceding their second birthday, and who were identified as having one VZV (chicken pox) vaccination within the allowable time period and by the member's second birthday.

Plan Ranking: Childhood Immunization Status—VZV

Figure 3-6—Colorado Medicaid HEDIS 2008
Plan Ranking:
Childhood Immunization Status—VZV



None of the plans ranked above the HPL, and FFS performed below the LPL of 87.0 percent. The two MCOs and the PCPP exceeded the national HEDIS 2007 Medicaid 50th percentile of 90.5 percent and the 2008 weighted average of 86.4 percent.

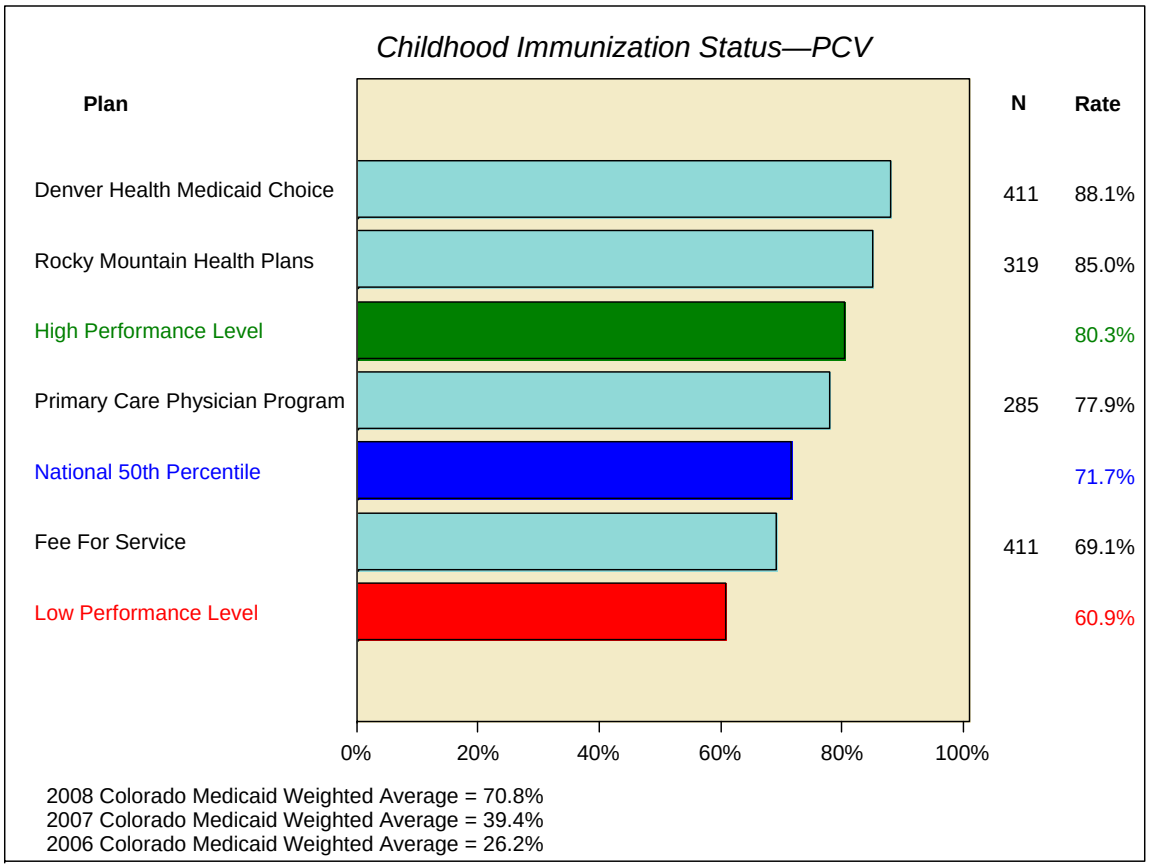
The 2008 Colorado Medicaid weighted average showed a statistically significant increase of 25.2 percentage points over the 2007 weighted average.

HEDIS Specification: Childhood Immunization Status—Pneumococcal conjugate

Childhood Immunization Status—Pneumococcal conjugate calculates the percentage of enrolled children who turned 2 years of age during the measurement year, who were continuously enrolled for 12 months immediately preceding their second birthday, and who were identified as having four PCV vaccinations within the allowable time period and by the member's second birthday.

Plan Ranking: Childhood Immunization Status—Pneumococcal conjugate

Figure 3-7—Colorado Medicaid HEDIS 2008
Plan Ranking:
Childhood Immunization Status—Pneumococcal conjugate



The two MCOs exceeded the HPL of 80.3 percent, and none of the plans ranked below the LPL of 60.9 percent for this measure. The FFS population ranked below the national HEDIS Medicaid 50th percentile of 71.7 percent and the 2008 Colorado Medicaid weighted average of 70.8 percent.

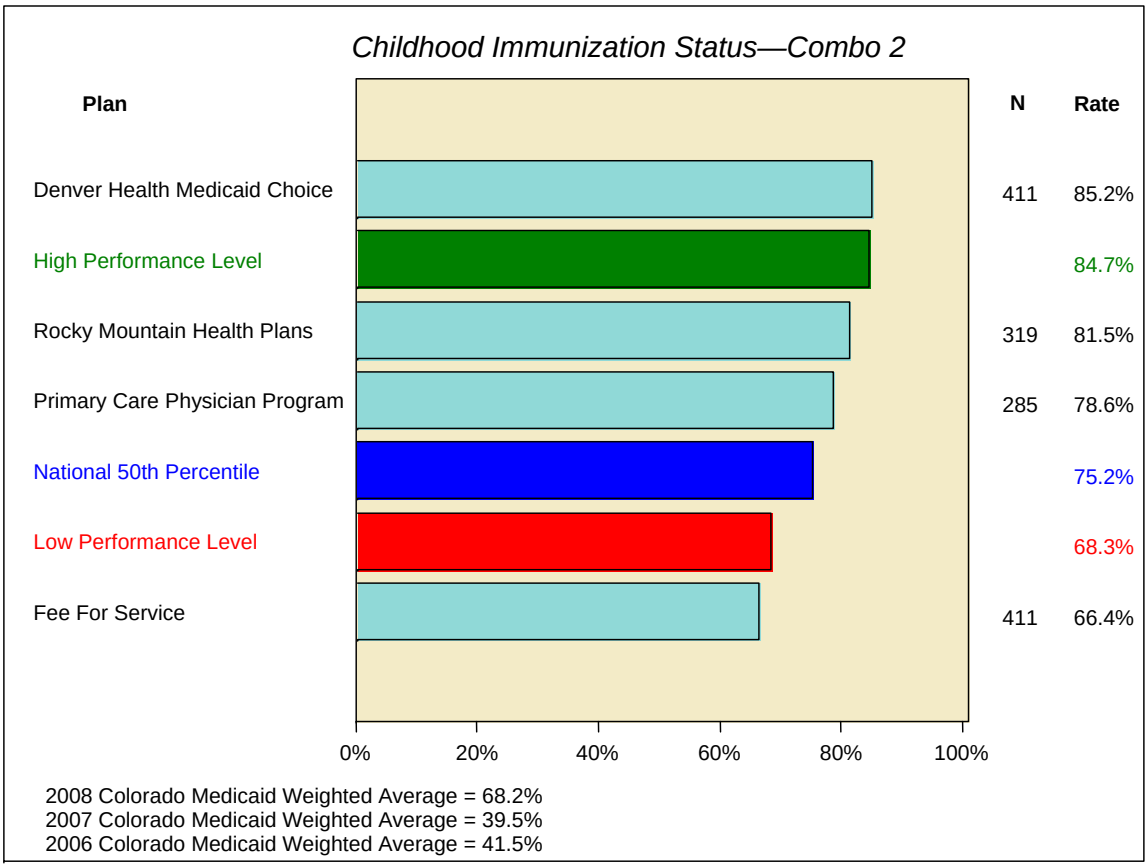
The 2008 weighted average showed a statistically significant increase of 31.4 percentage points over the 2007 weighted average.

HEDIS Specification: Childhood Immunization Status—Combination 2

Childhood Immunization Status—Combination 2 calculates the percentage of enrolled children who turned 2 years of age during the measurement year, who were continuously enrolled for 12 months immediately preceding their second birthday, and who were identified as having four DTaP, three IPV, one MMR, three HiB, three hepatitis B, and one VZV, each within the allowable time period and by the member's second birthday.

Plan Ranking: Childhood Immunization Status—Combination 2

Figure 3-8—Colorado Medicaid HEDIS 2008
Plan Ranking:
Childhood Immunization Status—Combination 2



DHMC performed above the HPL of 84.7 percent, and FFS performed below the LPL of 68.3 percent. The 2008 Colorado Medicaid weighted average ranked below the LPL by 0.1 percentage points. The two MCOs and PCPP exceeded the national HEDIS 2007 Medicaid 50th percentile.

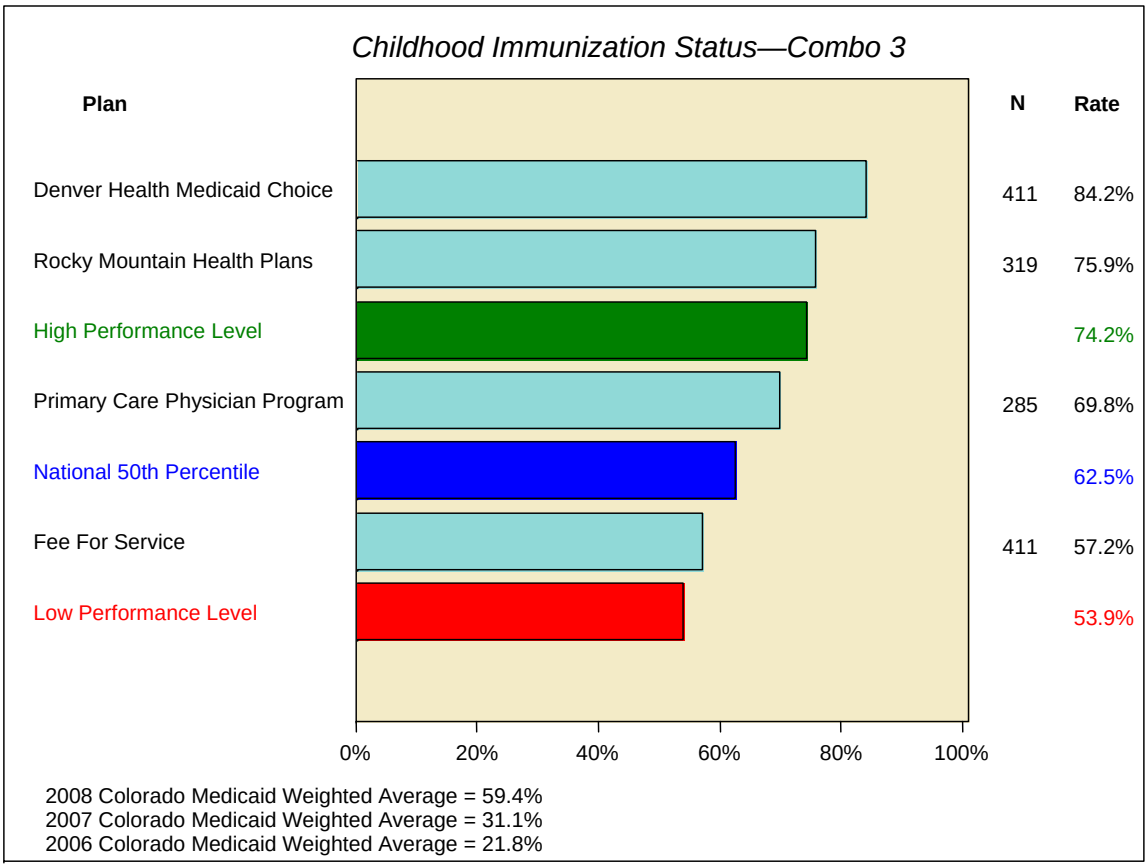
The 2008 Colorado Medicaid weighted average increased by nearly 29 percentage points from the 2007 weighted average. This increase was statistically significant.

HEDIS Specification: Childhood Immunization Status—Combination 3

Childhood Immunization Status—Combination 3 calculates the percentage of enrolled children who turned 2 years of age during the measurement year, who were continuously enrolled for 12 months immediately preceding their second birthday, and who were identified as having four DTaP/DT, three IPV, one MMR, three Hib, three hepatitis B, one VZV, and four pneumococcal conjugate vaccinations, each within the allowable time period and by the member's second birthday.

Plan Ranking: Childhood Immunization Status—Combination 3

Figure 3-9—Colorado Medicaid HEDIS 2008
Plan Ranking:
Childhood Immunization Status—Combination 3



All of the plans ranked above the LPL of 53.9 percent. The two MCOs exceeded the HPL of 74.2 percent. The 2008 Colorado Medicaid weighted average of 59.4 percent fell below the national HEDIS 2007 Medicaid 50th percentile of 62.5 percent.

The 2008 Medicaid weighted average, compared to the 2007 weighted average, showed a statistically significant improvement of 28.3 percentage points.

Well-Child Visits in the First 15 Months of Life

The American Medical Association (AMA) and the American Academy of Pediatrics (AAP) recommend timely, comprehensive well-child visits for children. In 2004, 85 percent of children younger than 6 years of age nationwide received a well-child checkup during the previous year.[3-12] These periodic checkups allow clinicians to assess a child's physical, behavioral, and developmental status, and provide any necessary treatment, intervention, or referral to a specialist. A study of Medicaid children who were up to date for their age with the AAP's recommended well-child visit schedule showed a significant reduction in risk of avoidable hospitalizations for that group.[3-13]

Measures include the following rates:

- *Well-Child Visits in the First 15 Months of Life—Zero Visits*
- *Well-Child Visits in the First 15 Months of Life—Six or More Visits*

The following pages analyze in detail the performance profile and plan rankings of the Colorado MCOs and FFS program for the two rates reported for this measure: Zero Visits and Six or More Visits.

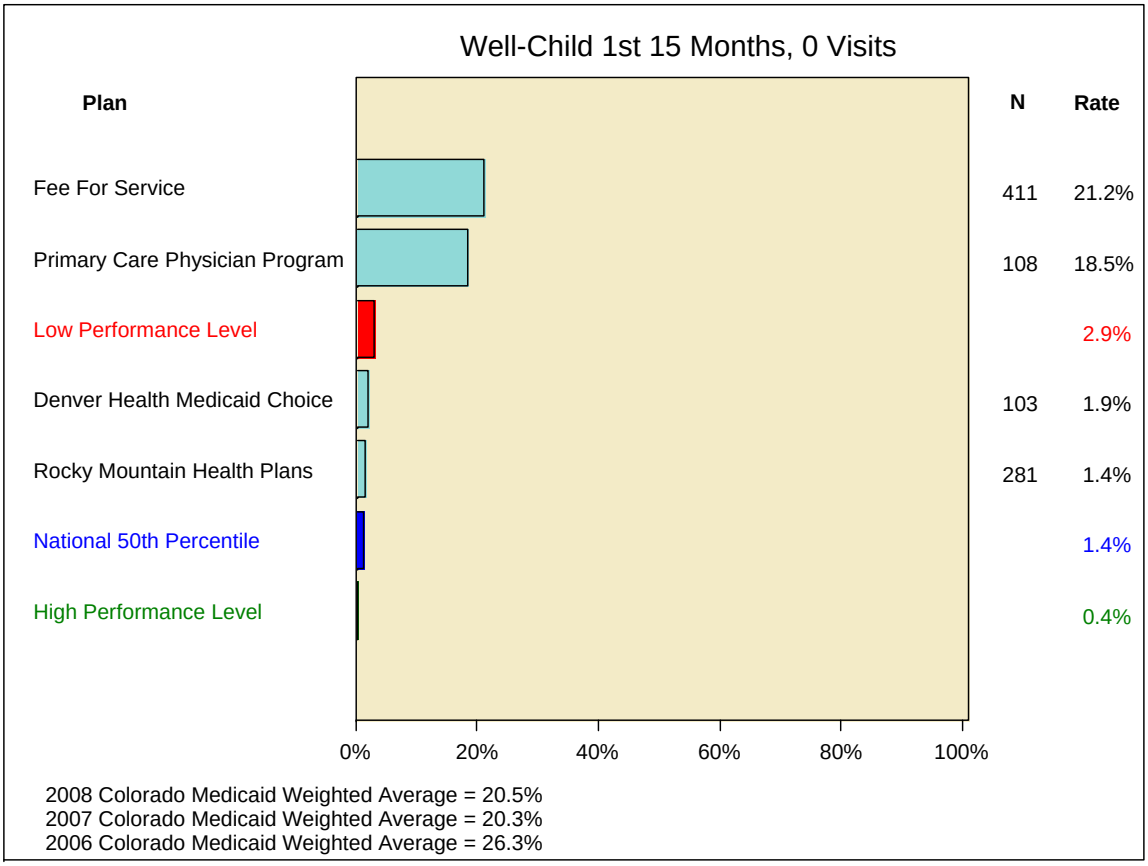
[3-12] Child Trends Databank. Well-child visits. Available at: http://www.childtrendsdatabank.org/indicators/93WellChildVisits.cfm. Accessed on July 23, 2008.
[3-13] Hakim RB, Bye BV. Effectiveness of Compliance With Pediatric Preventive Care Guidelines Among Medicaid Beneficiaries. *Pediatrics*. 2001, 108 (1): 90-97.

HEDIS Specification: Well-Child Visits in the First 15 Months of Life—Zero Visits

Well-Child Visits in the First 15 Months of Life—Zero Visits calculates the percentage of enrolled members who turned 15 months of age during the measurement year, who were continuously enrolled in the Colorado plan from 31 days of age, and who received zero visits with a primary care practitioner (PCP) during their first 15 months of life.

Plan Ranking: Well-Child Visits in the First 15 Months of Life—Zero Visits

Figure 3-10—Colorado Medicaid HEDIS 2008
Plan Ranking:
Well-Child Visits in the First 15 Months of Life—Zero Visits



For this measure a *lower* rate indicates better performance since low rates of zero visits indicate better care.

Figure 3-10 shows the percentage of children who received no well-child visits by 15 months of age. For this measure, a lower rate indicates better performance.

None of the plans performed better than the national HEDIS 2007 Medicaid 50th percentile or the HPL. The two MCOs ranked lower than the LPL of 2.9 percent, and the PCPP and FFS populations exceeded the LPL by more than 15 percentage points.

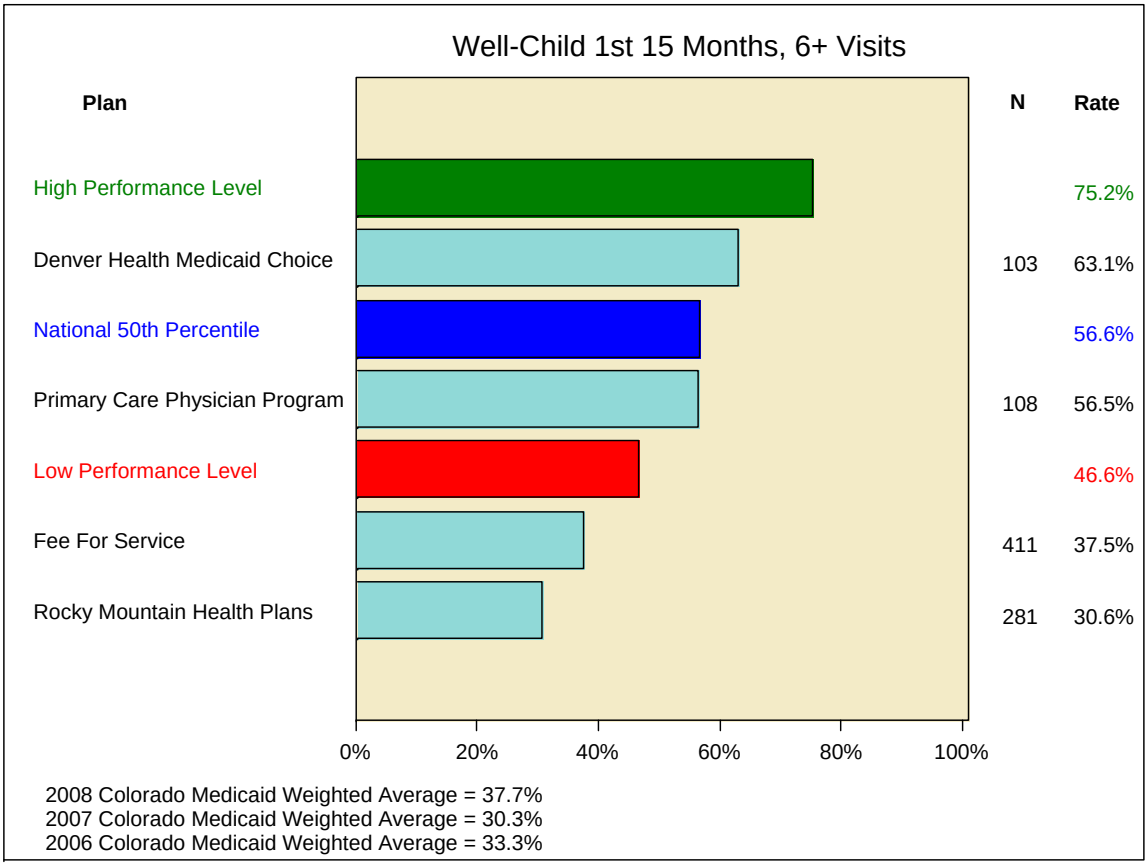
The 2008 Colorado Medicaid weighted average remained fairly stable compared to the 2007 weighted average, which decreased by 6 percentage points from the 2006 weighted average.

HEDIS Specification: Well-Child Visits in the First 15 Months of Life—Six or More Visits

Well-Child Visits in the First 15 Months of Life—Six or More Visits calculates the percentage of enrolled members who turned 15 months of age during the measurement year, who were continuously enrolled in the Colorado plan from 31 days of age, and who received six or more visits with a PCP during their first 15 months of life.

Plan Ranking: Well-Child Visits in the First 15 Months of Life—Six or More Visits

Figure 3-11—Colorado Medicaid HEDIS 2008
Plan Ranking:
Well-Child Visits in the First 15 Months of Life—Six or More Visits



None of the plans exceeded the HPL, and only one performed better than the national HEDIS 2007 Medicaid 50th percentile. The FFS population and RMHP both ranked below the LPL, indicating an opportunity to improve the number of children receiving 6 or more well-child visits. The 2008 Colorado Medicaid weighted average did not reach the national 50th percentile of 56.6 percent.

The 2008 weighted average increased by 7.4 percentage points compared to the 2007 weighted average. This increase was statistically significant.

Well-Child Visits in the Third, Fourth, Fifth, and Sixth Years of Life

AAP recommends annual well-child visits for children between 2 and 6 years of age. These checkups during the preschool and early school years help clinicians detect vision, speech, and language problems as early as possible. Early intervention in these areas can improve a child's communication skills and reduce language and learning problems.

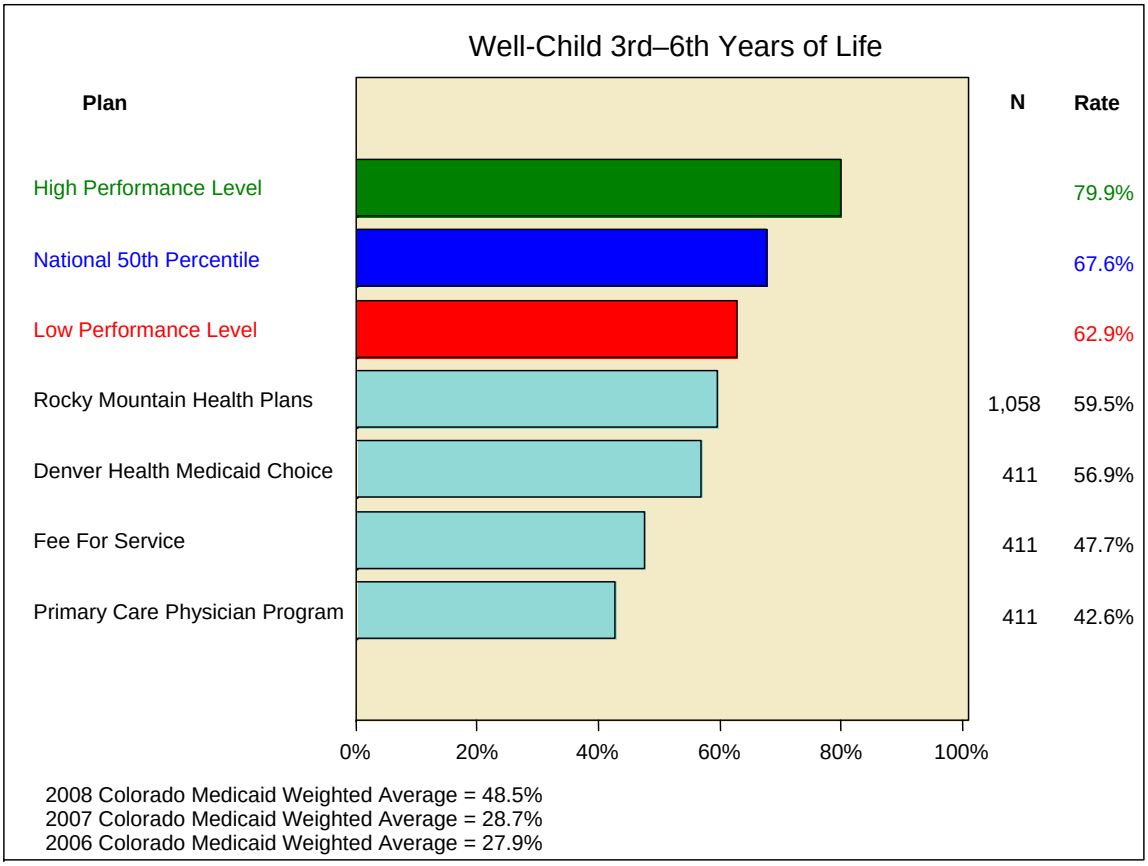
The following pages analyze the performance profile and plan rankings for the Colorado MCOs, FFS, and PCPP for *Well-Child Visits in the Third, Fourth, Fifth, and Sixth Years of Life*.

HEDIS Specification: Well-Child Visits in the Third, Fourth, Fifth, and Sixth Years of Life

This measure, *Well-Child Visits in the Third, Fourth, Fifth, and Sixth Years of Life,* reports the percentage of members who were 3, 4, 5, or 6 years of age during the measurement year; who were continuously enrolled during the measurement year; and who received one or more well-child visits with a PCP during the measurement year.

Plan Ranking: Well-Child Visits in the Third, Fourth, Fifth, and Sixth Years of Life

Figure 3-12—Colorado Medicaid HEDIS 2008
Plan Ranking:
Well-Child Visits in the Third, Fourth, Fifth, and Sixth Years of Life



None of the plans' rates ranked above any of the national comparison data. The two MCOs ranked above the 2008 Colorado Medicaid weighted average of 48.5 percent.

The 2008 weighted average improved by nearly 20 percentage points compared to the 2007 weighted average. This increase was statistically significant.

Adolescent Well-Care Visits

Among adolescents, unintentional injuries, homicide, and suicide are the leading causes of death. Sexually transmitted diseases (STDs), substance abuse, pregnancy, and antisocial behavior are important causes of physical, emotional, and social problems. The effort to promote healthy adolescent development and behavioral choices can improve the health of adults as well as adolescents. The AMA's Guidelines for Adolescent Preventive Services (GAPS) and AAP guidelines both recommend comprehensive annual health care visits for adolescents.

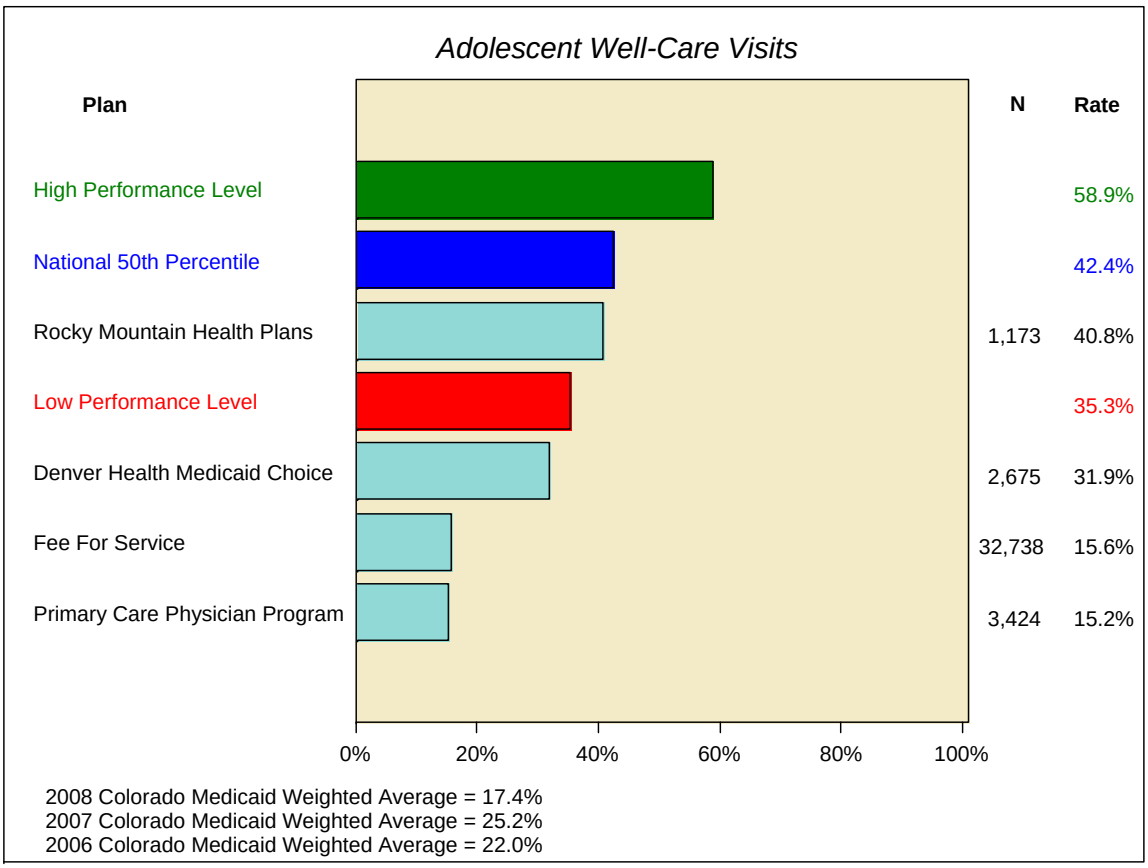
The following pages analyze the performance profile and plan rankings for the Colorado MCOs and FFS program for *Adolescent Well-Care Visits*.

HEDIS Specification: Adolescent Well-Care Visits

This measure reports the percentage of enrolled members who were 12 to 21 years of age during the measurement year, who were continuously enrolled during the measurement year, and who had at least one comprehensive well-care visit with a PCP or an obstetrician/gynecologist (OB/GYN) during the measurement year.

Plan Ranking: Adolescent Well-Care Visits

Figure 3-13—Colorado Medicaid HEDIS 2008
Plan Ranking:
Adolescent Well-Care Visits



None of the plans' rates or the 2008 Colorado Medicaid weighted average performed above the national HEDIS 2007 Medicaid 50th percentile of 42.4 percent. DHMC, FFS, and PCPP all ranked below the LPL of 35.3 percent.

The 2008 Colorado Medicaid weighted average of 17.4 percent declined by nearly 8 percentage points compared to the 2007 weighted average.

Follow-Up Care for Children Prescribed ADHD Medication

Attention deficit/hyperactivity disorder (ADHD) is a prominent behavioral disorder in the United States. In 2004, 7 percent of children 3 to 17 years of age nationwide were diagnosed with ADHD.[3-14] The disorder, particularly when untreated, can adversely affect the social lives and academic performance of those who have it, and can increase the likelihood that they will use alcohol and tobacco.[3-15]

Treatment for ADHD can be very effective; 70 to 90 percent of children diagnosed with ADHD respond to drug treatment for the disorder without major side effects.[3-16] Follow-up care and surveillance are important components of successful ADHD treatment. In terms of economic costs, an estimated $2 billion to $11 billion is spent annually in the United States treating children with ADHD.[3-17] Children who are on medication for ADHD visit emergency departments less frequently than those who are not on medication, and those visits are less costly.[3-18] The National Survey of Children's Health found that in 2003, 2.4 percent of Colorado children were taking medication for ADD/ADHD, which was lower than the national rate of 3.8 percent.[3-19]

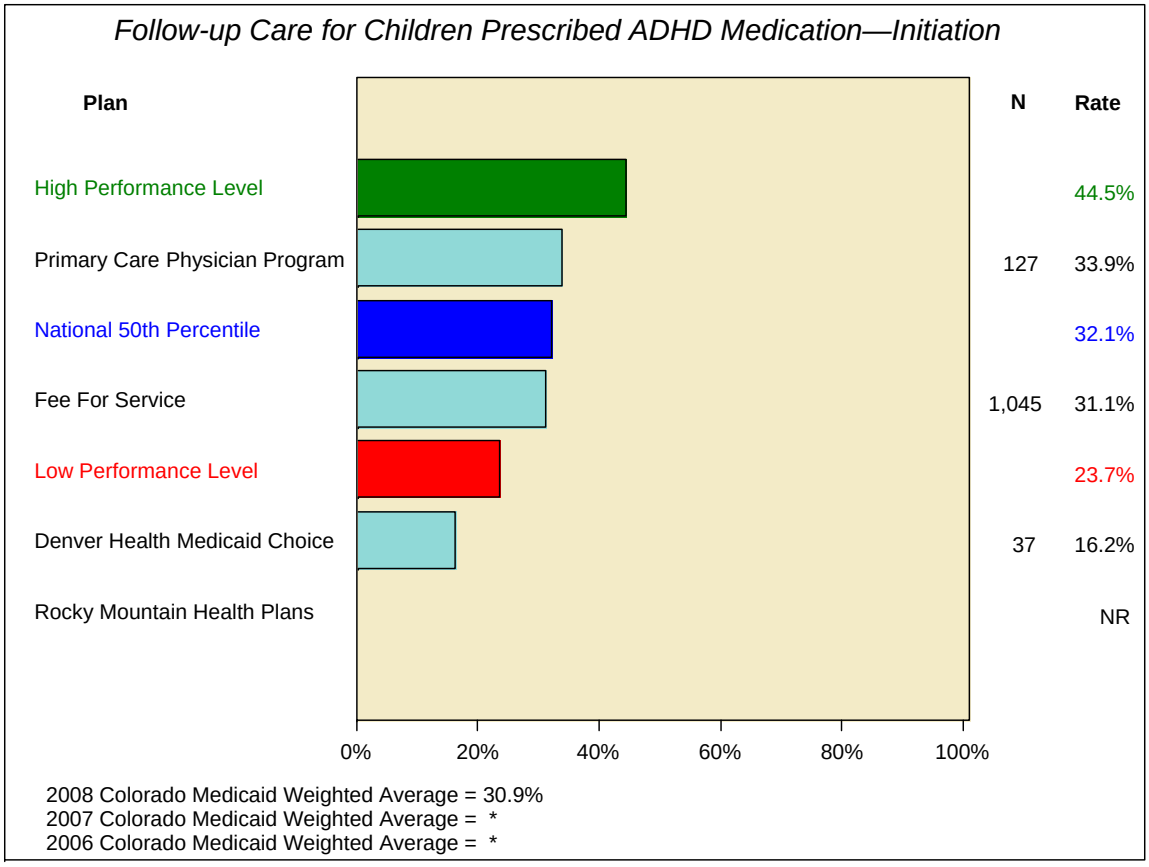
HEDIS Specification: Follow-Up Care for Children Prescribed ADHD Medication

This measure reports the percentage of children newly prescribed ADHD medication who have at least three follow-up care visits within a 10-month period (*Continuation*), one of which is within 30 days of when the first ADHD medication was dispensed (*Initiation*). Two rates are reported: the *Initiation* phase and the *Continuation* phase.

[3-14] Child Trends DataBank. ADHD. Available at: http://www.childtrendsdatabank.org/indicators/76ADHD.cfm. Accessed on July 24, 2008.
[3-15] Ibid.
[3-16] National Committee for Quality Assurance. The State of Health Care Quality, 2007. Available at: http://www.ncqa.org/Portals/0/Publications/Resource%20Library/SOHC/SOHC_07.pdf. Accessed on July 22, 2008.
[3-17] Ibid.
[3-18] Leibson CL, et al. Emergency department use and costs for youth with attention-deficit/hyperactivity disorder: associations with stimulant treatment. *Ambulatory Pediatrics*. 2006 Jan-Feb;6(1):45–53.
[3-19] National Survey of Children's Health. Use of medication for ADD or ADHD—children/youth ages 2–17. Available at: http://nschdata.org/content/Default.aspx. Accessed on July 24, 2008.

Plan Ranking: Follow-Up Care for Children Prescribed ADHD Medication—Initiation

Figure 3-14—Colorado Medicaid HEDIS 2008
Plan Ranking:
Follow-Up Care for Children Prescribed ADHD Medication—Initiation

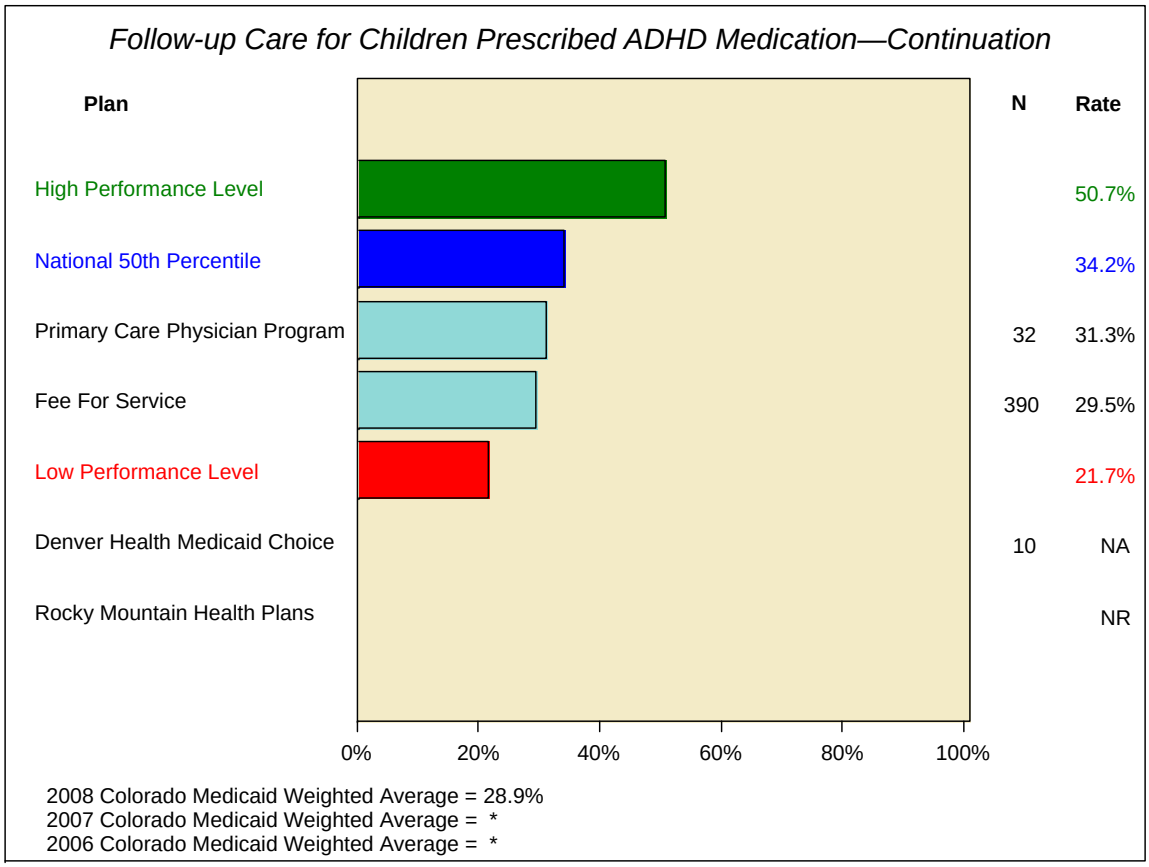


*Weighted averages were not available since the measure was not audited in FY 2006 and 2007.

Only PCPP performed above the national HEDIS 2007 Medicaid 50th percentile rate of 32.1 percent; however, the rate did not exceed the HPL. The 2008 Colorado Medicaid weighted average of 30.9 percent performed below the national HEDIS 2007 Medicaid 50th percentile. DHMC ranked below the LPL of 23.7 percent, and RMHP reported an *NR* for this measure, indicating either the rate was biased or the plan chose not to report a rate.

Plan Ranking: Follow-Up Care for Children Prescribed ADHD Medication—Continuation

Figure 3-15—Colorado Medicaid HEDIS 2008
Plan Ranking:
Follow-Up Care for Children Prescribed ADHD Medication—Continuation



*The weighted averages were not available since the measure was not audited in FY 2006 and 2007.

None of the plans ranked above the HPL or the national HEDIS 2007 Medicaid 50th percentile rate of 34.2 percent. The 2008 Colorado Medicaid weighted average of 28.9 percent ranked below the national 50th percentile but exceeded the LPL. DHMC reported an *NA* for this measure, indicating that it had a denominator of less than 30, and RMHP reported an *NR* for this measure, indicating that either the rate was biased or the plan chose not to report a rate.

Pediatric Care Findings and Recommendations

Overall performance in the Pediatric Care dimension is an area where the plans could focus more quality improvement efforts. The rates for these measures ranged from below average to above average, with rates for some of the *Childhood Immunization Status* antigens exceeding the HPL.

All of the *Childhood Immunization Status* measures showed statistically significant improvement from the previous year; however, none of the 2008 Colorado weighted averages exceeded the national HEDIS 2007 Medicaid 50th percentile, which represents an opportunity for improvement. The FFS and PCPP populations demonstrated the largest increases in *Childhood Immunization Status* rates, which could be attributed to using data from the Colorado Immunization registry to supplement the plans' data. This data source was used to provide a more complete picture of the actual immunizations provided than may have been previously captured for HEDIS reporting. Another factor that could have led to an increase in these rates was the decision to refresh the HEDIS data prior to the final reporting of HEDIS rates. This data refresh was performed to account for any claims/encounter lags that the FFS and PCPP programs might have been experiencing. By performing a data refresh of the encounter/claims data, the rates produced were more accurate and complete.

Performance for the well-care visit measures was varied and presented areas for targeted improvement. The weighted average for *Well-Child Visits in the First 15 Months of Life—Zero Visits* showed no change from 2007 to 2008. None of the plans performed better than the national HEDIS 2007 Medicaid 50th percentile, and the FFS and PCPP populations performed below the LPL. For *Well-Child Visits in the First 15 Months of Life—Six or More Visits* none of the plans performed above the HPL and two ranked below the LPL. The 2008 weighted average for this measure improved by 7 percentage points and was statistically significant; however, it was still below the national HEDIS 2007 Medicaid 50th percentile of 56.6 percent. The 2008 weighted average for *Well-Child Visits in the Third, Fourth, Fifth, and Sixth Years of Life* had a statistically significant increase of 20 percentage points compared to the 2007 weighted average; however, despite this significant improvement, all of the plans performed below the LPL of 62.9 percent. For the *Adolescent Well-Care Visits* measure, the 2008 weighted average decreased from the 2007 weighted average, and none of the plans' rates met or exceeded the national HEDIS 2007 Medicaid 50th percentile.

Follow-Up Care for Children Prescribed ADHD Medications was a new measure reported by the Colorado plans for 2008 and had no previous years' data for trending performance. This measure is reported in two rates: one rate represents the initiation of follow-up care and the other represents the continuation of follow-up care. The weighted averages for both *Initiation* and *Continuation* were below the national HEDIS 2007 Medicaid 50th percentiles, and one plan reported *NRs* for these measures, indicating that either the rate was materially biased or the plan chose not to report the rate.

The plans' performance on the Pediatric Care measures showed some improvement over previous years, but their performance also demonstrated opportunities for improvement, with all of the weighted averages for these measures performing below the national HEDIS 2007 Medicaid 50th percentile.

Recommendations for improving rates in this dimension include developing and implementing interventions that target low-performing providers, performing educational visits with PCPs, encouraging providers to perform well-child exams when children present for a sick visit, Web notifications and/or written reminders to PCPs for children who need well-child services, and additional PCP incentives for well-child services that were billed. The plans could focus interventions on provider education about the HEDIS measures to ensure that providers are aware of the components for each measure. Higher-performing plans should be encouraged to share best practices with other plans that are not performing as well.

In addition, the plans should evaluate cases that are defined as missed opportunities for immunizations by evaluating noncompliant cases (children in the eligible population who did not meet numerator compliance) and try to determine the reasons they were noncompliant. Barriers to improvement should be identified and evaluated in terms of greatest impact. A good barrier analysis can assist in targeting interventions that would bring about the most effective results. Areas to consider include:[3-20]

- Availability of vaccines—Are vaccine services readily available and patient costs minimized?
- Assessment of vaccination status—Does the provider review the patient's vaccination history during each encounter?
- Effective communication about vaccine benefits and risks—Are parents/guardians appropriately educated about the benefits and risks of vaccines? Is this communication culturally and linguistically appropriate?
- Proper storage and administration of vaccines and documentation of vaccinations—Do providers receive continuous education and protocols on proper vaccine use, storage, and reporting?
- Implementation of strategies to improve vaccination coverage—Are systems in place to remind providers and patients when vaccinations are due? Is an assessment of the medical record for vaccination coverage completed?

Finally, the plans should consider implementing established best practices as a guide to improving immunization rates. The following list contains examples of several best practices:

- The staging of a series of statewide educational events involving children during National Infant Immunization Week by the California Distance Learning Health Network and the California Coalition for Childhood Immunization. The campaign includes four main resources: a campaign kit, a media tool kit, a press packet, and toys.[3-21]
- Creation of a parent notebook that allows parents to track immunizations.
- Meeting with high-volume providers to enhance the relationship between the plan and providers, review the importance of complete immunization records, and develop workable reporting procedures.
- Written vaccination protocols that are up to date and accessible at all locations where vaccines are administered.[3-22]
- The addition of a question about immunization status to any welcome calls made to new members.

[3-20] Centers for Disease Control and Prevention. Recommendations and Guidelines: Revised Standards for Immunization Practices. April 18, 2006. Available at: http://www.cdc.gov/vaccines/recs/vac-admin/rev-immz-stds.htm. Accessed on September 11, 2007.
[3-21] American Academy of Pediatrics. Immunization Initiatives. Available at: http://www.cispimmunize.org/pro/pro_main.html.
[3-22] American Academy of Pediatrics. Maintaining Standards of Excellence. Available at: http://www.cispimmunize.org/pro/pro_main.html

Introduction

Access to care is an essential component of the effort to diagnose and treat health problems and to increase the quality and duration of healthy life. Establishing a relationship with a PCP is necessary to improve access to care for both adults and children. To increase access to quality care, the public health system, plans, and health care researchers focus on identifying barriers to existing health services and eliminating disparities. Through this process, plans can increase preventive care and successful disease management.

The Center for Studying Health System Change (HSC) reported an increase in access to needed medical care from 2001 to 2003 among Americans.[4-1] Statistics regarding access to care often vary considerably by race. The CDC reports that during 2005, visits to office-based physicians were higher for white persons compared with black and Hispanic persons (355.3 versus 243.4 and 234.5 per 100 persons, respectively).[4-2] The visit rate for Asians was 263.6 visits per 100 persons. A priority of Healthy People 2010 is to address health disparities related to gender, race, and socio-economic status.

The type of insurance coverage (or lack of insurance) has a significant impact on the ability to obtain timely access to care. Nationwide, individuals with Medicaid coverage are less likely to receive an appointment than those with private coverage (34.2 percent for Medicaid compared with 63.3 percent for private insurance).[4-3]

The following pages provide detailed analysis of performance by the Colorado MCOs and FFS program.

The Access to Care dimension encompasses the following measures:

- ***Prenatal and Postpartum Care***
  - *Prenatal and Postpartum Care—Timeliness of Prenatal Care*
  - *Prenatal and Postpartum Care—Postpartum Care*

- ***Adults' Access to Preventive/Ambulatory Health Services***
  - *Adults' Access to Preventive/Ambulatory Health Services—Ages 20 to 44 Years*
  - *Adults' Access to Preventive/Ambulatory Health Services—Ages 45 to 64 Years*
  - *Adults' Access to Preventive/Ambulatory Health Services—Ages 65 Years and Older*

[4-1] Strunk BC, Cunningham PJ. Trends in Americans' Access to Needed Medical Care, 2001–2003. Center for Studying Health System Change: Tracking Report No. 10. August 2004. Available at: http://hschange.org/CONTENT/701/?topic=topic02. Accessed on July 24, 2008.

[4-2] Centers for Disease Control and Prevention. National Ambulatory Medical Care Survey: 2005 Summary. Available at: http://www.cdc.gov/nchs/data/ad/ad387.pdf. Accessed on August 12, 2008.

[4-3] Asplin BR, Rhodes KV, Levy H, et al. Insurance Status and Access to Urgent Ambulatory Care Follow-up Appointments. Journal of the American Medical Association. 2005; 294:1248–1254. Available at: http://jama.ama-assn.org/cgi/content/abstract/294/10/1248?maxtoshow=&HITS=10&hits. Accessed on July 24, 2008.

Prenatal and Postpartum Care

More than 4 million infants are born in the United States each year. Approximately 509,000 of these infants are born preterm, and another 332,000 are of low birth weight.[4-4] Low birth weight increases the risk for neuron developmental handicaps, congenital abnormalities, and respiratory illness compared to infants with a normal birth weight. With comprehensive prenatal care, the incidence of low birth weight and infant mortality can be reduced. Additionally, women who do not receive prenatal care are three to four times more likely to experience fatal complications related to pregnancy than those who receive prenatal care.[4-5]

In 2005, women who received early prenatal care (beginning in the first trimester) accounted for 80.1 percent of live births in Colorado, while 4.5 percent of infants were born to mothers who received late (beginning in the third trimester) or no prenatal care.[4-6]

While care strategies tend to emphasize the prenatal period, appropriate care during the postpartum period can also prevent complications and deaths. For example, more than 60 percent of maternal deaths occur during the postpartum period.[4-7] In financial terms, every dollar spent on prenatal care creates an estimated savings of $3.33 for postpartum care and $4.63 in long-term morbidity costs.[4-8] Furthermore, the cost of hospitalizations for pregnancy complications is more than $1 billion per year, which includes more than two million hospital days of care.[4-9]

This measure examines whether or not care is available to members when needed and whether that care is provided in a timely manner. The measure consists of two numerators:

- *Prenatal and Postpartum Care—Timeliness of Prenatal Care*
- *Prenatal and Postpartum Care—Postpartum Care*

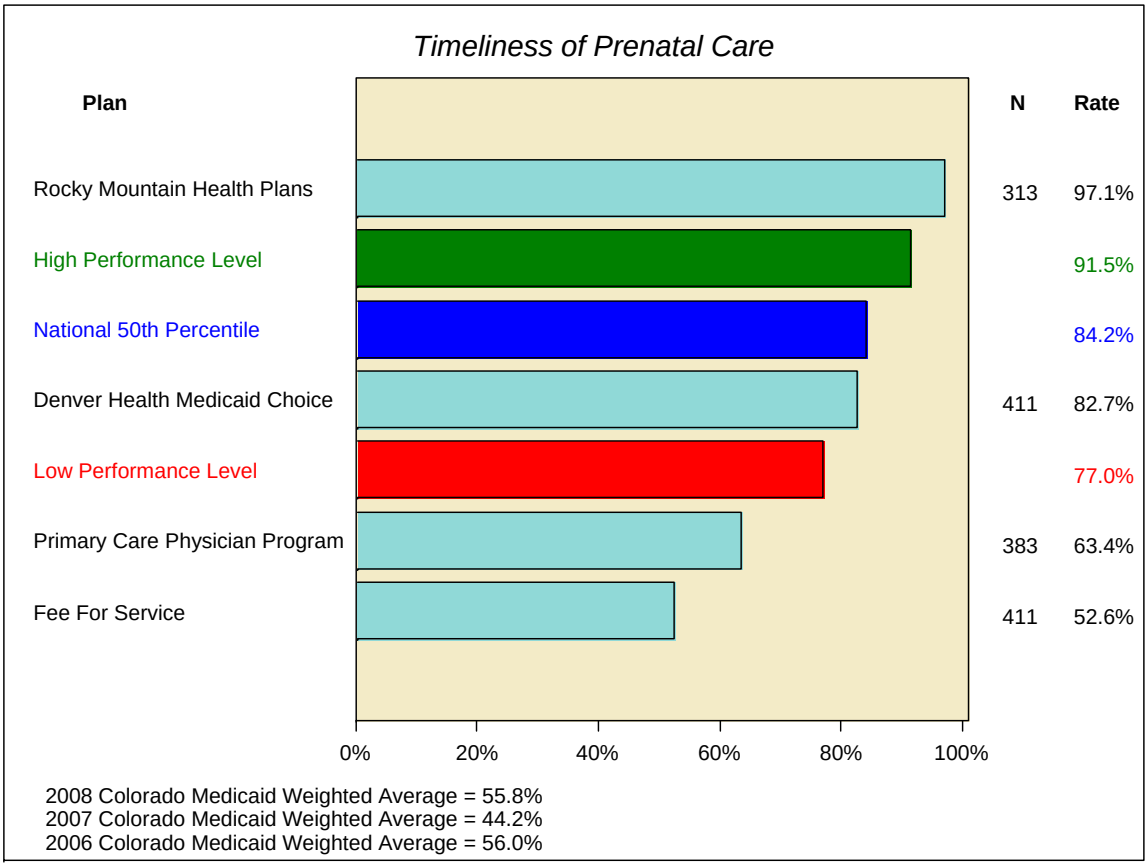
[4-4] National Committee for Quality Assurance. The State of Health Care Quality, 2007. Available at: http://www.ncqa.org/Portals/0/Publications/Resource%20Library/SOHC/SOHC_07.pdf. Accessed on July 24, 2008.
[4-5] Ibid.
[4-6] March of Dimes. Colorado Prenatal Care Overview. Available at: http://www.marchofdimes.com/peristats. Accessed on July 24, 2008.
[4-7] Family Health International. Better Postpartum Care Saves Lives. Available at: http://www.fhi.org/en/RH/Pubs/Network/v17_4/postpartum.htm. Accessed on July 24, 2008.
[4-8] National Committee for Quality Assurance. The State of Health Care Quality, 2007. Available at: http://www.ncqa.org/Portals/0/Publications/Resource%20Library/SOHC/SOHC_07.pdf. Accessed on July 24, 2008.
[4-9] Ibid.

HEDIS Specification: Prenatal and Postpartum Care—Timeliness of Prenatal Care

The *Timeliness of Prenatal Care* measure calculates the percentage of women who delivered a live birth between November 6 of the year prior to the measurement year and November 5 of the measurement year, who were continuously enrolled at least 45 days prior to delivery through 56 days after delivery, and who received a prenatal care visit as a member of the plan in the first trimester or within 42 days of enrollment in the plan.

Plan Ranking: Prenatal and Postpartum Care—Timeliness of Prenatal Care

Figure 4-1—Colorado Medicaid HEDIS 2008
Plan Ranking:
Prenatal and Postpartum Care—Timeliness of Prenatal Care



RMHP ranked above the HPL of 91.5 percent for this measure. The other MCO, FFS, and PCPP all ranked below the national HEDIS 2007 Medicaid 50th percentile, with FFS and PCPP falling below the LPL of 77.0 percent. The 2008 Colorado Medicaid weighted average of 55.8 percent also ranked below the LPL, indicating room for improvement for this measure.

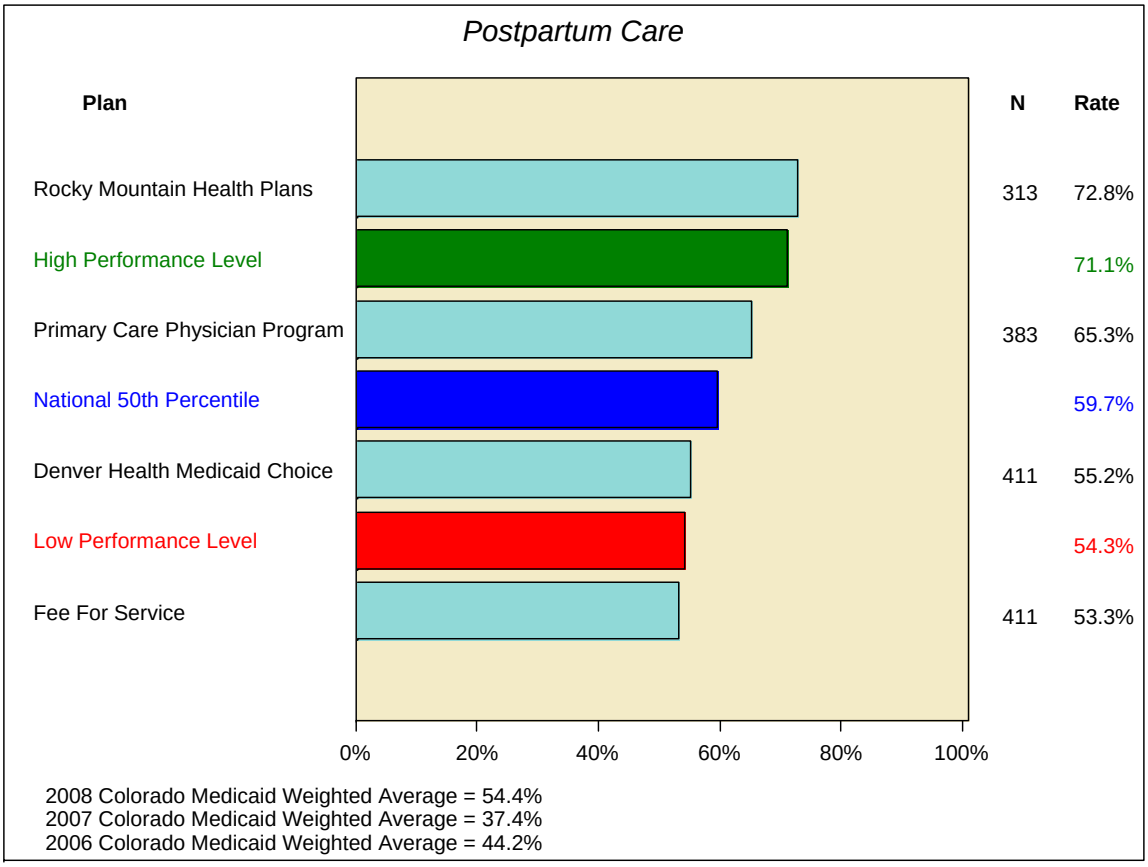
The 2008 weighted average improved by 11.6 percentage points compared to the 2007 weighted average.

HEDIS Specification: Prenatal and Postpartum Care—Postpartum Care

The *Postpartum Care* measure reports the percentage of women who delivered a live birth between November 6 of the year prior to the measurement year and November 5 of the measurement year, who were continuously enrolled at least 45 days prior to delivery through 56 days after delivery, and who received a postpartum visit on or between 21 days and 56 days after delivery.

Plan Ranking: Prenatal and Postpartum Care—Postpartum Care

Figure 4-2—Colorado Medicaid HEDIS 2008
Plan Ranking:
Prenatal and Postpartum Care—Postpartum Care



RMHP's rate of 72.8 percent exceeded the HPL. The PCPP rate performed higher than the national HEDIS 2007 Medicaid 50th percentile of 59.7 percent; however, none of the other plans or the weighted average did. The FFS rate of 53.3 percent ranked below the LPL of 54.3 percent.

The 2008 Colorado Medicaid weighted average of 54.4 percent improved by 17 percentage points compared to the 2007 average. This improvement was statistically significant.

Adults' Access to Preventive/Ambulatory Health Services

Preventive care can significantly and positively affect many causes of disease and death, but to realize these benefits, people must have access to effective services. A shortage of health care providers or facilities is a basic limitation that may impact access, but other factors such as lack of adequate health insurance, cultural and language differences, and lack of knowledge or education can also limit access.

Lack of a usual source of medical care can be a barrier to accessing health care. In 2004–2005, about 10 percent of U.S. adults from 45–64 years of age did not have a usual source of health care.[4-10] Transportation can be an issue, particularly for those with lower incomes. Families with incomes below 100 percent of the poverty level cited lack of transportation for delaying health care at 10 times the rate of families with incomes of 200 percent or more of the poverty level.[4-11] Lack of health insurance is also a barrier to access. Those who do not have insurance are less likely to have a source of medical care or a recent health care visit than those with insurance. In Colorado, managed care plans assign members a provider, which encourages members to access care from the same source at each visit. The FFS program, however, does not assign members a provider, leading members to access care from a different source at each visit. The assignment of a provider can impact a member's access to care.

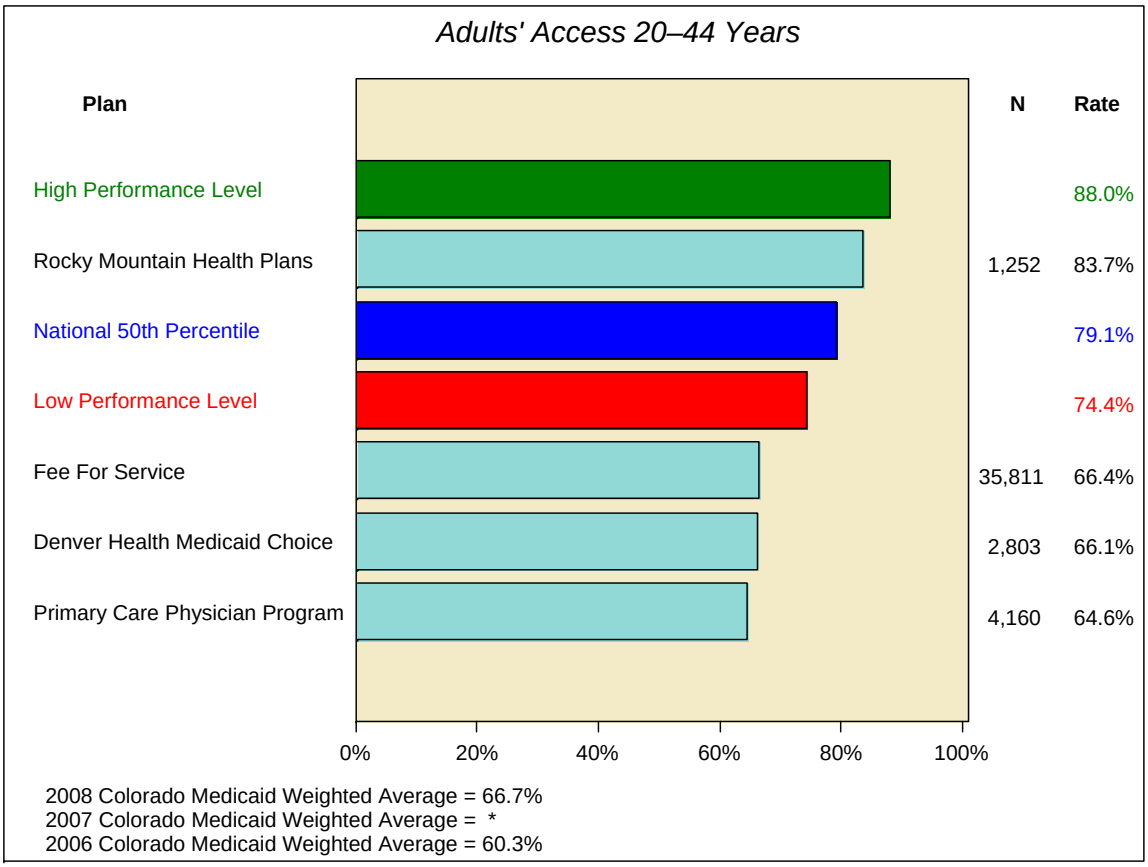
HEDIS Specification: Adults' Access to Preventive/Ambulatory Health Services —Ages 20 to 44 Years

The *Adults' Access to Preventive/Ambulatory Health Services—Ages 20 to 44 Years* measure calculates the percentage of adults 20 to 44 years of age who were continuously enrolled during the measurement year and who had an ambulatory or preventive care visit during the measurement year.

[4-10] National Center for Health Statistics. Health, United States, 2007. Available at: http://www.cdc.gov/nchs/data/hus/hus07.pdf. Accessed on August 12, 2008.
[4-11] Ibid.

Plan Ranking: Adults' Access to Preventive/Ambulatory Health Services —Ages 20 to 44 Years

Figure 4-3—Colorado Medicaid HEDIS 2008
Plan Ranking:
Adults' Access to Preventive/Ambulatory Health Services—Ages 20 to 44 Years



*The weighted average is not available since the measure was not audited during FY 2007

None of the plans' rates met or exceeded the HPL of 88.0 percent. RMHP performed higher than the national HEDIS 2007 Medicaid 50th percentile. All other plans and the 2008 Colorado Medicaid weighted average ranked below the LPL of 74.4 percent.

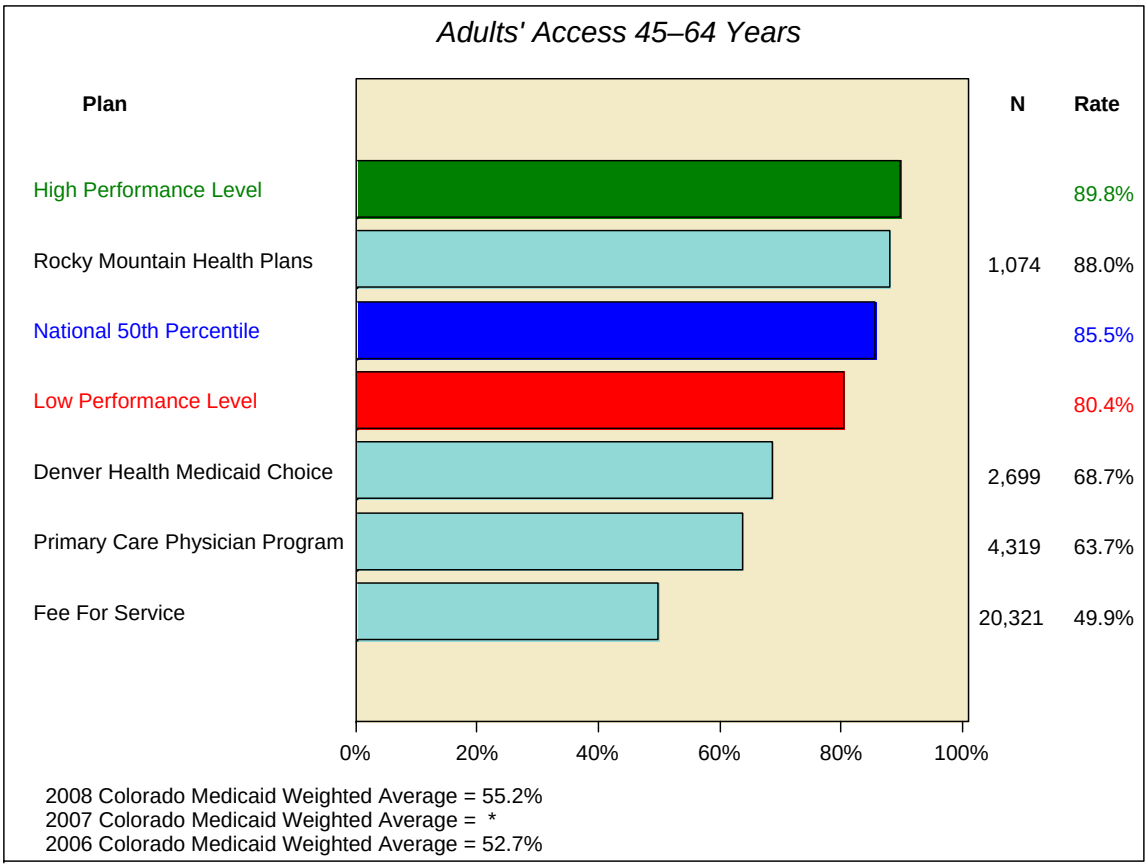
The 2008 Colorado Medicaid weighted average of 66.7 percent improved by 6.4 percentage points compared to the 2006 weighted average.

HEDIS Specification: Adults' Access to Preventive/Ambulatory Health Services —Ages 45 to 64 Years

The *Adults' Access to Preventive/Ambulatory Health Services—Ages 45 to 64 Years* measure calculates the percentage of adults 45 to 64 years of age who were continuously enrolled during the measurement year and who had an ambulatory or preventive care visit during the measurement year.

Plan Ranking: Adults' Access to Preventive/Ambulatory Health Services —Ages 45 to 64 Years

Figure 4-4—Colorado Medicaid HEDIS 2008
Plan Ranking:
Adults' Access to Preventive/Ambulatory Health Services—Ages 45 to 64 Years



*The weighted average was not available since the measure was not audited during FY 2007

None of the plans' rates met or exceeded the HPL of 89.8 percent. RMHP performed better than the national HEDIS 2007 Medicaid 50th percentile of 85.5 percent. All other plans and the 2008 Colorado Medicaid weighted average ranked considerably lower than the LPL of 80.4 percent.

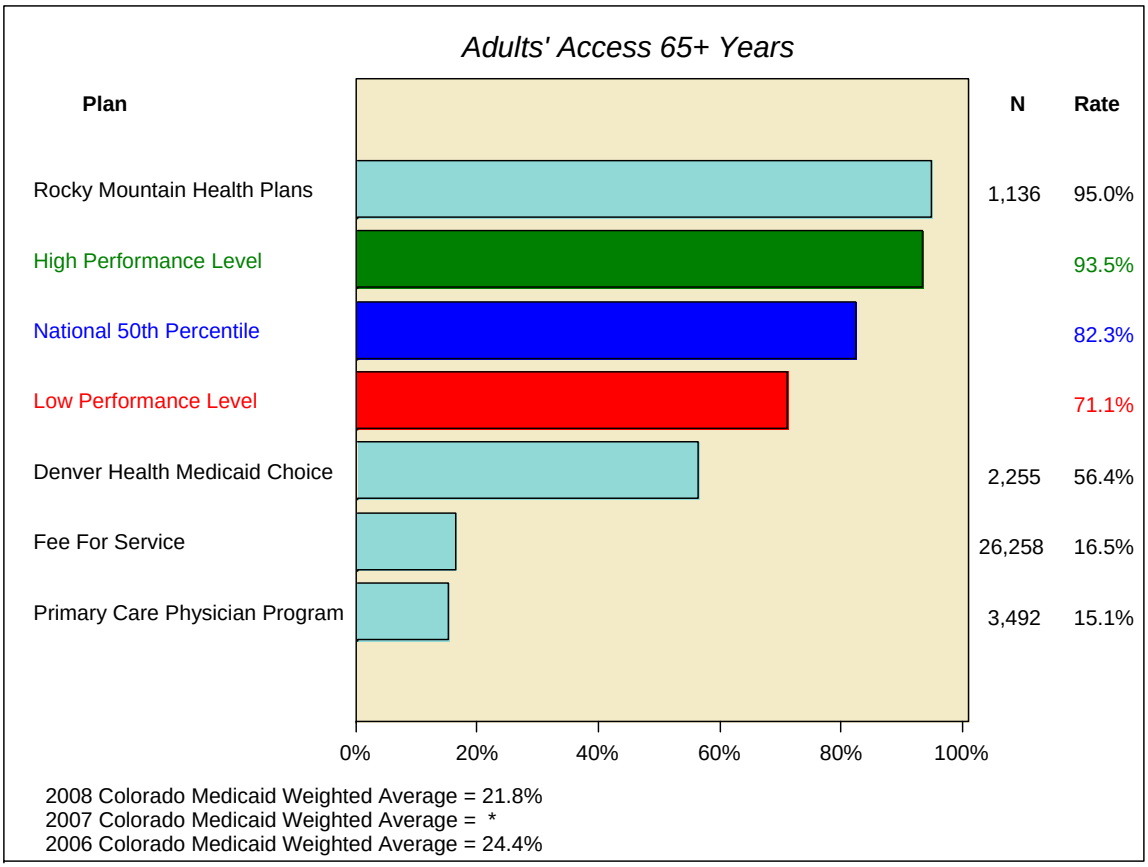
The 2008 Colorado Medicaid weighted average of 55.2 percent improved by 2.5 percentage points compared to the 2006 weighted average.

HEDIS Specification: Adults' Access to Preventive/Ambulatory Health Services —Ages 65 Years and Older

The *Adults' Access to Preventive/Ambulatory Health Services—Ages 65 Years and Older* measure calculates the percentage of adults 65 years of age and older who were continuously enrolled during the measurement year and who had an ambulatory or preventive care visit during the measurement year.

Plan Ranking: Adults' Access to Preventive/Ambulatory Health Services —Ages 65 Years and Older

Figure 4-5—Colorado Medicaid HEDIS 2008
Plan Ranking:
Adults' Access to Preventive/Ambulatory Health Services—Ages 65 Years and Older



*The weighted average was not available since the measure was not audited during FY 2007

RMHP exceeded the HPL of 93.5 percent. All of the other plans and the 2008 Colorado Medicaid weighted average ranked below the LPL of 71.1 percent.

The 2008 Colorado Medicaid weighted average of 21.8 percent decreased by 2.6 percentage points compared to the 2006 weighted average.

Access to Care Findings and Recommendations

Performance on the measures in the Access to Care dimension of care was above average to below average when compare to national standards. Opportunities exist for improving all of the measures in this section, with none of the 2008 weighted averages reaching or exceeding the national HEDIS 2007 Medicaid 50th percentile.

Performance for the *Prenatal and Postpartum Care* measures ranged from above the HPL to below the LPL. RMHP ranked above the HPL for both measures while FFS ranked below the LPL for both measures. The 2008 weighted average for the *Postpartum Care* measure had a statistically significant increase over the 2007 weighed average; however, it was still below the national HEDIS 2007 Medicaid 50th percentile rate of 59.7 percent. The *Timeliness of Prenatal Care* 2008 weighted average improved from 2007 and was also below the national 50th percentile.

Historically, administrative data used to identify individual prenatal care visits has been negatively impacted by the use of global billing practices by most plans. Plans that do not use global billing payment mechanisms to reimburse providers for prenatal care services typically have more complete administrative data, although this is not always linked to better performance. Plans that establish a mechanism to collect individual prenatal care dates of service, either through global billing documentation requirements or the use of a prenatal care monitoring program, have been successful not only in decreasing their reliance on medical record review but in actually improving performance.

Efforts to improve *Prenatal and Postpartum Care* rates in other state Medicaid programs include: identifying any barriers to accessing care such as transportation to appointments or lack of child care; patient education through brochures, newsletters, and plan Web sites on recommended guidelines for prenatal and postpartum care; physician education on standards of care and appropriate methods for submitting claims/encounter data; and member and physician incentives for compliance with standards.

Colorado plans were not required to report the *Adults' Access to Preventive/Ambulatory Health Services* HEDIS measure in 2007; therefore, no historical data for trending and comparing performance was available. This measure represents an area that needs improvement, with none of the measures' weighted averages ranking above the LPL, and only one of the four plans exceeding the 50th percentile.

The plans and the FFS program should investigate whether or not their rates for access to care reflect that members are not accessing their PCPs or that the plans are not receiving all of the encounter data from providers for members who receive capitated services. This will help the plans focus on areas for improvement specific to the where problems exist.

The plans and the FFS program should also work together to brainstorm and share other opportunities for improvement for these measures. Sharing best practices would help lower-performing plans implement interventions that are showing success in the higher-performing plans.

Introduction

Chronic illness afflicts 133 million people—nearly half of all Americans—and accounts for the vast majority of health care spending.[5-1] Chronic diseases are responsible for 7 of every 10 deaths (for a total of 1.7 million people) in the United States each year.[5-2] Chronic conditions also contribute to disability and decreased quality of life for many Americans—more than 25 million people experience limitations in activity due to these conditions.[5-3]

Although chronic conditions cause significant economic and physical hardship, they can oftentimes be prevented, delayed, or alleviated through lifestyle changes. It is estimated that the elimination of poor diet, inactivity, and smoking in the United States would prevent 80 percent of heart disease and strokes, 80 percent of Type 2 diabetes, and 40 percent of cancer.[5-4]

The measures in this section focus on how plans can help those with ongoing, chronic conditions take care of themselves, control symptoms, avoid complications, and maintain daily activities. Comprehensive programs implemented by plans can help reduce the prevalence, impact, and economic costs associated with these chronic illnesses.

The Living With Illness dimension encompasses the following measures:

- ***Cholesterol Management for Patients With Cardiovascular Conditions***
  - *Cholesterol Management for Patients With Cardiovascular Conditions—LDL-C Screening*
  - *Cholesterol Management for Patients With Cardiovascular Conditions—LDL-C Level <100*

- ***Annual Monitoring for Patients on Persistent Medications***
  - *Annual Monitoring for Patients on Persistent Medications—ACE or ARBs*
  - *Annual Monitoring for Patients on Persistent Medications—Anticonvulsants*
  - *Annual Monitoring for Patients on Persistent Medications—Digoxin*
  - *Annual Monitoring for Patients on Persistent Medications—Diuretics*
  - *Annual Monitoring for Patients on Persistent Medications—Total*

The following pages provide detailed analysis of the Colorado MCOs' and the FFS program's performance on these measures.

[5-1] Partnership for Solutions. Chronic Conditions: Making the Case for Ongoing Care. Available at: http://www.partnershipforsolutions.org/DMS/files/chronicbook2004.pdf. Accessed on August 11, 2008.
[5-2] Centers for Disease Control and Prevention. Chronic Disease Overview. Available at: http://www.cdc.gov/nccdphp/overview.htm. Accessed on August 11, 2008.
[5-3] Ibid.
[5-4] Partnership to Fight Chronic Disease. The Growing Crisis of Chronic Disease in the United States. Available at: http://www.fightchronicdisease.org/pdfs/ChronicDiseaseFactSheet.pdf. Accessed on August 11, 2008.

Cholesterol Management for Patients With Cardiovascular Conditions

In the United States, coronary heart disease was responsible for more than 450,000 deaths in 2004 and is currently the leading cause of death.[5-5] However, the death rate from coronary heart disease declined 33 percent nationwide from 1994 to 2004.[5-6] The economic impact of the disease remains significant; coronary heart disease cost the United States an estimated $151.6 billion in 2007.[5-7]

High blood cholesterol constitutes a significant risk factor for heart disease. In 2004, 6.5 million visits to doctors' offices nationwide included a cholesterol test. Approximately 17 percent of U.S. adults 20 years of age or older have high total cholesterol.[5-8] Although death from a heart-related event can be decreased by 24 to 42 percent through the use of cholesterol-lowering medication, less than half of those who qualify for this type of treatment receive it.[5-9]

According to CDC's Behavioral Risk Factor Surveillance System, in 2007, 73.8 percent of surveyed Colorado adults received a blood cholesterol test in the past five years, while 4.4 percent had not received a test in the last five years and 21.8 percent had never received a blood cholesterol test.[5-10] Also among surveyed Colorado adults, 33.5 percent who had their blood cholesterol checked were told that it was high.

HEDIS Specification: Cholesterol Management for Patients With Cardiovascular Conditions

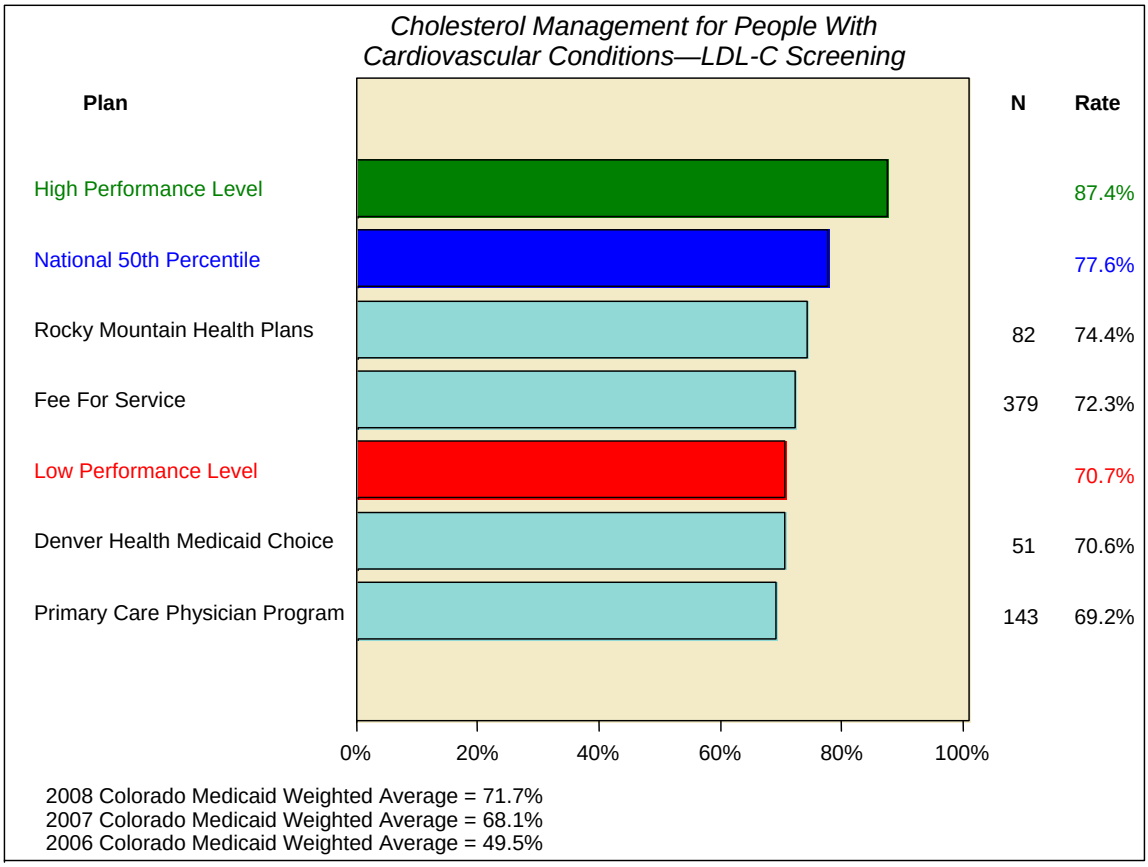
The *Cholesterol Management for Patients With Cardiovascular Conditions* measure assesses the percentage of members 18–75 years of age who were discharged alive for acute myocardial infarction (AMI), coronary artery bypass graft (CABG), or percutaneous transluminal coronary angioplasty (PTCA) from January 1 to November 1 of the year prior to the measurement year, *or* who had a diagnosis of ischemic vascular disease (IVD) during the measurement year and the year prior to measurement year, and who had each of the following during the measurement year:

- LDL-C Screening
- LDL-C Control (<100 mg/dL)

[5-5] The American Heart Association. Cardiovascular Disease Statistics. Available at: http://www.americanheart.org/presenter.jhtml?identifier=4478. Accessed on July 31, 2008.
[5-6] Ibid.
[5-7] National Committee for Quality Assurance. The State of Health Care Quality, 2007. Available at: http://www.ncqa.org/Portals/0/Publications/Resource%20Library/SOHC/SOHC_07.pdf. Accessed on July 24, 2008.
[5-8] Centers for Disease Control and Prevention. Cholesterol—Facts and Statistics. Available at: http://www.cdc.gov/Cholesterol/facts.htm. Accessed on July 31, 2008.
[5-9] National Committee for Quality Assurance. The State of Health Care Quality, 2007. Available at: http://www.ncqa.org/Portals/0/Publications/Resource%20Library/SOHC/SOHC_07.pdf. Accessed on July 24, 2008.
[5-10] Centers for Disease Control and Prevention. Behavioral Risk Factor Surveillance System. Available at: http://apps.nccd.cdc.gov/brfss/. Accessed on July 31, 2008.

Plan Ranking: Cholesterol Management for Patients With Cardiovascular Conditions—LDL-C Screening

Figure 5-1—Colorado Medicaid HEDIS 2008
Plan Ranking:
Cholesterol Management for Patients With Cardiovascular Conditions—LDL-C Screening

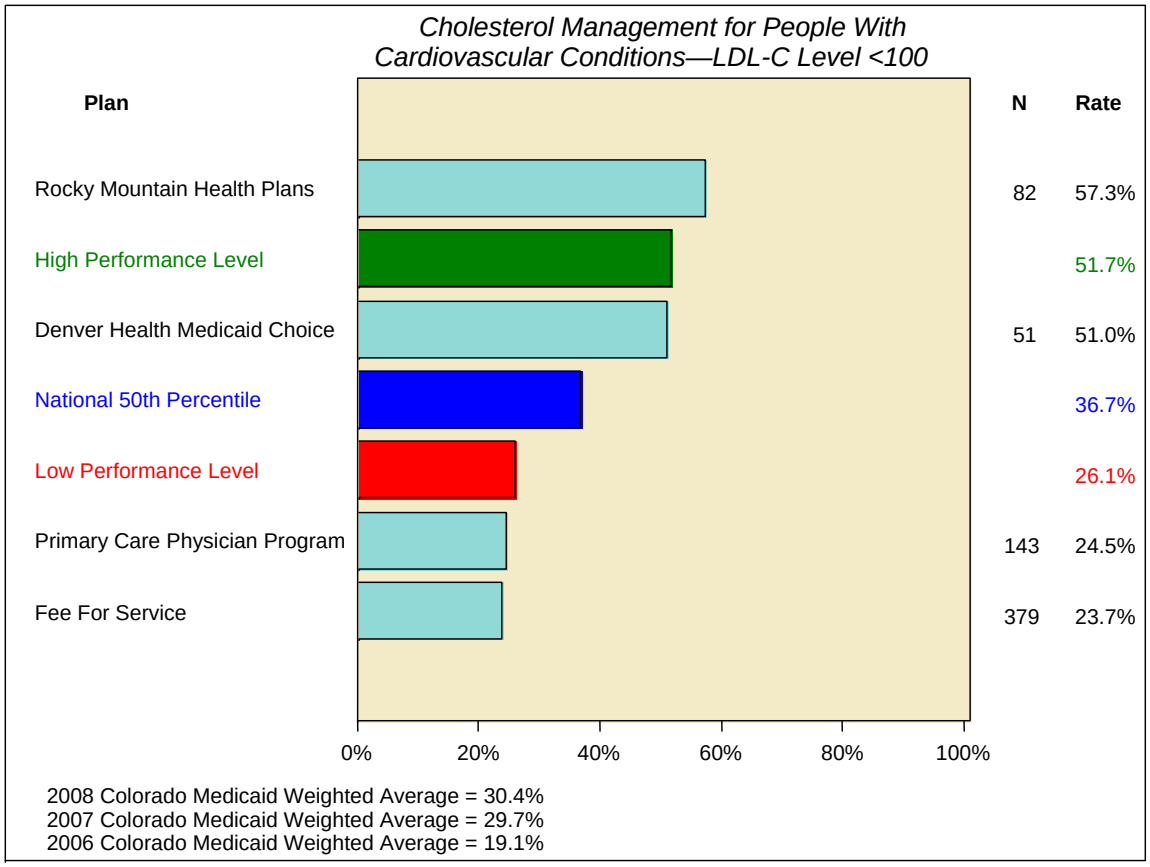


None of the plans or the 2008 Colorado Medicaid weighted average ranked above the national HEDIS 2007 Medicaid 50th percentile of 77.6 percent. DHMC and PCPP ranked below the LPL of 70.7 percent.

The 2008 Colorado Medicaid weighted average of 71.7 percent improved by 3.6 percentage points compared to the 2007 weighted average.

Plan Ranking: Cholesterol Management for Patients With Cardiovascular Conditions—LDL-C Level <100

Figure 5-2—Colorado Medicaid HEDIS 2008
Plan Ranking:
Cholesterol Management for Patients With Cardiovascular Conditions—LDL-C Level <100



RMHP's rate of 57.3 percent exceeded the HPL. DMHC performed better than the national HEDIS 2007 Medicaid 50th percentile. FFS and PCPP performed below the national 50th percentile of 36.7 percent, the 2008 Colorado Medicaid weighted average of 30.4 percent, and the LPL of 26.1 percent.

The 2008 weighted average remained stable compared to the 2007 weighted average.

Annual Monitoring for Patients on Persistent Medications

Adverse drug events cause approximately 1 in 400 people to visit an emergency department every year in the United States; about 1 in 6 of those patients are hospitalized.[5-11] When patients use certain medications for long periods of time, they are at higher risk for experiencing side effects. But when clinicians regularly monitor patients' medications, they can adjust dosages as needed to better prevent adverse events. In the United States, the cost of treating problems caused by the misuse of medications in the ambulatory setting is approximately $85 billion per year.[5-12]

HEDIS Specification—Annual Monitoring for Patients on Persistent Medications

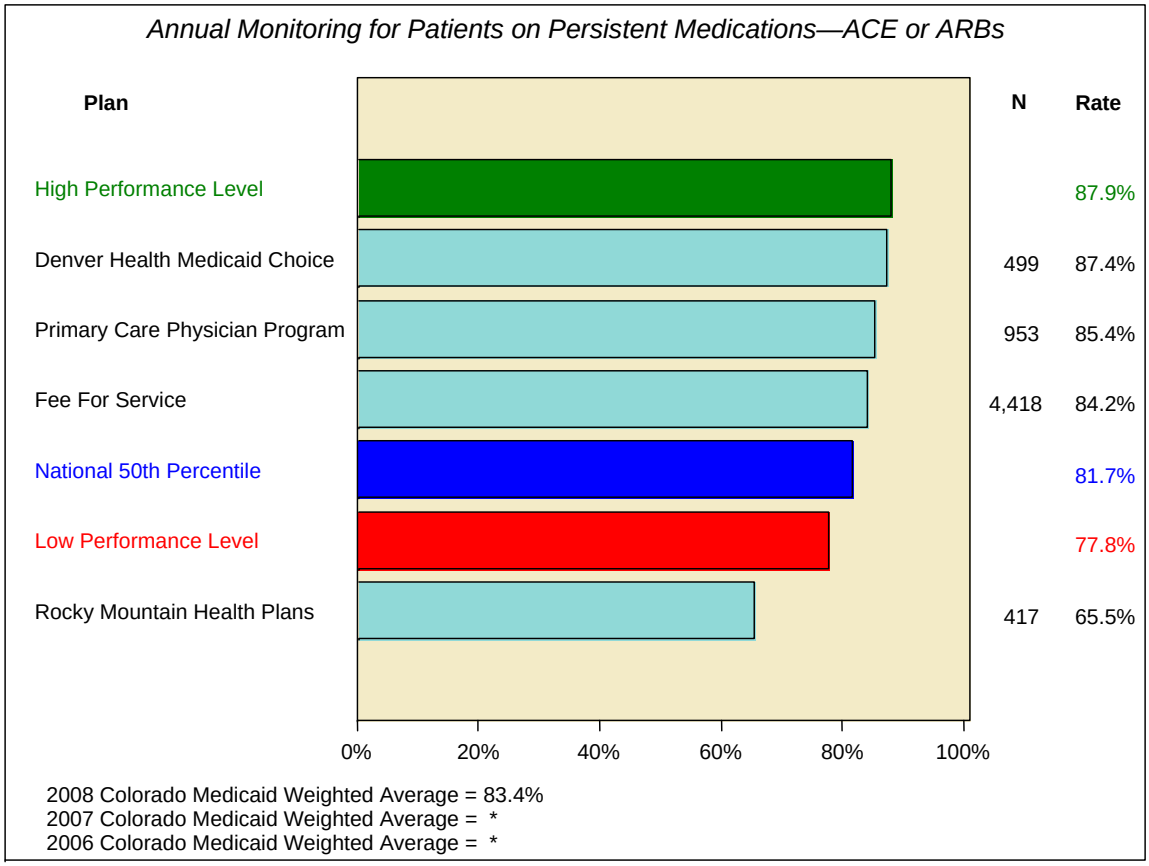
The *Annual Monitoring for Patients on Persistent Medications* measure assesses the percentage of members 18 years of age and older who received at least a 180-day supply of ambulatory medication therapy for a select therapeutic agent during the measurement year and at least one therapeutic monitoring event for the therapeutic agent in the measurement year. The selected therapeutic agents measured are:

- ACE or ARBs
- Anticonvulsants
- Digoxin
- Diuretics
- Total

[5-11] National Committee for Quality Assurance. The State of Health Care Quality, 2007. Available at: http://www.ncqa.org/Portals/0/Publications/Resource%20Library/SOHC/SOHC_07.pdf. Accessed on July 24, 2008.
[5-12] Ibid.

Plan Ranking: Annual Monitoring for Patients on Persistent Medications—ACE or ARBs

Figure 5-3—Colorado Medicaid HEDIS 2008
Plan Ranking:
Annual Monitoring for Patients on Persistent Medications—ACE or ARBs

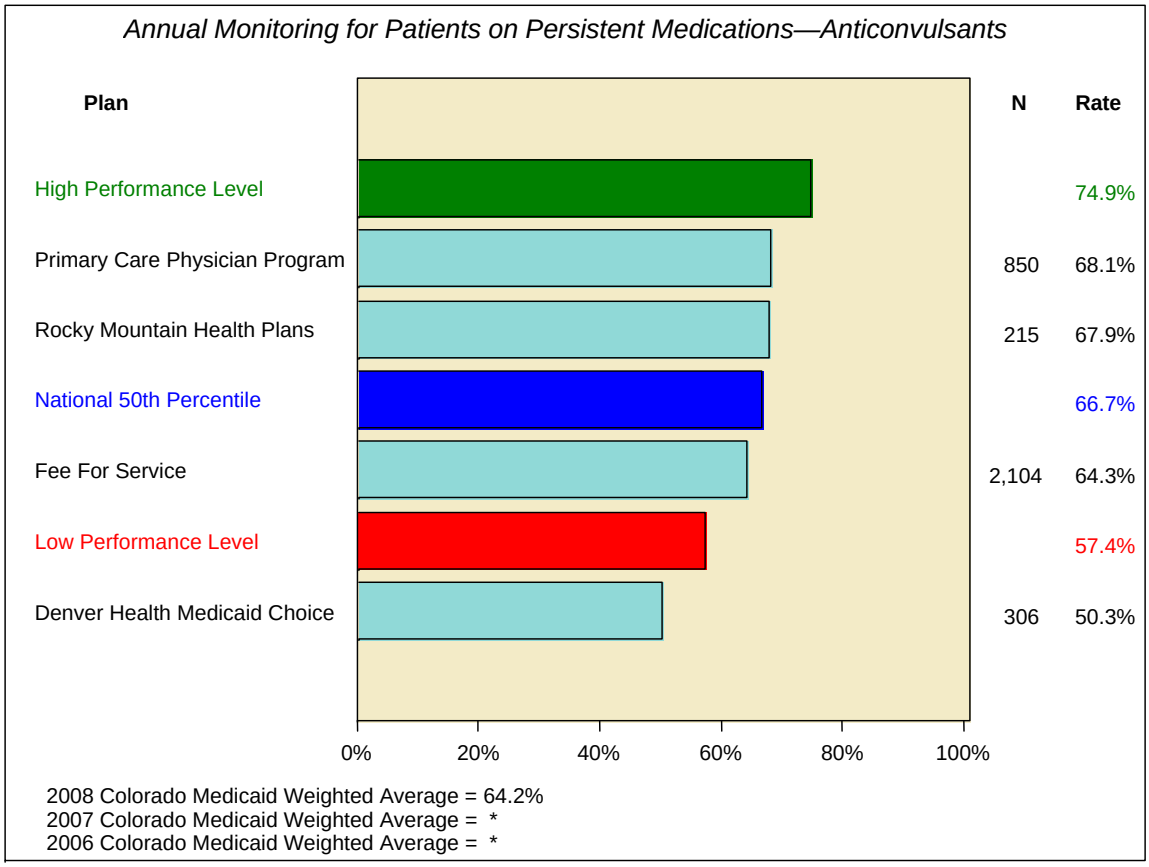


*The weighted average was not available since the measure was not audited during FY 2006 and 2007.

None of the plans ranked above the HPL of 87.9 percent, and one MCO ranked below the LPL of 77.8 percent. DHMC, FSS, and PCPP, as well as the 2008 Colorado Medicaid weighted average, all ranked above the national HEDIS 2007 Medicaid 50th percentile of 81.7 percent.

Plan Ranking: Annual Monitoring for Patients on Persistent Medications—Anticonvulsants

Figure 5-4—Colorado Medicaid HEDIS 2008
Plan Ranking:
Annual Monitoring for Patients on Persistent Medications—Anticonvulsants

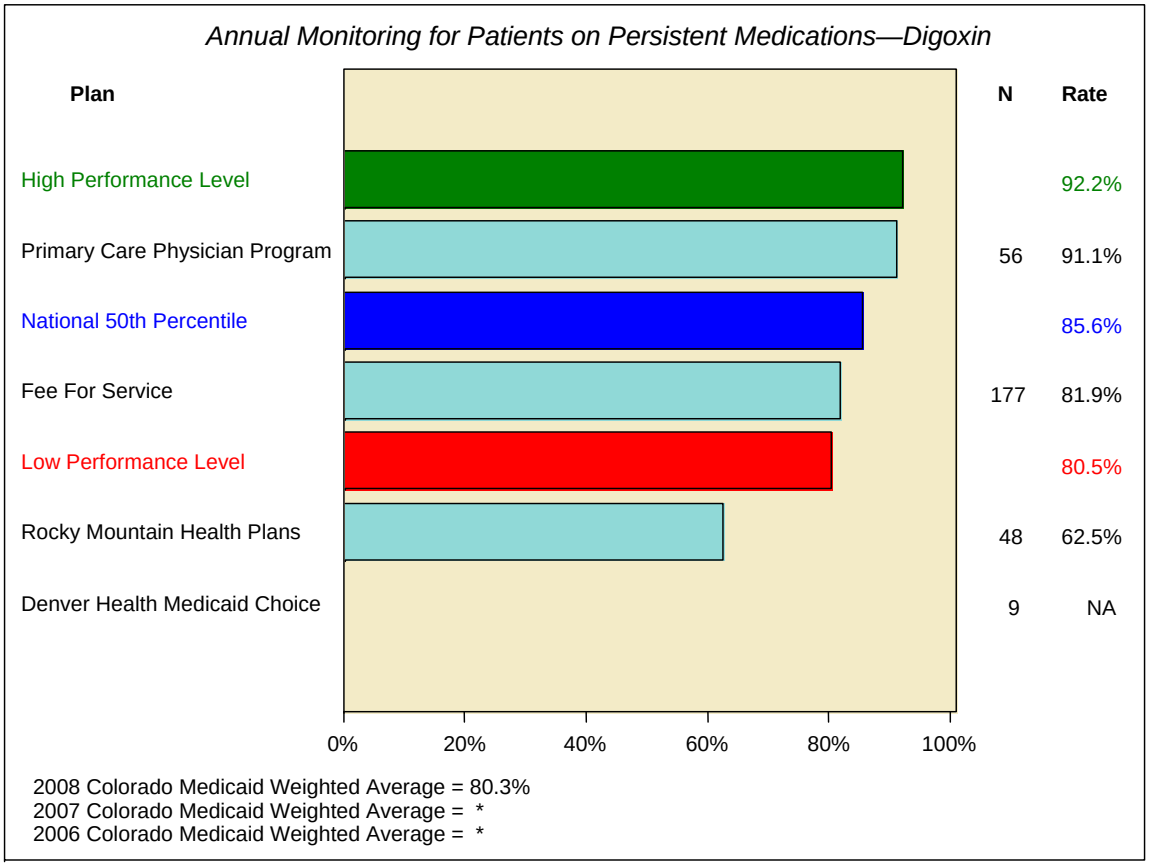


*The weighted average was not available since the measure was not audited during FY 2006 and 2007.

None of the plans ranked above the HPL of 74.9 percent, and one MCO ranked below the LPL of 57.4 percent. RMHP and PCPP exceeded the national HEDIS 2007 Medicaid 50th percentile of 66.7 percent; however, the FFS population and the 2008 Colorado Medicaid weighted average performed below the national average. DHMC's rate ranked below the LPL.

Plan Ranking: Annual Monitoring for Patients on Persistent Medications—Digoxin

Figure 5-5—Colorado Medicaid HEDIS 2008
Plan Ranking:
Annual Monitoring for Patients on Persistent Medications—Digoxin

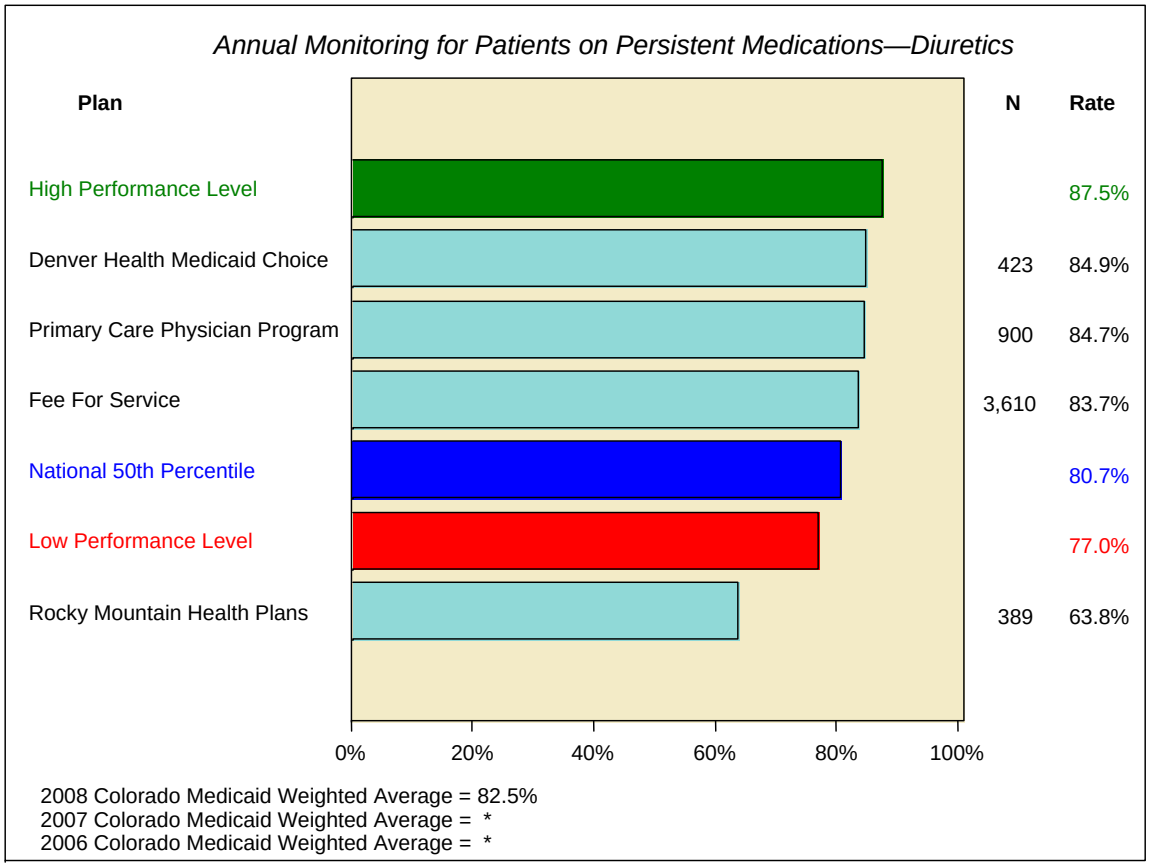


*The weighted average was not available since the measure was not audited during FY 2006 and 2007.

None of the plans performed above the HPL of 92.2 percent, and one MCO ranked below the LPL of 80.5 percent. PCPP exceeded the national HEDIS 2007 Medicaid 50th percentile of 85.6 percent; however, the FFS population and the 2008 Colorado Medicaid weighted average performed below the national average. DHMC reported an *NA* for this measure because its denominator was less than 30.

Plan Ranking: Annual Monitoring for Patients on Persistent Medications—Diuretics

Figure 5-6—Colorado Medicaid HEDIS 2008
Plan Ranking:
Annual Monitoring for Patients on Persistent Medications—Diuretics

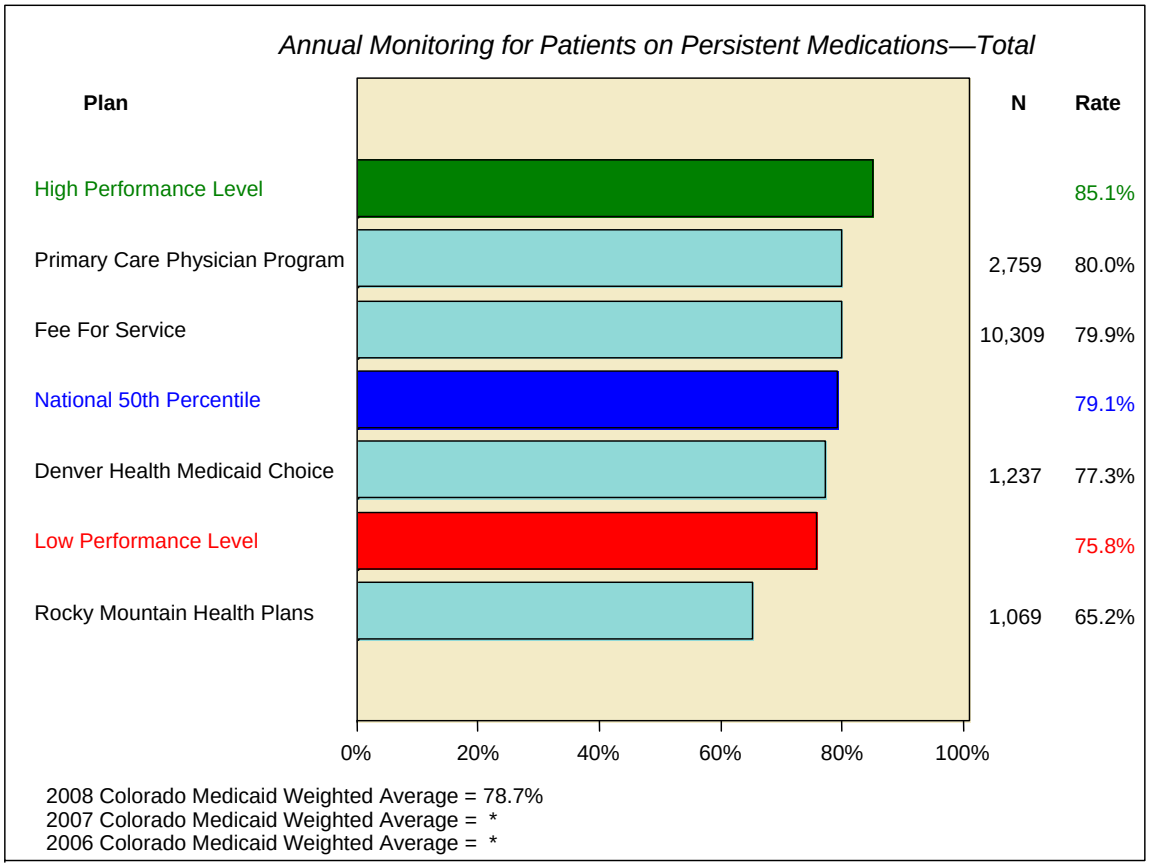


*The weighted average was not available since the measure was not audited during FY 2006 and 2007.

None of the plans ranked above the HPL of 87.5 percent, and one MCO ranked below the LPL of 77.0 percent. DHMC, FFS, and PCPP, as well as the 2008 Colorado Medicaid weighted average, all exceeded the national HEDIS 2007 Medicaid 50th percentile of 80.7 percent.

Plan Ranking: Annual Monitoring for Patients on Persistent Medications—Total

Figure 5-7—Colorado Medicaid HEDIS 2008
Plan Ranking:
Annual Monitoring for Patients on Persistent Medications—Total



*The weighted average was not available since the measure was not audited during FY 2006 and 2007.

None of the plans ranked above the HPL of 85.1 percent, and one MCO ranked below the LPL of 75.8 percent. The FFS and PCPP rates both exceeded the national HEDIS 2007 Medicaid 50th percentile of 79.1 percent. The 2008 Colorado Medicaid weighted average and DHMC's rate both performed below the national average.

Living With Illness Findings and Recommendations

When compared to national standards, Colorado's performance for the measures in the Living With Illness dimension ranged from above average to below average, with individual plan rates ranking from above the HPL to below the LPL. This varied performance indicates opportunities for improvement for all of the measures.

The *Cholesterol Management for People With Cardiovascular Conditions* measure is reported in two rates—*LDL-C Screening* and *LDL-C Level <100*. For the *LDL-C Screening* measure, RMHP reported a rate above the HPL, while all of the other plans ranked below the national HEDIS 2007 Medicaid 50th percentile and two plans ranked below the LPL. Performance on the *LDL-C Level <100* was similar to the screening measure, with RMHP performing above the HPL and all of the other plans ranking below the national HEDIS 2007 Medicaid 50th percentile. The 2008 weighted average for the *LDL-C Screening* and the *LDL-C Level <100* measures improved slightly from the 2007 weighted average, and both rates ranked below the national 50th percentile.

This was the first year that the Colorado Medicaid plans or the FFS program were asked to report *Annual Monitoring of Patients on Persistent Medications*, so no data from previous years were available to compare performance. This measure is reported in four individual medication rates and in a total rate. Overall performance was average. The Colorado weighted averages for two of the medications performed slightly above the 50th percentile, and two medications and the total weighted average performed slightly below the 50th percentile. None of the Colorado Medicaid plans' or the FFS program's rates ranked above the HPL.

Measures in the Living With Illness section rely on data that are typically received from outside sources or vendors, such as pharmacy and lab. The plans should continue to work with their vendors to enhance the completeness of these data. Improving administrative data rates will minimize the burden of medical record review for these measures.

The plans should ensure that their providers are current on all changes to the technical specifications for the reported measures. NCQA annually updates the specifications for measures; therefore, providers should continually be aware of these updates and changes.

The plans should consider implementing established quality improvement interventions to improve rates in this dimension of care. The following list contains examples of some interventions:

- Create a case management registry to access information such as laboratory screening and results data, most recent blood pressure results, and pharmacy data.
- Provide incentives to providers who meet performance thresholds on HEDIS measures.
- Secure contracts with lab vendors for enhanced lab data.
- Conduct a medical record review to identify members who need of services.

Introduction

A CDC survey revealed that during 2006, 21 percent of U.S. adults did not make an office visit to a doctor or other health professional in the previous 12 months, while 17 percent reported one office visit, 26 percent reported 2–3 visits, 23 percent reported 4–9 visits, and 14 percent reported 10 or more visits.[6-1] The survey also showed that women were more likely than men to have contacted a medical professional recently (within the past six months) and that older adults (65 years of age or older) were more likely to have contacted a medical professional recently than younger adults.

Americans made approximately 90.4 million visits to hospital outpatient departments (OPDs) in 2005. Based on demographics, OPD visit rates were higher for females than males, and were higher for African Americans than whites.[6-2] Nearly half of all OPD visits were made by patients with at least one or more chronic conditions, and hypertension was the most commonly reported of these conditions.

The following pages provide detailed analysis of the performance and ranking of Colorado MCOs, FFS, and PCPP. For all measures in this dimension, HEDIS methodology requires that the rates be derived using only the administrative method.

The Utilization of Services dimension encompasses the following measures:

- ***Inpatient Utilization—General Hospital/Acute Care***
  - *General Hospital Acute Care—Total Inpatient*
  - *General Hospital Acute Care—Medicine*
  - *General Hospital Acute Care—Surgery*
  - *General Hospital Acute Care—Maternity*

- ***Ambulatory Care***
  - *Ambulatory Care—Outpatient Visits*
  - *Ambulatory Care—ED Visits*
  - *Ambulatory Care—Ambulatory Surgery/Procedures*
  - *Ambulatory Care—Observation Room Stays*

[6-1] Centers for Disease Control and Prevention. Summary Health Statistics for U.S. Adults: National Health Interview Survey, 2006. National Center for Health Statistics. Available at: http://www.cdc.gov/nchs/data/series/sr_10/sr10_235.pdf. Accessed on August 27, 2008.

[6-2] Centers for Disease Control and Prevention. National Hospital Ambulatory Medical Care Survey: 2005 Outpatient Department Summary. Available at: http://www.cdc.gov/nchs/data/ad/ad389.pdf. Accessed on August 29, 2008.

Inpatient Utilization—General Hospital/Acute Care

From 1997 to 2005, the number of hospital stays in the United States grew by 4.5 million, despite the fact that the number of community hospitals declined from 5,060 to 4,936.[6-3] One of the most frequent reasons for hospitalization was childbirth and newborns, which together accounted for 23 percent of all hospitalizations in 2005.[6-4] The aggregate costs for stays in U.S. community hospitals increased approximately 5 percent per year (on average) from 1997 to 2005. Medicare and Medicaid together paid for 57 percent of all hospital stays in 2005.[6-5] Colorado had 470,019 total discharges from hospitals in 2005. The mean length of stay was 4.0 days, and the mean cost was $23,752.[6-6]

These measures examine the utilization of inpatient services in a general hospital/acute care setting:

- ***General Hospital Acute Care—Total Inpatient***
- ***General Hospital Acute Care—Medicine***
- ***General Hospital Acute Care—Surgery***
- ***General Hospital Acute Care—Maternity***

[6-3] Agency for Healthcare Research and Quality. HCUP Facts and Figures: Statistics on Hospital-based Care in the United States in 2005. Available at: http://www.hcup-us.ahrq.gov/reports/annualreport/HAR_2005.pdf. Accessed on July 25, 2008.
[6-4] Ibid.
[6-5] Ibid.
[6-6] Agency for Healthcare Research and Quality. HCUPnet: Information on stays in hospitals for participating states from the HCUP State Inpatient Databases (SID). Available at: http://hcupnet.ahrq.gov/HCUPnet.jsp. Accessed on July 25, 2008.

HEDIS Specification: General Hospital Acute Care—Total Inpatient

The *Inpatient Utilization—General Hospital/Acute Care* measure summarizes the utilization of acute inpatient services for total inpatient stays.

Plan Ranking: General Hospital Acute Care—Total Inpatient

Table 6-1—Utilization of Services: Inpatient Utilization—Total Discharges per 1,000 MM

IDSS	Plan Name	Code	Age <1	Ages 1–9	Ages 10–19	Ages 20–44	Ages 45–64	Ages 65–74	Ages 75–84	Ages 85+	Total
7076	Denver Health Medicaid Choice	DHMC	11.3	1.9	5.5	17.7	27.6	15.4	17.8	22.0	9.7
4278	Rocky Mountain Health Plans	RMHP	7.2	2.3	8.8	35.8	20.6	26.9	30.0	25.9	14.8
5053	Primary Care Physician Program	PCPP	6.2	2.3	5.2	12.9	16.4	8.1	10.4	13.8	8.3
3455	Fee For Service	FFS	11.7	2.4	8.0	31.9	17.2	5.1	4.8	2.7	11.8
	2008 Colorado Medicaid Average		11.4	2.4	7.6	29.7	18.3	7.0	7.1	4.8	11.5
	2007 Colorado Medicaid Average		-	-	-	-	-	-	-	-	-
	2006 Colorado Medicaid Average		-	-	-	-	-	-	-	-	-
	National HEDIS 2007 Medicaid 50th Percentile		11.1	2.1	3.6	16.7	16.5	15.0	15.8	16.1	7.6

Table 6-1 shows the total discharges per 1,000 member months for each age span and the total for all age groups. For the age-group total, all of the plans and the 2008 Colorado Medicaid average ranked above the national HEDIS 2007 Medicaid 50th percentile of 7.6 percent.

Table 6-2—Utilization of Services: Inpatient Utilization—Total Days per 1,000 MM

IDSS	Plan Name	Code	Age <1	Ages 1–9	Ages 10–19	Ages 20–44	Ages 45–64	Ages 65–74	Ages 75–84	Ages 85+	Total
7076	Denver Health Medicaid Choice	DHMC	46.1	7.2	17.3	55.7	135.2	63.4	100.5	194.2	39.7
4278	Rocky Mountain Health Plans	RMHP	24.2	10.4	18.3	81.8	97.3	122.8	157.7	119.7	48.5
5053	Primary Care Physician Program	PCPP	22.5	9.8	21.4	50.6	98.1	47.6	60.2	86.0	40.9
3455	Fee For Service	FFS	68.9	8.5	24.6	98.6	128.4	29.4	30.4	13.6	46.7
	2008 Colorado Medicaid Average		64.4	8.5	23.5	91.6	124.0	37.4	42.3	27.7	45.7
	2007 Colorado Medicaid Average		-	-	-	-	-	-	-	-	-
	2006 Colorado Medicaid Average		-	-	-	-	-	-	-	-	-
	National HEDIS 2007 Medicaid 50th Percentile		42.6	6.3	11.4	54.5	73.2	73.5	84.7	78.9	27.6

Table 6-2 displays the total inpatient days per 1,000 member months for each age span and the total for all age groups. For the age-group total, all of the plans and the 2008 Colorado Medicaid average ranked above the national HEDIS 2007 Medicaid 50th percentile of 27.6 percent.

Table 6-3—Utilization of Services: Inpatient Utilization—Total Average Length of Stay											
IDSS	Plan Name	Code	Age <1	Ages 1–9	Ages 10–19	Ages 20–44	Ages 45–64	Ages 65–74	Ages 75–84	Ages 85+	Total
7076	Denver Health Medicaid Choice	DHMC	4.1	3.7	3.2	3.2	4.9	4.1	5.6	8.8	4.1
4278	Rocky Mountain Health Plans	RMHP	3.4	4.6	2.1	2.3	4.7	4.6	5.3	4.6	3.3
5053	Primary Care Physician Program	PCPP	3.6	4.2	4.1	3.9	6.0	5.9	5.8	6.2	4.9
3455	Fee For Service	FFS	5.9	3.5	3.1	3.1	7.5	5.7	6.3	5.0	3.9
	2008 Colorado Medicaid Average		5.7	3.6	3.1	3.1	6.8	5.3	6.0	5.7	4.0
	2007 Colorado Medicaid Average		-	-	-	-	-	-	-	-	-
	2006 Colorado Medicaid Average		-	-	-	-	-	-	-	-	-
	National HEDIS 2007 Medicaid 50th Percentile		3.8	3.0	3.0	3.2	5.0	5.0	5.3	5.3	3.6

Table 6-3 shows the average length of stay for members in each of the age spans and the total for all age spans. For the age-group total, the 2008 Colorado Medicaid average and all of the plans except RMHP exceeded the national HEDIS 2007 Medicaid 50th percentile of 3.6 percent. The average length of stay for Colorado Medicaid consumers was 4 days.

HEDIS Specification: General Hospital Acute Care—Medicine

The *Inpatient Utilization—General Hospital/Acute Care* measure summarizes the utilization of acute inpatient services for medicine.

Plan Ranking: General Hospital Acute Care—Medicine

Table 6-4—Utilization of Services: Inpatient Utilization—Medicine Discharges per 1,000 MM

IDSS	Plan Name	Code	Age <1	Ages 1–9	Ages 10–19	Ages 20–44	Ages 45–64	Ages 65–74	Ages 75–84	Ages 85+	Total
7076	Denver Health Medicaid Choice	DHMC	10.5	1.7	1.5	4.4	21.3	11.8	14.5	16.7	5.6
4278	Rocky Mountain Health Plans	RMHP	6.5	1.6	0.9	6.9	14.4	18.6	18.8	18.3	6.0
5053	Primary Care Physician Program	PCPP	5.4	1.7	2.2	5.0	12.3	5.8	7.6	12.6	5.0
3455	Fee For Service	FFS	10.3	2.0	1.2	4.1	12.1	3.6	3.6	2.2	3.9
	2008 Colorado Medicaid Average		10.1	1.9	1.3	4.3	13.2	5.0	5.2	3.8	4.2
	2007 Colorado Medicaid Average		-	-	-	-	-	-	-	-	-
	2006 Colorado Medicaid Average		-	-	-	-	-	-	-	-	-
	National HEDIS 2007 Medicaid 50th Percentile		9.7	1.7	1.0	3.6	10.2	10.8	12.4	12.7	3.3

Table 6-4 shows the discharges per 1,000 member months for medicine services in each age span and the total for all age spans. For the age-group total, all of the plans and the 2008 Colorado Medicaid average ranked above the national HEDIS 2007 Medicaid 50th percentile of 3.3 percent.

Table 6-5—Utilization of Services: Inpatient Utilization—Medicine Days per 1,000 MM

IDSS	Plan Name	Code	Age <1	Ages 1–9	Ages 10–19	Ages 20–44	Ages 45–64	Ages 65–74	Ages 75–84	Ages 85+	Total
7076	Denver Health Medicaid Choice	DHMC	38.9	6.2	4.2	14.8	93.6	42.6	72.0	161.7	23.1
4278	Rocky Mountain Health Plans	RMHP	21.6	4.4	2.1	22.1	52.9	81.2	83.4	68.2	21.4
5053	Primary Care Physician Program	PCPP	17.2	5.5	10.1	21.7	61.3	29.3	34.3	53.9	22.7
3455	Fee For Service	FFS	43.7	5.5	4.6	17.6	67.8	17.2	17.7	9.8	16.9
	2008 Colorado Medicaid Average		42.0	5.6	5.0	17.8	69.1	22.8	25.2	19.7	18.0
	2007 Colorado Medicaid Average		-	-	-	-	-	-	-	-	-
	2006 Colorado Medicaid Average		-	-	-	-	-	-	-	-	-
	National HEDIS 2007 Medicaid 50th Percentile		31.6	4.6	2.9	12.0	39.4	35.8	56.8	57.1	11.3

Table 6-5 shows the medicine days per 1,000 member months in each age span and the total for all age ranges. For the age-group total, all of the plans and the 2008 Colorado Medicaid average ranked above the national HEDIS 2007 Medicaid 50th percentile of 11.3.

Table 6-6—Utilization of Services: Inpatient Utilization—Medicine Average Length of Stay											
IDSS	Plan Name	Code	Age <1	Ages 1–9	Ages 10–19	Ages 20–44	Ages 45–64	Ages 65–74	Ages 75–84	Ages 85+	Total
7076	Denver Health Medicaid Choice	DHMC	3.7	3.7	2.8	3.4	4.4	3.6	5.0	9.7	4.1
4278	Rocky Mountain Health Plans	RMHP	3.3	2.7	2.2	3.2	3.7	4.4	4.4	3.7	3.6
5053	Primary Care Physician Program	PCPP	3.2	3.2	4.6	4.3	5.0	5.0	4.5	4.3	4.6
3455	Fee For Service	FFS	4.2	2.8	3.8	4.3	5.6	4.8	5.0	4.5	4.4
	2008 Colorado Medicaid Average		4.2	2.9	3.8	4.1	5.3	4.5	4.8	5.2	4.3
	2007 Colorado Medicaid Average		-	-	-	-	-	-	-	-	-
	2006 Colorado Medicaid Average		-	-	-	-	-	-	-	-	-
	National HEDIS 2007 Medicaid 50th Percentile		3.3	2.6	3.0	3.5	4.2	4.2	4.6	4.2	3.6

Table 6-6 shows the average length of stay for medicine services in each age span and the total for all age ranges. For the age-group total, all of the plans and the 2008 Colorado Medicaid average met or exceeded the national HEDIS 2007 Medicaid 50th percentile of 3.6 percent.

HEDIS Specification: General Hospital Acute Care—Surgery

The *Inpatient Utilization—General Hospital/Acute Care* measure summarizes the utilization of acute inpatient services for surgery.

Plan Ranking: General Hospital Acute Care—Surgery

Table 6-7—Utilization of Services: Inpatient Utilization—Surgery Discharges per 1,000 MM

IDSS	Plan Name	Code	Age <1	Ages 1–9	Ages 10–19	Ages 20–44	Ages 45–64	Ages 65–74	Ages 75–84	Ages 85+	Total
7076	Denver Health Medicaid Choice	DHMC	0.8	0.3	0.6	1.7	5.7	3.4	3.0	5.0	1.4
4278	Rocky Mountain Health Plans	RMHP	0.7	0.6	0.8	2.9	6.0	8.0	10.9	7.6	2.5
5053	Primary Care Physician Program	PCPP	0.8	0.7	1.1	2.4	4.2	2.2	2.8	1.3	1.9
3455	Fee For Service	FFS	1.3	0.4	0.6	2.2	5.0	1.5	1.3	0.5	1.4
	2008 Colorado Medicaid Average		1.3	0.4	0.7	2.2	5.0	2.0	1.9	1.0	1.4
	2007 Colorado Medicaid Average		-	-	-	-	-	-	-	-	-
	2006 Colorado Medicaid Average		-	-	-	-	-	-	-	-	-
	National HEDIS 2007 Medicaid 50th Percentile		1.2	0.3	0.5	2.0	5.3	3.5	2.5	0.7	1.2

Table 6-7 shows the discharges per 1,000 member months for surgery services in each age span and the total for all age ranges. For the age-group total, all of the plans and the 2008 Colorado Medicaid average ranked above the national HEDIS 2007 Medicaid 50th percentile of 1.2 percent.

Table 6-8—Utilization of Services: Inpatient Utilization—Surgery Days per 1,000 MM

IDSS	Plan Name	Code	Age <1	Ages 1–9	Ages 10–19	Ages 20–44	Ages 45–64	Ages 65–74	Ages 75–84	Ages 85+	Total
7076	Denver Health Medicaid Choice	DHMC	7.1	1.0	4.6	10.8	38.7	20.1	26.7	29.9	9.4
4278	Rocky Mountain Health Plans	RMHP	2.6	6.0	2.8	13.7	44.0	40.5	72.5	51.5	15.7
5053	Primary Care Physician Program	PCPP	5.3	4.3	6.2	14.3	36.9	18.3	25.9	32.1	14.4
3455	Fee For Service	FFS	25.2	3.0	4.2	18.7	60.3	12.3	12.7	3.8	13.6
	2008 Colorado Medicaid Average		22.4	3.0	4.4	17.7	54.4	14.5	16.9	7.9	13.4
	2007 Colorado Medicaid Average		-	-	-	-	-	-	-	-	-
	2006 Colorado Medicaid Average		-	-	-	-	-	-	-	-	-
	National HEDIS 2007 Medicaid 50th Percentile		8.4	1.6	2.0	8.7	31.7	23.5	17.7	7.9	6.6

Table 6-8 shows the surgery days per 1,000 member months in each age span and the total for all age ranges. For the age-group total, all of the plans and the 2008 Colorado Medicaid average ranked above the national HEDIS 2007 Medicaid 50th percentile of 6.6 percent.

Table 6-9—Utilization of Services: Inpatient Utilization—Surgery Average Length of Stay											
IDSS	Plan Name	Code	Age <1	Ages 1–9	Ages 10–19	Ages 20–44	Ages 45–64	Ages 65–74	Ages 75–84	Ages 85+	Total
7076	Denver Health Medicaid Choice	DHMC	9.0	3.7	7.7	6.5	6.8	5.9	8.8	5.9	6.7
4278	Rocky Mountain Health Plans	RMHP	3.9	9.3	3.6	4.7	7.4	5.0	6.7	6.8	6.2
5053	Primary Care Physician Program	PCPP	7.0	6.6	5.7	5.9	8.9	8.2	9.2	25.2	7.7
3455	Fee For Service	FFS	18.8	6.9	6.7	8.5	12.1	8.0	10.0	6.9	10.0
	2008 Colorado Medicaid Average		17.8	6.8	6.6	8.1	10.9	7.4	9.1	7.7	9.3
	2007 Colorado Medicaid Average		-	-	-	-	-	-	-	-	-
	2006 Colorado Medicaid Average		-	-	-	-	-	-	-	-	-
	National HEDIS 2007 Medicaid 50th Percentile		7.3	4.7	4.1	4.7	6.6	7.2	7.1	8.0	5.6

Table 6-9 shows the average length of stay for surgery services in each age span and the total for all age ranges. For the age-group total, all of the plans and the 2008 Colorado Medicaid average ranked above the national HEDIS 2007 Medicaid 50th percentile of 5.6 percent.

HEDIS Specification: General Hospital Acute Care—Maternity

The *Inpatient Utilization—General Hospital/Acute Care* measure summarizes the utilization of acute inpatient services for maternity.

Plan Ranking: General Hospital Acute Care—Maternity

Table 6-10—Utilization of Services: Inpatient Utilization—Maternity Discharges per 1,000 MM

IDSS	Plan Name	Code	Ages 10–19	Ages 20–44	Ages 45–64	Total
7076	Denver Health Medicaid Choice	DHMC	3.4	11.6	0.6	5.8
4278	Rocky Mountain Health Plans	RMHP	7.1	26.0	0.2	13.0
5053	Primary Care Physician Program	PCPP	1.9	5.5	0.0	2.5
3455	Fee For Service	FFS	6.2	25.6	0.1	13.5
	2008 Colorado Medicaid Average		5.6	23.2	0.1	11.9
	2007 Colorado Medicaid Average		-	-	-	-
	2006 Colorado Medicaid Average		-	-	-	-
	National HEDIS 2007 Medicaid 50th Percentile		2.1	9.8	0.1	4.9

Table 6-10 shows the discharges per 1,000 member months for maternity services in each age span and the total for all age ranges. For the age-group total, the 2008 Colorado Medicaid average and all of the plans except PCPP ranked above the national HEDIS 2007 Medicaid 50th percentile of 4.9 percent.

Table 6-11—Utilization of Services: Inpatient Utilization—Maternity Days per 1,000 MM

IDSS	Plan Name	Code	Ages 10–19	Ages 20–44	Ages 45–64	Total
7076	Denver Health Medicaid Choice	DHMC	8.5	30.1	2.9	15.2
4278	Rocky Mountain Health Plans	RMHP	13.4	46.0	0.4	23.4
5053	Primary Care Physician Program	PCPP	5.1	14.6	0.0	6.7
3455	Fee For Service	FFS	15.8	62.3	0.3	33.3
	2008 Colorado Medicaid Average		14.2	56.2	0.6	29.2
	2007 Colorado Medicaid Average		-	-	-	-
	2006 Colorado Medicaid Average		-	-	-	-
	National HEDIS 2007 Medicaid 50th Percentile		5.5	26.6	0.2	13.3

Table 6-11 shows the maternity days per 1,000 member months for each age span and the total for all age ranges. For the age-group total, the 2008 Colorado Medicaid average and all of the plans except PCPP ranked above the national HEDIS 2007 Medicaid 50th percentile of 13.3 percent.

Table 6-12—Utilization of Services: Inpatient Utilization—Maternity Average Length of Stay						
IDSS	Plan Name	Code	Ages 10–19	Ages 20–44	Ages 45–64	Total
7076	Denver Health Medicaid Choice	DHMC	2.5	2.6	4.7	2.6
4278	Rocky Mountain Health Plans	RMHP	1.9	1.8	2.0	1.8
5053	Primary Care Physician Program	PCPP	2.7	2.7	NA	2.7
3455	Fee For Service	FFS	2.6	2.4	4.9	2.5
	2008 Colorado Medicaid Average		2.5	2.4	4.6	2.4
	2007 Colorado Medicaid Average		-	-	-	-
	2006 Colorado Medicaid Average		-	-	-	-
	National HEDIS 2007 Medicaid 50th Percentile		2.6	2.6	3.0	2.6

Table 6-12 shows the average length of stay for maternity services for each age span and the total for all age ranges. For the age-group total, the 2008 Colorado Medicaid average and all of the plans except PCPP ranked at or below the national HEDIS 2007 Medicaid 50th percentile of 2.6 percent.

Ambulatory Care

The majority of adults have relatively frequent contact with their health care providers. In 2005, approximately 1.2 billion visits were made to physician offices, hospital outpatient departments, and hospital emergency departments in the United States.[6-7] Of these, 25.2 percent were for preventive care, including checkups, as well as prenatal and postsurgical care. The aging U.S. population has contributed to increased visit rates among patients 40–59 years of age. The 2005 visit rate for this age group was 28.5 percent compared to 23.9 percent in 1995.[6-8]

- ***Ambulatory Care—Outpatient Visits***
- ***Ambulatory Care—ED Visits***
- ***Ambulatory Care—Ambulatory Surgery/Procedures***
- ***Ambulatory Care—Observation Room Stays***

[6-7] Centers for Disease Control and Prevention. National Ambulatory Medical Care Survey. Ambulatory Medical Care Utilization Estimates for 2005. Available at: http://www.cdc.gov/nchs/data/ad/ad388.pdf. Accessed on July 25, 2008.
[6-8] Ibid.

HEDIS Specification: Ambulatory Care—Outpatient Visits

The *Ambulatory Care* measure summarizes utilization of ambulatory care for outpatient visits.

Plan Ranking: Ambulatory Care—Outpatient Visits

Table 6-13—Utilization of Services: Ambulatory Care—Outpatient Visits per 1,000 MM

IDSS	Plan Name	Code	Age <1	Ages 1–9	Ages 10–19	Ages 20–44	Ages 45–64	Ages 65–74	Ages 75–84	Ages 85+	Total
7076	Denver Health Medicaid Choice	DHMC	435.6	183.3	202.6	316.2	354.2	220.4	185.3	143.2	246.6
4278	Rocky Mountain Health Plans	RMHP	769.5	339.1	264.1	411.3	718.3	703.3	698.4	468.5	440.6
5053	Primary Care Physician Program	PCPP	654.9	305.5	280.4	328.7	417.8	73.3	48.0	16.4	298.7
3455	Fee For Service	FFS	726.3	271.3	236.3	299.8	324.8	99.1	53.6	12.3	289.3
	2008 Colorado Medicaid Average		699.2	266.3	237.5	306.0	353.6	124.6	82.1	35.0	290.6
	2007 Colorado Medicaid Average		-	-	-	-	-	-	-	-	-
	2006 Colorado Medicaid Average		683.8	262.9	226.9	282.2	345.0	151.5	101.7	53.4	281.9
	National HEDIS 2007 Medicaid 50th Percentile		724.7	270.4	199.6	373.0	536.6	428.7	400.0	230.2	320.6

Table 6-13 shows outpatient visits per 1,000 member months for ambulatory care for each age span and the total for all age ranges. For the age-span total, only RMHP exceeded the national HEDIS Medicaid 50th percentile of 320.6. The 2008 Colorado Medicaid average increased by 8.7 percentage points compared to the 2006 average.

HEDIS Specification: Ambulatory Care—ED Visits

The *Ambulatory Care* measure summarizes utilization of ambulatory care for emergency department visits.

Plan Ranking: Ambulatory Care—ED Visits

Table 6-14—Utilization of Services: Ambulatory Care—Emergency Department Visits per 1,000 MM

IDSS	Plan Name	Code	Age <1	Ages 1–9	Ages 10–19	Ages 20–44	Ages 45–64	Ages 65–74	Ages 75–84	Ages 85+	Total
7076	Denver Health Medicaid Choice	DHMC	55.8	26.4	25.5	61.0	50.1	20.9	21.3	23.3	36.3
4278	Rocky Mountain Health Plans	RMHP	62.1	36.2	37.1	84.3	82.7	60.6	46.5	56.6	54.1
5053	Primary Care Physician Program	PCPP	96.7	49.5	46.6	72.9	59.7	6.1	4.4	3.2	50.2
3455	Fee For Service	FFS	101.0	48.7	43.4	80.4	52.1	6.8	4.0	1.4	54.3
	2008 Colorado Medicaid Average		95.6	46.1	41.9	78.5	54.0	9.6	6.6	4.5	52.4
	2007 Colorado Medicaid Average		-	-	-	-	-	-	-	-	-
	2006 Colorado Medicaid Average		92.7	48.0	43.9	76.4	48.5	11.3	7.2	3.9	52.4
	National HEDIS 2007 Medicaid 50th Percentile		95.7	46.5	37.3	88.8	70.3	29.6	24.7	21.5	57.1

Table 6-14 shows emergency department visits per 1,000 member months for ambulatory care for each age span and the total for all age ranges. For the age-span total, none of the plans or the 2008 Colorado Medicaid average exceeded the national HEDIS 2007 Medicaid 50th percentile of 57.1 percent. The 2008 Colorado Medicaid average showed no change from the 2006 average.

HEDIS Specification: Ambulatory Care—Ambulatory Surgery/Procedures

The *Ambulatory Care* measure summarizes utilization of ambulatory care for ambulatory surgery/procedures.

Plan Ranking: Ambulatory Care—Ambulatory Surgery/Procedures

Table 6-15—Utilization of Services: Ambulatory Care—Ambulatory Surgery Procedures per 1,000 MM

IDSS	Plan Name	Code	Age <1	Ages 1–9	Ages 10–19	Ages 20–44	Ages 45–64	Ages 65–74	Ages 75–84	Ages 85+	Total
7076	Denver Health Medicaid Choice	DHMC	1.4	1.4	1.2	4.6	12.1	9.2	5.5	5.0	3.4
4278	Rocky Mountain Health Plans	RMHP	4.2	6.6	4.9	16.6	30.1	30.3	21.3	14.2	12.2
5053	Primary Care Physician Program	PCPP	4.6	4.5	3.9	9.2	17.7	2.5	1.6	0.6	7.1
3455	Fee For Service	FFS	3.2	4.1	2.6	7.7	14.4	4.3	2.3	0.3	5.2
	2008 Colorado Medicaid Average		3.1	3.9	2.6	7.8	15.2	5.3	3.1	1.0	5.4
	2007 Colorado Medicaid Average		-	-	-	-	-	-	-	-	-
	2006 Colorado Medicaid Average		3.4	3.7	3.0	7.2	13.7	5.1	3.1	0.6	5.1
	National HEDIS 2007 Medicaid 50th Percentile		2.9	3.0	2.0	9.1	20.4	17.5	12.8	1.9	5.0

Table 6-15 shows outpatient visits per 1,000 member months for ambulatory care for each age span and the age-range total. For the age-span total, the 2008 Colorado Medicaid average and all of the plans except DHMC exceeded the national HEDIS Medicaid 50th percentile of 5.0 percent. The 2008 Colorado Medicaid average increased by 0.3 percentage points compared to the 2006 average.

HEDIS Specification: Ambulatory Care—Observation Room Stays

The *Ambulatory Care* measure summarizes utilization of ambulatory care for observation room stays.

Plan Ranking: Ambulatory Care—Observation Room Stays

Table 6-16—Utilization of Services: Ambulatory Care—Observation Room Stays per 1,000 MM

IDSS	Plan Name	Code	Age <1	Ages 1–9	Ages 10–19	Ages 20–44	Ages 45–64	Ages 65–74	Ages 75–84	Ages 85+	Total
7076	Denver Health Medicaid Choice	DHMC	2.1	1.1	1.1	3.1	1.5	1.9	1.6	1.9	1.6
4278	Rocky Mountain Health Plans	RMHP	0.7	0.6	0.9	1.9	1.4	2.8	2.4	2.0	1.2
5053	Primary Care Physician Program	PCPP	1.1	0.5	1.4	3.0	2.2	0.4	0.2	0.2	1.4
3455	Fee For Service	FFS	2.4	0.5	2.5	7.8	1.7	0.5	0.2	0.1	2.7
	2008 Colorado Medicaid Average		2.3	0.6	2.2	7.0	1.7	0.7	0.4	0.3	2.4
	2007 Colorado Medicaid Average		-	-	-	-	-	-	-	-	-
	2006 Colorado Medicaid Average		2.4	0.7	3.0	9.0	1.6	0.5	0.4	0.1	3.1
	National HEDIS 2007 Medicaid 50th Percentile		1.2	0.3	0.9	3.4	1.3	0.0	0.0	0.0	1.3

Table 6-16 shows observation room stays per 1,000 member months for ambulatory care for each age span and for the total of all age ranges. For the age-span total, the 2008 Colorado Medicaid average and all of the plans except RMHP exceeded the national HEDIS Medicaid 50th percentile. The 2008 Colorado Medicaid average declined by 0.7 percentage points compared to the 2006 average.

Utilization of Services Findings and Recommendations

The report presents rates for measures in the Utilization of Services section for informational purposes only. The rates do not indicate the quality, access, or timeliness of care and services. The reader should exercise caution in connecting these data to the efficacy of the program because many factors influence these data.

National benchmarks for the Utilization of Services measures rank plans for their utilization of services. If a plan's ER visits rate (for the Ambulatory Care measure) ranks lower than the 50th percentile, its members are accessing the ER less than other plans nationwide. If the plan ranks above the 50th percentile, ER utilization is higher than other plans nationwide. Therefore, if the goal is to keep members out of the ER for unnecessary services, plans should research the reasons for ER visits to identify ways to cut down on unnecessary use. For some plans, however, high ER utilization may not indicate that members are accessing unnecessary services. In this case, high rates of ER use may not indicate a problem with utilization of services. Each plan would have to make this determination based upon its population.

HSAG recommends that plans review their results for Utilization of Services and identify whether a rate is higher or lower than expected. Focus studies related to Utilization of Services could help identify the key drivers behind rates.

Key Findings

To assess HEDIS reporting capabilities, HSAG reviewed several documents for the MCOs, PCPP, and FFS that included the final audit reports (generated by an NCQA-licensed audit organization), IDSS files, and audit review tables. The findings indicated that none of the plans were fully compliant with all of NCQA's IS standards; however, none of the issues discovered resulted in a bias to the HEDIS rates. Therefore, the plans were able to report all of the Department-required HEDIS performance measures.

All of the plans used NCQA-certified software to produce the HEDIS measures required by the Department. Each organization used a different vendor to obtain the certified software. The software products were certified by NCQA for all of the measures included in the performance measure validation. Typically, the use of NCQA-certified software to generate HEDIS rates results in more reliable rates since NCQA tests and validates the programming logic for all of its certified vendors.

As required by NCQA, each of the plans contracted with an NCQA-licensed audit organization (LO) to perform the NCQA HEDIS Compliance Audit. Each organization contracted with a different LO to perform its audit.

The plans reported hybrid measures using electronic medical record review tools supplied by their certified software vendors. Although NCQA does not certify electronic medical record tools at this time, the edits available in these types of tools typically lead to the entry of more reliable data. PCPP and FFS contracted with a medical record vendor for medical record abstraction services in addition to the electronic medical record. The MCOs used their own staff to review medical records using their vendors' electronic tools.

Conclusions and Recommendations

All of the plans have undergone HEDIS compliance audits in the past, and based on a review of the reports, all of the plans continue to make progress in reporting accurate and valid HEDIS rates. Despite these continued improvements, the plans must still contend with challenges such as staffing changes and backlogs in key areas of HEDIS data collection. These challenges become easier as the plans implement formal processes for each department's role in HEDIS data collection. The organizations also continue to work with the issues presented by the State's enrollment data, which have been a challenge since the new enrollment system was implemented a few years ago. The State's enrollment data continues to improve, and the MCOs, FFS, and PCPP have dealt with the issues effectively.

FFS, PCPP, and the MCOs are also making strides to ensure complete and accurate data. PCPP was able to include the "denied for payment" type of claims in its HEDIS calculations for the first

time this year and was also able to refresh their administrative rates leading to an increase in many of the rates.[7-1] RMHP has capitated contracts with its providers, which could result in less complete data; however, adequate incentives and oversight activities were in place to ensure that providers submit all of their service data and that data are complete.[7-2] Denver Health Medical Plan, Inc.'s Quality Management Department targeted six different populations of members and implemented some creative ideas to help members receive the services they needed.[7-3] These efforts helped to ensure that members accessed care and received necessary services, and that providers reported these services accordingly.

Some suggestions made by auditors for the MCOs, FFS, and PCPP were not applicable to the measures under the scope of the Department-required measure. The MCOs, FFS, and PCPP should consider implementing the suggested changes, upgrades, and enhancements to their information systems, which would result in the plans being prepared to report any of the HEDIS measures should the Department select additional measures for reporting.

[7-1] HEDIS 2008, Compliance Audit Final Report of Findings for Department of Health Care Policy & Financing, July 2008
[7-2] 2008 NCQA HEDIS Compliance Audit Final Report, Rocky Mountain Health Plans, July 6, 2008
[7-3] HEDIS Compliance Audit Final Report, July 2008, Denver Health Medical Plan, Inc.

Appendix A. Tabular Results for Measures by Plan

Appendix A presents tables showing results for the measures by plan. Where applicable, the results provided for each measure include the eligible population and rate for each plan; the 2006, 2007, and 2008 Colorado Medicaid weighted averages; and the national HEDIS 2007 Medicaid 50th percentile. The following is a list of the tables and the measures presented in each.

- Table A-1—*Immunization Status*
- Table A-3—*Well-Child Visits in the First 15 Months of Life*
- Table A-4—*Well-Child Visits in the Third, Fourth, Fifth, and Sixth Years of Life and Adolescent Well-Care Visits*
- Table A-5—*Follow-Up Care for Children Prescribed ADHD Medication*
- Table A-6— *Prenatal and Postpartum Care*
- Table A-7— *Adults' Access to Preventive/Ambulatory Health Services*
- Table A-8—*Cholesterol Management for Patients With Cardiovascular Conditions*
- Table A-9—*Annual Monitoring for Patients on Persistent Medications*
- Table A-10— *Inpatient Utilization—General Hospital/Acute Care*
- Table A-10—*Ambulatory Care*

Table A-1—Tabular Results for Measures by Plan: *Immunization Status*												
IDSS	Plan Name	Code	Eligible Population	DTP	IPV	MMR	HIB	HEP	VZV	PCV	Combo 2	Combo 3
7076	Denver Health Medicaid Choice	DHMC	502	85.6%	94.9%	93.2%	94.4%	95.4%	93.2%	88.1%	85.2%	84.2%
4278	Rocky Mountain Health Plans	RMHP	319	88.1%	95.0%	94.7%	93.7%	94.4%	91.5%	85.0%	81.5%	75.9%
5053	Primary Care Physician Program	PCPP	285	83.2%	93.7%	95.1%	91.9%	91.9%	93.3%	77.9%	78.6%	69.8%
3455	Fee For Service	FFS	9,092	73.0%	86.1%	87.6%	84.4%	85.4%	85.6%	69.1%	66.4%	57.2%
	2008 Colorado Medicaid Weighted Average		- -	74.4%	87.1%	88.3%	85.4%	86.4%	86.4%	70.8%	68.2%	59.4%
	2007 Colorado Medicaid Weighted Average		- -	47.6%	59.3%	62.8%	61.2%	53.5%	61.2%	39.4%	39.5%	31.1%
	2006 Colorado Medicaid Weighted Average		- -	49.2%	58.8%	67.4%	63.2%	56.7%	65.4%	26.2%	41.5%	21.8%
	National HEDIS 2007 Medicaid 50th Percentile		- -	81.3%	89.6%	91.7%	90.8%	90.5%	90.5%	71.7%	75.2%	62.5%

Table A-2—Tabular Results for Measures by Plan: *Well-Child Visits in the First 15 Months of Life*					
IDSS	Plan Name	Code	Eligible Population	0 Visits Rate*	6 or More Visits Rate
7076	Denver Health Medicaid Choice	DHMC	103	1.9%	63.1%
4278	Rocky Mountain Health Plans	RMHP	281	1.4%	30.6%
5053	Primary Care Physician Program	PCPP	108	18.5%	56.5%
3455	Fee For Service	FFS	11,631	21.2%	37.5%
	2008 Colorado Medicaid Weighted Average		- -	20.5%	37.7%
	2007 Colorado Medicaid Weighted Average		- -	20.3%	30.3%
	2006 Colorado Medicaid Weighted Average		- -	26.3%	33.3%
	National HEDIS 2007 Medicaid 50th Percentile		- -	1.4%	56.6%

Note: *A lower rate for this measure indicates better performance.

Table A-3—Tabular Results for Measures by Plan:
Well-Child Visits in the Third, Fourth, Fifth, and Sixth Years of Life
and *Adolescent Well-Care Visits*

			3rd–6th Years of Life		Adolescent	
IDSS	Plan Name	Code	Eligible Population	Rate	Eligible Population	Rate
7076	Denver Health Medicaid Choice	DHMC	3,133	56.9%	2,675	31.9%
4278	Rocky Mountain Health Plans	RMHP	1,058	59.5%	1,173	40.8%
5053	Primary Care Physician Program	PCPP	2,343	42.6%	3,424	15.2%
3455	Fee For Service	FFS	32,204	47.7%	32,738	15.6%
	2008 Colorado Medicaid Weighted Average		- -	48.5%	- -	17.4%
	2007 Colorado Medicaid Weighted Average		- -	28.7%	- -	25.2%
	2006 Colorado Medicaid Weighted Average		- -	27.9%	- -	22.0%
	National HEDIS 2007 Medicaid 50th Percentile		- -	67.6%	- -	42.4%

Table A-4—Tabular Results for Measures by Plan: *Follow-Up Care for Children Prescribed ADHD Medication*						
			Initiation		Continuation	
IDSS	Plan Name	Code	Eligible Population	Rate	Eligible Population	Rate
7076	Denver Health Medicaid Choice	DHMC	37	16.2%	10	NA
4278	Rocky Mountain Health Plans	RMHP	NR	NR	NR	NR
5053	Primary Care Physician Program	PCPP	127	33.9%	32	31.3%
3455	Fee For Service	FFS	1,045	31.1%	390	29.5%
	2008 Colorado Medicaid Weighted Average		- -	30.9%	- -	28.9%
	2007 Colorado Medicaid Weighted Average		- -	- -	- -	- -
	2006 Colorado Medicaid Weighted Average		- -	- -	- -	- -
	National HEDIS 2007 Medicaid 50th Percentile		- -	32.1%	- -	34.2%

Table A-5—Tabular Results for Measures by Plan: *Prenatal and Postpartum Care*						
			Timeliness		Postpartum Care	
IDSS	Plan Name	Code	Eligible Population	Rate	Eligible Population	Rate
7076	Denver Health Medicaid Choice	DHMC	751	82.7%	751	55.2%
4278	Rocky Mountain Health Plans	RMHP	652	97.1%	652	72.8%
5053	Primary Care Physician Program	PCPP	391	63.4%	391	65.3%
3455	Fee For Service	FFS	15,217	52.6%	15,217	53.3%
	2008 Colorado Medicaid Weighted Average		- -	55.8%	- -	54.4%
	2007 Colorado Medicaid Weighted Average		- -	44.2%	- -	37.4%
	2006 Colorado Medicaid Weighted Average		- -	56.0%	- -	44.2%
	National HEDIS 2007 Medicaid 50th Percentile		- -	84.2%	- -	59.7%

Table A-6—Tabular Results for Measures by Plan: *Adults' Access to Preventive/Ambulatory Health Services*								
			Ages 20 to 44 Years		Ages 45 to 64 Years		Ages 65 Years & Older	
IDSS	Plan Name	Code	Eligible Population	Rate	Eligible Population	Rate	Eligible Population	Rate
7076	Denver Health Medicaid Choice	DHMC	2,803	66.1%	2,699	68.7%	2,255	56.4%
4278	Rocky Mountain Health Plans	RMHP	1,252	83.7%	1,074	88.0%	1,136	95.0%
5053	Primary Care Physician Program	PCPP	4,160	64.6%	4,319	63.7%	3,492	15.1%
3455	Fee For Service	FFS	35,811	66.4%	20,321	49.9%	26,258	16.5%
	2008 Colorado Medicaid Weighted Average		- -	66.7%	- -	55.2%	- -	21.8%
	2007 Colorado Medicaid Weighted Average		- -	- -	- -	- -	- -	- -
	2006 Colorado Medicaid Weighted Average		- -	60.3%	- -	52.7%	- -	24.4%
	National HEDIS 2007 Medicaid 50th Percentile		- -	79.1%	- -	85.5%	- -	82.3%

Table A-7—Tabular Results for Measures by Plan: *Cholesterol Management for Patients With Cardiovascular Conditions*					
IDSS	Plan Name	Code	Eligible Population	<100 LDL-C Level Rate	LDL-C Screening Rate
7076	Denver Health Medicaid Choice	DHMC	58	51.0%	70.6%
4278	Rocky Mountain Health Plans	RMHP	82	57.3%	74.4%
5053	Primary Care Physician Program	PCPP	143	24.5%	69.2%
3455	Fee For Service	FFS	379	23.7%	72.3%
	2008 Colorado Medicaid Weighted Average		- -	30.4%	71.7%
	2007 Colorado Medicaid Weighted Average		- -	29.7%	68.1%
	2006 Colorado Medicaid Weighted Average		- -	19.1%	49.5%
	National HEDIS 2007 Medicaid 50th Percentile		- -	36.7%	77.6%

Table A-8—Tabular Results for Measures by Plan: *Annual Monitoring for Patients on Persistent Medications*												
			Total		ACE/ARB		Anticonvulsants		Digoxin		Diuretics	
IDSS	Plan Name	Code	Eligible Population	Rate	Eligible Population	Rate	Eligible Population	Rate	Eligible Population	Rate	Eligible Population	Rate
7076	Denver Health Medicaid Choice	DHMC	1,237	77.3%	499	87.4%	306	50.3%	9	NA	423	84.9%
4278	Rocky Mountain Health Plans	RMHP	1,069	65.2%	417	65.5%	215	67.9%	48	62.5%	389	63.8%
5053	Primary Care Physician Program	PCPP	2,759	80.0%	953	85.4%	850	68.1%	56	91.1%	900	84.7%
3455	Fee For Service	FFS	10,309	79.9%	4,418	84.2%	2,104	64.3%	177	81.9%	3,610	83.7%
	2008 Colorado Medicaid Weighted Average		- -	78.7%	- -	83.4%	- -	64.2%	- -	80.3%	- -	82.5%
	2007 Colorado Medicaid Weighted Average		- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
	2006 Colorado Medicaid Weighted Average		- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
	National HEDIS 2007 Medicaid 50th Percentile		- -	79.1%	- -	81.7%	- -	66.7%	- -	85.6%	- -	80.7%

Table A-9—Tabular Results for Measures by Plan: *Ambulatory Care—Outpatient Visits per 1,000 MM*											
IDSS	Plan Name	Code	Age <1	Ages 1–9	Ages 10–19	Ages 20–44	Ages 45–64	Ages 65–74	Ages 75–84	Ages 85+	Total
7076	Denver Health Medicaid Choice	DHMC	435.6	183.3	202.6	316.2	354.2	220.4	185.3	143.2	246.6
4278	Rocky Mountain Health Plans	RMHP	769.5	339.1	264.1	411.3	718.3	703.3	698.4	468.5	440.6
5053	Primary Care Physician Program	PCPP	654.9	305.5	280.4	328.7	417.8	73.3	48.0	16.4	298.7
3455	Fee For Service	FFS	726.3	271.3	236.3	299.8	324.8	99.1	53.6	12.3	289.3
	2008 Colorado Medicaid Average		699.2	266.3	237.5	306.0	353.6	124.6	82.1	35.0	290.6
	2007 Colorado Medicaid Average		-	-	-	-	-	-	-	-	-
	2006 Colorado Medicaid Average		683.8	262.9	226.9	282.2	345.0	151.5	101.7	53.4	281.9
	National HEDIS 2007 Medicaid 50th Percentile		724.7	270.4	199.6	373.0	536.6	428.7	400.0	230.2	320.6

Table A-10—Tabular Results for Measures by Plan: *Ambulatory Care—Emergency Department Visits per 1,000 MM*											
IDSS	Plan Name	Code	Age <1	Ages 1–9	Ages 10–19	Ages 20–44	Ages 45–64	Ages 65–74	Ages 75–84	Ages 85+	Total
7076	Denver Health Medicaid Choice	DHMC	55.8	26.4	25.5	61.0	50.1	20.9	21.3	23.3	36.3
4278	Rocky Mountain Health Plans	RMHP	62.1	36.2	37.1	84.3	82.7	60.6	46.5	56.6	54.1
5053	Primary Care Physician Program	PCPP	96.7	49.5	46.6	72.9	59.7	6.1	4.4	3.2	50.2
3455	Fee For Service	FFS	101.0	48.7	43.4	80.4	52.1	6.8	4.0	1.4	54.3
	2008 Colorado Medicaid Average		95.6	46.1	41.9	78.5	54.0	9.6	6.6	4.5	52.4
	2007 Colorado Medicaid Average		-	-	-	-	-	-	-	-	-
	2006 Colorado Medicaid Average		92.7	48.0	43.9	76.4	48.5	11.3	7.2	3.9	52.4
	National HEDIS 2007 Medicaid 50th Percentile		95.7	46.5	37.3	88.8	70.3	29.6	24.7	21.5	57.1

Table A-11—Tabular Results for Measures by Plan: *Ambulatory Care—Ambulatory Surgery Procedures per 1,000 MM*											
IDSS	Plan Name	Code	Age <1	Ages 1–9	Ages 10–19	Ages 20–44	Ages 45–64	Ages 65–74	Ages 75–84	Ages 85+	Total
7076	Denver Health Medicaid Choice	DHMC	1.4	1.4	1.2	4.6	12.1	9.2	5.5	5.0	3.4
4278	Rocky Mountain Health Plans	RMHP	4.2	6.6	4.9	16.6	30.1	30.3	21.3	14.2	12.2
5053	Primary Care Physician Program	PCPP	4.6	4.5	3.9	9.2	17.7	2.5	1.6	0.6	7.1
3455	Fee For Service	FFS	3.2	4.1	2.6	7.7	14.4	4.3	2.3	0.3	5.2
	2008 Colorado Medicaid Average		3.1	3.9	2.6	7.8	15.2	5.3	3.1	1.0	5.4
	2007 Colorado Medicaid Average		-	-	-	-	-	-	-	-	-
	2006 Colorado Medicaid Average		3.4	3.7	3.0	7.2	13.7	5.1	3.1	0.6	5.1
	National HEDIS 2007 Medicaid 50th Percentile		2.9	3.0	2.0	9.1	20.4	17.5	12.8	1.9	5.0

Table A-12—Tabular Results for Measures by Plan: *Ambulatory Care—Observation Room Stays per 1,000 MM*											
IDSS	Plan Name	Code	Age <1	Ages 1–9	Ages 10–19	Ages 20–44	Ages 45–64	Ages 65–74	Ages 75–84	Ages 85+	Total
7076	Denver Health Medicaid Choice	DHMC	2.1	1.1	1.1	3.1	1.5	1.9	1.6	1.9	1.6
4278	Rocky Mountain Health Plans	RMHP	0.7	0.6	0.9	1.9	1.4	2.8	2.4	2.0	1.2
5053	Primary Care Physician Program	PCPP	1.1	0.5	1.4	3.0	2.2	0.4	0.2	0.2	1.4
3455	Fee For Service	FFS	2.4	0.5	2.5	7.8	1.7	0.5	0.2	0.1	2.7
	2008 Colorado Medicaid Average		2.3	0.6	2.2	7.0	1.7	0.7	0.4	0.3	2.4
	2007 Colorado Medicaid Average		-	-	-	-	-	-	-	-	-
	2006 Colorado Medicaid Average		2.4	0.7	3.0	9.0	1.6	0.5	0.4	0.1	3.1
	National HEDIS 2007 Medicaid 50th Percentile		1.2	0.3	0.9	3.4	1.3	0.0	0.0	0.0	1.3

Table A-13—Tabular Results for Measures by Plan: *Inpatient Utilization—Total Discharges per 1,000 MM*											
IDSS	Plan Name	Code	Age <1	Ages 1–9	Ages 10–19	Ages 20–44	Ages 45–64	Ages 65–74	Ages 75–84	Ages 85+	Total
7076	Denver Health Medicaid Choice	DHMC	11.3	1.9	5.5	17.7	27.6	15.4	17.8	22.0	9.7
4278	Rocky Mountain Health Plans	RMHP	7.2	2.3	8.8	35.8	20.6	26.9	30.0	25.9	14.8
5053	Primary Care Physician Program	PCPP	6.2	2.3	5.2	12.9	16.4	8.1	10.4	13.8	8.3
3455	Fee For Service	FFS	11.7	2.4	8.0	31.9	17.2	5.1	4.8	2.7	11.8
	2008 Colorado Medicaid Average		11.4	2.4	7.6	29.7	18.3	7.0	7.1	4.8	11.5
	2007 Colorado Medicaid Average		-	-	-	-	-	-	-	-	-
	2006 Colorado Medicaid Average		-	-	-	-	-	-	-	-	-
	National HEDIS 2007 Medicaid 50th Percentile		11.1	2.1	3.6	16.7	16.5	15.0	15.8	16.1	7.6

Table A-14—Tabular Results for Measures by Plan: *Inpatient Utilization—Medicine Discharges per 1,000 MM*											
IDSS	Plan Name	Code	Age <1	Ages 1–9	Ages 10–19	Ages 20–44	Ages 45–64	Ages 65–74	Ages 75–84	Ages 85+	Total
7076	Denver Health Medicaid Choice	DHMC	10.5	1.7	1.5	4.4	21.3	11.8	14.5	16.7	5.6
4278	Rocky Mountain Health Plans	RMHP	6.5	1.6	0.9	6.9	14.4	18.6	18.8	18.3	6.0
5053	Primary Care Physician Program	PCPP	5.4	1.7	2.2	5.0	12.3	5.8	7.6	12.6	5.0
3455	Fee For Service	FFS	10.3	2.0	1.2	4.1	12.1	3.6	3.6	2.2	3.9
	2008 Colorado Medicaid Average		10.1	1.9	1.3	4.3	13.2	5.0	5.2	3.8	4.2
	2007 Colorado Medicaid Average		-	-	-	-	-	-	-	-	-
	2006 Colorado Medicaid Average		-	-	-	-	-	-	-	-	-
	National HEDIS 2007 Medicaid 50th Percentile		9.7	1.7	1.0	3.6	10.2	10.8	12.4	12.7	3.3

Table A-15—Tabular Results for Measures by Plan: *Inpatient Utilization—Surgery Discharges per 1,000 MM*											
IDSS	Plan Name	Code	Age <1	Ages 1–9	Ages 10–19	Ages 20–44	Ages 45–64	Ages 65–74	Ages 75–84	Ages 85+	Total
7076	Denver Health Medicaid Choice	DHMC	0.8	0.3	0.6	1.7	5.7	3.4	3.0	5.0	1.4
4278	Rocky Mountain Health Plans	RMHP	0.7	0.6	0.8	2.9	6.0	8.0	10.9	7.6	2.5
5053	Primary Care Physician Program	PCPP	0.8	0.7	1.1	2.4	4.2	2.2	2.8	1.3	1.9
3455	Fee For Service	FFS	1.3	0.4	0.6	2.2	5.0	1.5	1.3	0.5	1.4
	2008 Colorado Medicaid Average		1.3	0.4	0.7	2.2	5.0	2.0	1.9	1.0	1.4
	2007 Colorado Medicaid Average		-	-	-	-	-	-	-	-	-
	2006 Colorado Medicaid Average		-	-	-	-	-	-	-	-	-
	National HEDIS 2007 Medicaid 50th Percentile		1.2	0.3	0.5	2.0	5.3	3.5	2.5	0.7	1.2

Table A-16—Tabular Results for Measures by Plan: *Inpatient Utilization—Maternity Discharges per 1,000 MM*						
IDSS	Plan Name	Code	Ages 10–19	Ages 20–44	Ages 45–64	Total
7076	Denver Health Medicaid Choice	DHMC	3.4	11.6	0.6	5.8
4278	Rocky Mountain Health Plans	RMHP	7.1	26.0	0.2	13.0
5053	Primary Care Physician Program	PCPP	1.9	5.5	0.0	2.5
3455	Fee For Service	FFS	6.2	25.6	0.1	13.5
	2008 Colorado Medicaid Average		5.6	23.2	0.1	11.9
	2007 Colorado Medicaid Average		-	-	-	-
	2006 Colorado Medicaid Average		-	-	-	-
	National HEDIS 2007 Medicaid 50th Percentile		2.1	9.8	0.1	4.9

Table A-17—Tabular Results for Measures by Plan: *Inpatient Utilization—Total Days per 1,000 MM*											
IDSS	Plan Name	Code	Age <1	Ages 1–9	Ages 10–19	Ages 20–44	Ages 45–64	Ages 65–74	Ages 75–84	Ages 85+	Total
7076	Denver Health Medicaid Choice	DHMC	46.1	7.2	17.3	55.7	135.2	63.4	100.5	194.2	39.7
4278	Rocky Mountain Health Plans	RMHP	24.2	10.4	18.3	81.8	97.3	122.8	157.7	119.7	48.5
5053	Primary Care Physician Program	PCPP	22.5	9.8	21.4	50.6	98.1	47.6	60.2	86.0	40.9
3455	Fee For Service	FFS	68.9	8.5	24.6	98.6	128.4	29.4	30.4	13.6	46.7
	2008 Colorado Medicaid Average		64.4	8.5	23.5	91.6	124.0	37.4	42.3	27.7	45.7
	2007 Colorado Medicaid Average		-	-	-	-	-	-	-	-	-
	2006 Colorado Medicaid Average		-	-	-	-	-	-	-	-	-
	National HEDIS 2007 Medicaid 50th Percentile		42.6	6.3	11.4	54.5	73.2	73.5	84.7	78.9	27.6

Table A-18—Tabular Results for Measures by Plan: *Inpatient Utilization—Medicine Days per 1,000 MM*											
IDSS	Plan Name	Code	Age <1	Ages 1–9	Ages 10–19	Ages 20–44	Ages 45–64	Ages 65–74	Ages 75–84	Ages 85+	Total
7076	Denver Health Medicaid Choice	DHMC	38.9	6.2	4.2	14.8	93.6	42.6	72.0	161.7	23.1
4278	Rocky Mountain Health Plans	RMHP	21.6	4.4	2.1	22.1	52.9	81.2	83.4	68.2	21.4
5053	Primary Care Physician Program	PCPP	17.2	5.5	10.1	21.7	61.3	29.3	34.3	53.9	22.7
3455	Fee For Service	FFS	43.7	5.5	4.6	17.6	67.8	17.2	17.7	9.8	16.9
	2008 Colorado Medicaid Average		42.0	5.6	5.0	17.8	69.1	22.8	25.2	19.7	18.0
	2007 Colorado Medicaid Average		-	-	-	-	-	-	-	-	-
	2006 Colorado Medicaid Average		-	-	-	-	-	-	-	-	-
	National HEDIS 2007 Medicaid 50th Percentile		31.6	4.6	2.9	12.0	39.4	35.8	56.8	57.1	11.3

Table A-19—Tabular Results for Measures by Plan: *Inpatient Utilization—Surgery Days per 1,000 MM*											
IDSS	Plan Name	Code	Age <1	Ages 1–9	Ages 10–19	Ages 20–44	Ages 45–64	Ages 65–74	Ages 75–84	Ages 85+	Total
7076	Denver Health Medicaid Choice	DHMC	7.1	1.0	4.6	10.8	38.7	20.1	26.7	29.9	9.4
4278	Rocky Mountain Health Plans	RMHP	2.6	6.0	2.8	13.7	44.0	40.5	72.5	51.5	15.7
5053	Primary Care Physician Program	PCPP	5.3	4.3	6.2	14.3	36.9	18.3	25.9	32.1	14.4
3455	Fee For Service	FFS	25.2	3.0	4.2	18.7	60.3	12.3	12.7	3.8	13.6
	2008 Colorado Medicaid Average		22.4	3.0	4.4	17.7	54.4	14.5	16.9	7.9	13.4
	2007 Colorado Medicaid Average		-	-	-	-	-	-	-	-	-
	2006 Colorado Medicaid Average		-	-	-	-	-	-	-	-	-
	National HEDIS 2007 Medicaid 50th Percentile		8.4	1.6	2.0	8.7	31.7	23.5	17.7	7.9	6.6

Table A-20—Tabular Results for Measures by Plan: *Inpatient Utilization—Maternity Days per 1,000 MM*						
IDSS	Plan Name	Code	Ages 10–19	Ages 20–44	Ages 45–64	Total
7076	Denver Health Medicaid Choice	DHMC	8.5	30.1	2.9	15.2
4278	Rocky Mountain Health Plans	RMHP	13.4	46.0	0.4	23.4
5053	Primary Care Physician Program	PCPP	5.1	14.6	0.0	6.7
3455	Fee For Service	FFS	15.8	62.3	0.3	33.3
	2008 Colorado Medicaid Average		14.2	56.2	0.6	29.2
	2007 Colorado Medicaid Average		-	-	-	-
	2006 Colorado Medicaid Average		-	-	-	-
	National HEDIS 2007 Medicaid 50th Percentile		5.5	26.6	0.2	13.3

Table A-21—Tabular Results for Measures by Plan: *Inpatient Utilization—Total Average Length of Stay*											
IDSS	Plan Name	Code	Age <1	Ages 1–9	Ages 10–19	Ages 20–44	Ages 45–64	Ages 65–74	Ages 75–84	Ages 85+	Total
7076	Denver Health Medicaid Choice	DHMC	4.1	3.7	3.2	3.2	4.9	4.1	5.6	8.8	4.1
4278	Rocky Mountain Health Plans	RMHP	3.4	4.6	2.1	2.3	4.7	4.6	5.3	4.6	3.3
5053	Primary Care Physician Program	PCPP	3.6	4.2	4.1	3.9	6.0	5.9	5.8	6.2	4.9
3455	Fee For Service	FFS	5.9	3.5	3.1	3.1	7.5	5.7	6.3	5.0	3.9
	2008 Colorado Medicaid Average		5.7	3.6	3.1	3.1	6.8	5.3	6.0	5.7	4.0
	2007 Colorado Medicaid Average		-	-	-	-	-	-	-	-	-
	2006 Colorado Medicaid Average		-	-	-	-	-	-	-	-	-
	National HEDIS 2007 Medicaid 50th Percentile		3.8	3.0	3.0	3.2	5.0	5.0	5.3	5.3	3.6

Table A-22—Tabular Results for Measures by Plan: *Inpatient Utilization—Medicine Average Length of Stay*											
IDSS	Plan Name	Code	Age <1	Ages 1–9	Ages 10–19	Ages 20–44	Ages 45–64	Ages 65–74	Ages 75–84	Ages 85+	Total
7076	Denver Health Medicaid Choice	DHMC	3.7	3.7	2.8	3.4	4.4	3.6	5.0	9.7	4.1
4278	Rocky Mountain Health Plans	RMHP	3.3	2.7	2.2	3.2	3.7	4.4	4.4	3.7	3.6
5053	Primary Care Physician Program	PCPP	3.2	3.2	4.6	4.3	5.0	5.0	4.5	4.3	4.6
3455	Fee For Service	FFS	4.2	2.8	3.8	4.3	5.6	4.8	5.0	4.5	4.4
	2008 Colorado Medicaid Average		4.2	2.9	3.8	4.1	5.3	4.5	4.8	5.2	4.3
	2007 Colorado Medicaid Average		-	-	-	-	-	-	-	-	-
	2006 Colorado Medicaid Average		-	-	-	-	-	-	-	-	-
	National HEDIS 2007 Medicaid 50th Percentile		3.3	2.6	3.0	3.5	4.2	4.2	4.6	4.2	3.6

Table A-23—Tabular Results for Measures by Plan: *Inpatient Utilization—Surgery Average Length of Stay*											
IDSS	Plan Name	Code	Age <1	Ages 1–9	Ages 10–19	Ages 20–44	Ages 45–64	Ages 65–74	Ages 75–84	Ages 85+	Total
7076	Denver Health Medicaid Choice	DHMC	9.0	3.7	7.7	6.5	6.8	5.9	8.8	5.9	6.7
4278	Rocky Mountain Health Plans	RMHP	3.9	9.3	3.6	4.7	7.4	5.0	6.7	6.8	6.2
5053	Primary Care Physician Program	PCPP	7.0	6.6	5.7	5.9	8.9	8.2	9.2	25.2	7.7
3455	Fee For Service	FFS	18.8	6.9	6.7	8.5	12.1	8.0	10.0	6.9	10.0
	2008 Colorado Medicaid Average		17.8	6.8	6.6	8.1	10.9	7.4	9.1	7.7	9.3
	2007 Colorado Medicaid Average		-	-	-	-	-	-	-	-	-
	2006 Colorado Medicaid Average		-	-	-	-	-	-	-	-	-
	National HEDIS 2007 Medicaid 50th Percentile		7.3	4.7	4.1	4.7	6.6	7.2	7.1	8.0	5.6

Table A-24—Tabular Results for Measures by Plan: *Inpatient Utilization—Maternity Average Length of Stay*						
IDSS	Plan Name	Code	Ages 10–19	Ages 20–44	Ages 45–64	Total
7076	Denver Health Medicaid Choice	DHMC	2.5	2.6	4.7	2.6
4278	Rocky Mountain Health Plans	RMHP	1.9	1.8	2.0	1.8
5053	Primary Care Physician Program	PCPP	2.7	2.7	NA	2.7
3455	Fee For Service	FFS	2.6	2.4	4.9	2.5
	2008 Colorado Medicaid Average		2.5	2.4	4.6	2.4
	2007 Colorado Medicaid Average		-	-	-	-
	2006 Colorado Medicaid Average		-	-	-	-
	National HEDIS 2007 Medicaid 50th Percentile		2.6	2.6	3.0	2.6

Appendix B. National HEDIS 2007 Medicaid Percentiles

Appendix B provides the national HEDIS Medicaid percentiles published by NCQA using prior-year rates. This information is helpful to evaluate current plan rates. The rates are presented for the 10th, 25th, 50th, 75th, and 90th percentiles. Rates in red represent below-average performance, rates in blue represent average performance, and rates in green represent above-average performance. The rates are presented in tables by dimension.

- Table B-1—Pediatric Care
- Table B-2—Access to Care
- Table B-3—Living With Illness
- Table B-4—Utilization of Services

Table B-1—National HEDIS 2007 Medicaid Percentiles—Pediatric Care					
Measure	10th Percentile	25th Percentile	50th Percentile	75th Percentile	90th Percentile
Childhood Immunization Status—DTaP	69.3	76.2	81.3	85.2	88.1
Childhood Immunization Status—IPV	79.3	85.5	89.6	92.9	94.4
Childhood Immunization Status—MMR	85.9	89.1	91.7	94.4	95.8
Childhood Immunization Status—HiB	83.1	87.3	90.8	93.7	95.3
Childhood Immunization Status—Hepatitis B	79.3	86.1	90.5	93.8	95.1
Childhood Immunization Status—VZV	80.3	87.0	90.5	92.8	94.9
Childhood Immunization Status—Pneumococcal Conjugate	52.1	60.9	71.7	77.1	80.3
Childhood Immunization Status—Combination #2	58.7	68.3	75.2	80.0	84.7
Childhood Immunization Status—Combination #3	41.7	53.9	62.5	70.6	74.2
*Well-Child Visits in the First 15 Months—Zero Visits**	0.4	0.7	1.4	2.9	6.8
Well-Child Visits in the First 15 Months—Six or More Visits	38.0	46.6	56.6	64.4	75.2
Well-Child in the Third, Fourth, Fifth, and Sixth Years of Life	55.7	62.9	67.6	74.9	79.9
Adolescent Well-Care Visits	31.3	35.3	42.4	51.4	58.9
Follow-Up Care for Children Prescribed ADHD Medication—Initiation	19.0	23.7	32.1	38.7	44.5
Follow-Up Care for Children Prescribed ADHD Medication—Continuation	12.7	21.7	34.2	46.3	50.7

* For this measure, a lower rate indicates better performance.

Table B-2—National HEDIS 2007 Medicaid Percentiles—Access to Care					
Measure	**10th Percentile**	**25th Percentile**	**50th Percentile**	**75th Percentile**	**90th Percentile**
Prenatal and Postpartum Care—Timeliness of Prenatal Care	**70.3**	**77.0**	**84.2**	**88.7**	**91.5**
Prenatal and Postpartum Care—Postpartum Care	**47.4**	**54.3**	**59.7**	**65.5**	**71.1**
Adults' Access to Preventive/Ambulatory Services—Ages 20–44 Years	**66.3**	**74.4**	**79.1**	**85.1**	**88.0**
Adults' Access to Preventive/Ambulatory Services—Ages 45–64 Years	**74.1**	**80.4**	**85.5**	**88.6**	**89.8**
Adults' Access to Preventive/Ambulatory Services—Ages 65 Years and Older	**60.2**	**71.1**	**82.3**	**88.7**	**93.5**

Table B-3—National HEDIS 2007 Medicaid Percentiles—Living With Illness					
Measure	10th Percentile	25th Percentile	50th Percentile	75th Percentile	90th Percentile
Cholesterol Management for Patients With Cardiovascular Conditions—LDL-C Screening	59.4	70.7	77.6	82.3	87.4
Cholesterol Management for Patients With Cardiovascular Conditions—LDL-C Level <100	15.6	26.1	36.7	44.8	51.7
Annual Monitoring for Patients on Persistent Medications—ACE/ARB	72.0	77.8	81.7	86.3	87.9
Annual Monitoring for Patients on Persistent Medications—Digoxin	68.9	80.5	85.6	90.7	92.2
Annual Monitoring for Patients on Persistent Medications—Diuretics	73.5	77.0	80.7	85.4	87.5
Annual Monitoring for Patients on Persistent Medications—Anticonvulsants	48.4	57.4	66.7	72.0	74.9
Annual Monitoring for Patients on Persistent Medications—Total	72.5	75.8	79.1	83.7	85.1

Table B-4—National HEDIS 2007 Medicaid Percentiles—Utilization of Services					
Measure	10th Percentile	25th Percentile	50th Percentile	75th Percentile	90th Percentile
Inpatient Utilization—General Hospital/Acute Care – Total Inpatient-Total Discharges per 1,000 MM	5.0	6.4	7.6	9.4	11.0
Inpatient Utilization—General Hospital/Acute Care – Total Inpatient-Total Days per 1,000 MM	17.4	21.7	27.6	33.2	41.9
Inpatient Utilization—General Hospital/Acute Care – Total Inpatient-Total Average Length of Stay	2.9	3.3	3.6	3.9	4.3
Inpatient Utilization—General Hospital/Acute Care – Medicine-Total Discharges per 1,000 MM	1.6	2.4	3.3	4.1	5.4
Inpatient Utilization—General Hospital/Acute Care – Medicine-Total Days per 1,000 MM	4.9	7.7	11.3	16.1	21.4
Inpatient Utilization—General Hospital/Acute Care – Medicine-Total Average Length of Stay	2.8	3.2	3.6	3.9	4.4
Inpatient Utilization—General Hospital/Acute Care – Surgery-Total Discharges per 1,000 MM	0.6	0.8	1.2	1.6	2.0
Inpatient Utilization—General Hospital/Acute Care – Surgery-Total Days per 1,000 MM	3.2	4.2	6.6	9.6	12.8
Inpatient Utilization—General Hospital/Acute Care – Surgery-Total Average Length of Stay	4.2	5.0	5.6	6.6	7.5
Inpatient Utilization—General Hospital/Acute Care – Maternity-Total Discharges per 1,000 MM	3.0	3.9	4.9	7.3	9.1
Inpatient Utilization—General Hospital/Acute Care – Maternity-Total Days per 1,000 MM	8.1	10.3	13.3	18.6	23.5
Inpatient Utilization—General Hospital/Acute Care – Maternity-Total Average Length of Stay	2.3	2.5	2.6	2.9	3.0
Ambulatory Care—Outpatient Visits per 1,000 MM	223.0	272.6	320.6	364.9	410.6
Ambulatory Care—ED Visits per 1,000 MM	33.3	46.1	57.1	67.9	77.5
Ambulatory Care—Ambulatory Surgery/Procedures per 1,000 MM	2.3	3.6	5.0	6.4	8.7
Ambulatory Care—Observation Room Stays per 1,000 MM	0.1	0.7	1.3	2.4	3.7

Appendix C. Trend Tables

Appendix C includes trend tables for each of the plans. Where applicable, the rates for 2006, 2007, and 2008 for each measure are presented along with a trend analysis that compares a measure's 2007 rate to its 2008 to assess whether the rate changed significantly.

Rates that are significantly higher in 2008 than in 2007 (by more than 10 percentage points) are noted with upward arrows (⬆). Rates that are significantly lower in 2008 than in 2007 (by more than 10 percentage points) are noted with downward arrows (⬇). Rates in 2008 that are not significantly different than in 2007 (did not change more than 10 percentage points) are noted with parallel arrows (⬅➡). For one measure, *Well-Child Visits in the First 15 Months of Life—Zero Visits*, for which a lower rate indicates better performance, an upward triangle (▲) indicates performance improvement (the rate decreased by more than 10 percentage points) and a downward triangle (▼) indicates a decline in performance (the rate increased by more than 10 percentage points).

The trend tables are presented as follows:

- Table C-1—DHMC
- Table C-2—RMHP
- Table C-3—FFS
- Table C-4—PCPP

Table C-1—Colorado Medicaid HEDIS 2008 Trend Table: DHMC					
Dimension of Care	Measure	2006	2007	2008	2007–2008 Trend
Pediatric Care	*Childhood Immunization Combo 2*	85.2%	84.8%	85.2%	⇔
	Childhood Immunization Combo 3	79.0%	83.7%	84.2%	⇔
	Childhood Immunization DTP	88.9%	84.8%	85.6%	⇔
	Childhood Immunization MMR	93.8%	95.7%	93.2%	⇔
	Childhood Immunization IPV	95.1%	92.4%	94.9%	⇔
	Childhood Immunization VZV	92.6%	95.7%	93.2%	⇔
	Childhood Immunization HEP	92.6%	93.5%	95.4%	⇔
	Childhood Immunization HIB	95.1%	93.5%	94.4%	⇔
	Childhood Immunization PCV	86.4%	87.0%	88.1%	⇔
	Well-Child 1st 15 Mos, 0 Visit	NA	0.0%	1.9%	⇔
	Well-Child 1st 15 Mos, 6+ Visits	NA	61.1%	63.1%	⇔
	Well-Child 3rd–6th Years of Life	55.5%	68.6%	56.9%	↓
	Adolescent Well-Care Visits	27.4%	35.3%	31.9%	⇔
	Follow-up Care for ADHD Med, Initiation	- -	- -	16.2%	- -
	Follow-up Care for ADHD Med, Continuation	- -	- -	NA	- -
Access to Care	*Timeliness to Care*	71.2%	77.4%	82.7%	⇔
	Postpartum Care	36.5%	33.9%	55.2%	↑
	Adults Access, 20–44	70.2%	- -	66.1%	- -
	Adults Access, 45–64	79.6%	- -	68.7%	- -
	Adults Access, 65+	81.0%	- -	56.4%	- -
Living with Illness	*CMC, <100 LDL-C Level*	NA	54.1%	51.0%	⇔
	CMC, LDL-C Screening	NA	73.0%	70.6%	⇔
	Persistent Meds, Total	- -	- -	77.3%	- -
	Persistent Meds, ACE or ARBs	- -	- -	87.4%	- -
	Persistent Meds, Anticonvulsants	- -	- -	50.3%	- -
	Persistent Meds, Digoxin	- -	- -	NA	- -
	Persistent Meds, Diuretics	- -	- -	84.9%	- -

Table C-1—Colorado Medicaid HEDIS 2008 Trend Table: DHMC					
Dimension of Care	Measure	2006	2007	2008	2007–2008 Trend
Utilization Services	*Ambulatory Care: Outpatient Visit/1,000 MM*	291.0	- -	246.6	- -
	Ambulatory Care: Emergency Department/1,000 MM	30.6	- -	36.3	- -
	Ambulatory Care: Ambulatory Surgery/1,000 MM	5.8	- -	3.4	- -
	Ambulatory Care: Observation Room Stays/1,000 MM	1.0	- -	1.6	- -
	Inpatient Utilization: Total Inpatient—Discharges/1,000 MM	- -	- -	9.7	- -
	Inpatient Utilization: Total Inpatient—Days/1,000 MM	- -	- -	39.7	- -
	Inpatient Utilization: Total Inpatient—Average Length of Stay	- -	- -	4.1	- -
	Inpatient Utilization: Medicine—Discharges/1,000 MM	- -	- -	5.6	- -
	Inpatient Utilization: Medicine—Days/1,000 MM	- -	- -	23.1	- -
	Inpatient Utilization: Medicine—Average Length of Stay	- -	- -	4.1	- -
	Inpatient Utilization: Surgery—Discharges/1,000 MM	- -	- -	1.4	- -
	Inpatient Utilization: Surgery—Days/1,000 MM	- -	- -	9.4	- -
	Inpatient Utilization: Surgery—Average Length of Stay	- -	- -	6.7	- -
	Inpatient Utilization: Maternity—Discharges/1,000 MM	- -	- -	5.8	- -
	Inpatient Utilization: Maternity—Days/1,000 MM	- -	- -	15.2	- -
	Inpatient Utilization: Maternity—Average Length of Stay	- -	- -	2.6	- -

Notes

A rotated measure is one for which the plan exercised the NCQA-approved option to use the audited and reportable rate from the prior year.

⇧ = Performance improvement (rate increase >10%)
⇔ = No significant performance change (rate change ≤10%)
⇩ = Performance decline (rate decrease >10%)
- - = No data available

Table C-2—Colorado Medicaid HEDIS 2008 Trend Table: RMHP					
Dimension of Care	Measure	2006	2007	2008	2007–2008 Trend
Pediatric Care	*Childhood Immunization Combo 2*	79.2%	74.5%	81.5%	⇦⇨
	Childhood Immunization Combo 3	48.7%	68.0%	75.9%	⇦⇨
	Childhood Immunization DTP	85.8%	83.1%	88.1%	⇦⇨
	Childhood Immunization MMR	93.7%	94.1%	94.7%	⇦⇨
	Childhood Immunization IPV	92.4%	90.1%	95.0%	⇦⇨
	Childhood Immunization VZV	90.3%	88.7%	91.5%	⇦⇨
	Childhood Immunization HEP	96.1%	93.3%	94.4%	⇦⇨
	Childhood Immunization HIB	93.4%	90.3%	93.7%	⇦⇨
	Childhood Immunization PCV	52.9%	78.5%	85.0%	⇦⇨
	Well-Child 1st 15 Mos, 0 Visit	1.2%	1.6%	1.4%	⇦⇨
	Well-Child 1st 15 Mos, 6+ Visits	33.7%	27.7%	30.6%	⇦⇨
	Well-Child 3rd–6th Years of Life	61.5%	67.1%	59.5%	⇦⇨
	Adolescent Well-Care Visits	35.7%	39.5%	40.8%	⇦⇨
	Follow-up Care for ADHD Med, Initiation	- -	- -	NR	- -
	Follow-up Care for ADHD Med, Continuation	- -	- -	NR	- -
Access to Care	*Timeliness to Care*	95.5%	97.1%	97.1%	⇦⇨
	Postpartum Care	78.0%	75.9%	72.8%	⇦⇨
	Adults Access, 20–44	80.6%	- -	83.7%	- -
	Adults Access, 45–64	90.4%	- -	88.0%	- -
	Adults Access, 65+	93.0%	- -	95.0%	- -
Living with Illness	*CMC, <100 LDL-C Level*	41.0%	43.2%	57.3%	⇧
	CMC, LDL-C Screening	65.4%	72.6%	74.4%	⇦⇨
	Persistent Meds, Total	- -	- -	65.2%	- -
	Persistent Meds, ACE or ARBs	- -	- -	65.5%	- -
	Persistent Meds, Anticonvulsants	- -	- -	67.9%	- -
	Persistent Meds, Digoxin	- -	- -	62.5%	- -
	Persistent Meds, Diuretics	- -	- -	63.8%	- -

Table C-2—Colorado Medicaid HEDIS 2008 Trend Table: RMHP					
Dimension of Care	Measure	2006	2007	2008	2007–2008 Trend
Utilization Services	*Ambulatory Care: Outpatient Visit/1,000 MM*	431.9	- -	440.6	- -
	Ambulatory Care: Emergency Department/1,000 MM	48.3	- -	54.1	- -
	Ambulatory Care: Ambulatory Surgery/1,000 MM	10.3	- -	12.2	- -
	Ambulatory Care: Observation Room Stays/1,000 MM	1.5	- -	1.2	- -
	Inpatient Utilization: Total Inpatient—Discharges/1,000 MM	- -	- -	14.8	- -
	Inpatient Utilization: Total Inpatient—Days/1,000 MM	- -	- -	48.5	- -
	Inpatient Utilization: Total Inpatient—Average Length of Stay	- -	- -	3.3	- -
	Inpatient Utilization: Medicine—Discharges/1,000 MM	- -	- -	6.0	- -
	Inpatient Utilization: Medicine—Days/1,000 MM	- -	- -	21.4	- -
	Inpatient Utilization: Medicine—Average Length of Stay	- -	- -	3.6	- -
	Inpatient Utilization: Surgery—Discharges/1,000 MM	- -	- -	2.5	- -
	Inpatient Utilization: Surgery—Days/1,000 MM	- -	- -	15.7	- -
	Inpatient Utilization: Surgery—Average Length of Stay	- -	- -	6.2	- -
	Inpatient Utilization: Maternity—Discharges/1,000 MM	- -	- -	13.0	- -
	Inpatient Utilization: Maternity—Days/1,000 MM	- -	- -	23.4	- -
	Inpatient Utilization: Maternity—Average Length of Stay	- -	- -	1.8	- -

Notes

A rotated measure is one for which the plan exercised the NCQA-approved option to use the audited and reportable rate from the prior year.

⇧	=	Performance improvement (rate increase >10%)
⇔	=	No significant performance change (rate change ≤10%)
⇩	=	Performance decline (rate decrease >10%)
- -	=	No data available

Table C-3—Colorado Medicaid HEDIS 2008 Trend Table: FFS					
Dimension of Care	Measure	2006	2007	2008	2007–2008 Trend
Pediatric Care	*Childhood Immunization Combo 2*	38.4%	37.2%	66.4%	↑
	Childhood Immunization Combo 3	20.0%	28.7%	57.2%	↑
	Childhood Immunization DTP	46.0%	45.3%	73.0%	↑
	Childhood Immunization MMR	64.7%	60.6%	87.6%	↑
	Childhood Immunization IPV	55.7%	57.4%	86.1%	↑
	Childhood Immunization VZV	62.8%	59.1%	85.6%	↑
	Childhood Immunization HEP	53.5%	51.1%	85.4%	↑
	Childhood Immunization HIB	60.1%	59.1%	84.4%	↑
	Childhood Immunization PCV	24.1%	36.7%	69.1%	↑
	Well-Child 1st 15 Mos, 0 Visit	26.8%	20.7%	21.2%	↔
	Well-Child 1st 15 Mos, 6+ Visits	33.3%	30.2%	37.5%	↔
	Well-Child 3rd–6th Years of Life	26.0%	26.2%	47.7%	↑
	Adolescent Well-Care Visits	20.9%	23.8%	15.6%	↔
	Follow-up Care for ADHD Med, Initiation	- -	- -	31.1%	- -
	Follow-up Care for ADHD Med, Continuation	- -	- -	29.5%	- -
Access to Care	*Timeliness to Care*	54.5%	41.4%	52.6%	↑
	Postpartum Care	42.8%	35.5%	53.3%	↑
	Adults Access, 20–44	58.1%	- -	66.4%	- -
	Adults Access, 45–64	43.8%	- -	49.9%	- -
	Adults Access, 65+	18.2%	- -	16.5%	- -
Living with Illness	*CMC, <100 LDL-C Level*	15.3%	18.6%	23.7%	↔
	CMC, LDL-C Screening	47.9%	65.6%	72.3%	↔
	Persistent Meds, Total	- -	- -	79.9%	- -
	Persistent Meds, ACE or ARBs	- -	- -	84.2%	- -
	Persistent Meds, Anticonvulsants	- -	- -	64.3%	- -
	Persistent Meds, Digoxin	- -	- -	81.9%	- -
	Persistent Meds, Diuretics	- -	- -	83.7%	- -

Table C-3—Colorado Medicaid HEDIS 2008 Trend Table: FFS					
Dimension of Care	**Measure**	**2006**	**2007**	**2008**	**2007–2008 Trend**
Utilization Services	***Ambulatory Care: Outpatient Visit/1,000 MM***	**272.2**	**- -**	**289.3**	**- -**
	Ambulatory Care: Emergency Department/1,000 MM	**52.6**	**- -**	**54.3**	**- -**
	Ambulatory Care: Ambulatory Surgery/1,000 MM	**4.6**	**- -**	**5.2**	**- -**
	Ambulatory Care: Observation Room Stays/1,000 MM	**3.4**	**- -**	**2.7**	**- -**
	Inpatient Utilization: Total Inpatient—Discharges/1,000 MM	**- -**	**- -**	**11.8**	**- -**
	Inpatient Utilization: Total Inpatient—Days/1,000 MM	**- -**	**- -**	**46.7**	**- -**
	Inpatient Utilization: Total Inpatient—Average Length of Stay	**- -**	**- -**	**3.9**	**- -**
	Inpatient Utilization: Medicine—Discharges/1,000 MM	**- -**	**- -**	**3.9**	**- -**
	Inpatient Utilization: Medicine—Days/1,000 MM	**- -**	**- -**	**16.9**	**- -**
	Inpatient Utilization: Medicine—Average Length of Stay	**- -**	**- -**	**4.4**	**- -**
	Inpatient Utilization: Surgery—Discharges/1,000 MM	**- -**	**- -**	**1.4**	**- -**
	Inpatient Utilization: Surgery—Days/1,000 MM	**- -**	**- -**	**13.6**	**- -**
	Inpatient Utilization: Surgery—Average Length of Stay	**- -**	**- -**	**10.0**	**- -**
	Inpatient Utilization: Maternity—Discharges/1,000 MM	**- -**	**- -**	**13.5**	**- -**
	Inpatient Utilization: Maternity—Days/1,000 MM	**- -**	**- -**	**33.3**	**- -**
	Inpatient Utilization: Maternity—Average Length of Stay	**- -**	**- -**	**2.5**	**- -**

Notes

A rotated measure is one for which the plan exercised the NCQA-approved option to use the audited and reportable rate from the prior year.

⬆	=	Performance improvement (rate increase >10%)
⬅➡	=	No significant performance change (rate change ≤10%)
⬇	=	Performance decline (rate decrease >10%)
- -	=	No data available

Table C-4—Colorado Medicaid HEDIS 2008 Trend Table: PCPP					
Dimension of Care	Measure	2006	2007	2008	2007–2008 Trend
Pediatric Care	*Childhood Immunization Combo 2*	54.7%	49.4%	78.6%	↑
	Childhood Immunization Combo 3	26.3%	41.7%	69.8%	↑
	Childhood Immunization DTP	65.7%	61.7%	83.2%	↑
	Childhood Immunization MMR	82.2%	80.7%	95.1%	↑
	Childhood Immunization IPV	74.5%	66.6%	93.7%	↑
	Childhood Immunization VZV	80.3%	79.1%	93.3%	↑
	Childhood Immunization HEP	71.8%	62.9%	91.9%	↑
	Childhood Immunization HIB	81.0%	76.1%	91.9%	↑
	Childhood Immunization PCV	32.6%	55.5%	77.9%	↑
	Well-Child 1st 15 Mos, 0 Visit	31.6%	21.1%	18.5%	↔
	Well-Child 1st 15 Mos, 6+ Visits	32.0%	35.5%	56.5%	↑
	Well-Child 3rd–6th Years of Life	21.4%	21.1%	42.6%	↑
	Adolescent Well-Care Visits	23.1%	27.5%	15.2%	↓
	Follow-up Care for ADHD Med, Initiation	- -	- -	33.9%	- -
	Follow-up Care for ADHD Med, Continuation	- -	- -	31.3%	- -
Access to Care	*Timeliness to Care*	58.2%	54.0%	63.4%	↔
	Postpartum Care	51.3%	50.6%	65.3%	↑
	Adults Access, 20–44	65.3%	- -	64.6%	- -
	Adults Access, 45–64	65.2%	- -	63.7%	- -
	Adults Access, 65+	28.6%	- -	15.1%	- -
Living with Illness	*CMC, <100 LDL-C Level*	18.5%	29.8%	24.5%	↔
	CMC, LDL-C Screening	47.2%	67.6%	69.2%	↔
	Persistent Meds, Total	- -	- -	80.0%	- -
	Persistent Meds, ACE or ARBs	- -	- -	85.4%	- -
	Persistent Meds, Anticonvulsants	- -	- -	68.1%	- -
	Persistent Meds, Digoxin	- -	- -	91.1%	- -
	Persistent Meds, Diuretics	- -	- -	84.7%	- -

Table C-4—Colorado Medicaid HEDIS 2008 Trend Table: PCPP					
Dimension of Care	**Measure**	**2006**	**2007**	**2008**	**2007–2008 Trend**
Utilization Services	***Ambulatory Care: Outpatient Visit/1,000 MM***	**299.4**	**- -**	**298.7**	**- -**
	Ambulatory Care: Emergency Department/1,000 MM	**57.3**	**- -**	**50.2**	**- -**
	Ambulatory Care: Ambulatory Surgery/1,000 MM	**6.9**	**- -**	**7.1**	**- -**
	Ambulatory Care: Observation Room Stays/1,000 MM	**1.9**	**- -**	**1.4**	**- -**
	Inpatient Utilization: Total Inpatient—Discharges/1,000 MM	**- -**	**- -**	**8.3**	**- -**
	Inpatient Utilization: Total Inpatient—Days/1,000 MM	**- -**	**- -**	**40.9**	**- -**
	Inpatient Utilization: Total Inpatient—Average Length of Stay	**- -**	**- -**	**4.9**	**- -**
	Inpatient Utilization: Medicine—Discharges/1,000 MM	**- -**	**- -**	**5.0**	**- -**
	Inpatient Utilization: Medicine—Days/1,000 MM	**- -**	**- -**	**22.7**	**- -**
	Inpatient Utilization: Medicine—Average Length of Stay	**- -**	**- -**	**4.6**	**- -**
	Inpatient Utilization: Surgery—Discharges/1,000 MM	**- -**	**- -**	**1.9**	**- -**
	Inpatient Utilization: Surgery—Days/1,000 MM	**- -**	**- -**	**14.4**	**- -**
	Inpatient Utilization: Surgery—Average Length of Stay	**- -**	**- -**	**7.7**	**- -**
	Inpatient Utilization: Maternity—Discharges/1,000 MM	**- -**	**- -**	**2.5**	**- -**
	Inpatient Utilization: Maternity—Days/1,000 MM	**- -**	**- -**	**6.7**	**- -**
	Inpatient Utilization: Maternity—Average Length of Stay	**- -**	**- -**	**2.7**	**- -**

Notes

A rotated measure is one for which the plan exercised the NCQA-approved option to use the audited and reportable rate from the prior year.

↑ = Performance improvement (rate increase >10%)
↔ = No significant performance change (rate change ≤10%)
↓ = Performance decline (rate decrease >10%)
- - = No data available

Appendix D. Glossary

Appendix D includes terms, acronyms, and abbreviations commonly used in HEDIS and NCQA literature and text. This glossary can be used as a reference and guide to identify common HEDIS language used throughout the report.

Terms, Acronyms, and Abbreviations

Administrative Data

Any automated data within a plan (e.g., claims/encounter data, member data, provider data, hospital billing data, pharmacy data, and laboratory data).

Administrative Method

The administrative method requires plans to identify the eligible population (i.e., the denominator) using administrative data. In addition, the numerator(s), or services provided to members of the eligible population, are derived solely from administrative data. Medical records cannot be used to retrieve information. When using the administrative method, the entire eligible population becomes the denominator, and sampling is not allowed.

The administrative method is cost efficient but can produce lower rates due to incomplete data submission by capitated providers. For example, a plan has 10,000 members who qualify for the *Prenatal and Postpartum Care* measure. The plan chooses to perform the administrative method and finds that 4,000 members out of the 10,000 had evidence of a postpartum visit using administrative data. The final rate for this measure, using the administrative method, would therefore be 4,000/10,000, or 40 percent.

Audit Designation

The auditor's final determination, based on audit findings, of the appropriateness of the plan publicly reporting its HEDIS measure rates. Each measure included in the HEDIS audit receives either a *Report* or a *Not Report* designation, along with the rationale for that particular designation.

Baseline Assessment Tool (BAT) Review

The BAT, completed by each plan undergoing the HEDIS audit process, provides information to auditors regarding the plan's systems for collecting and processing data for HEDIS reporting. Auditors review the BAT prior to the scheduled on-site plan visit to gather preliminary information for planning/targeting on-site visit assessment activities; determining the core set of measures to be reviewed; determining which hybrid measures will be included in medical record validation; requesting the source code for core measures, as needed; identifying areas that require additional clarification during the on-site visit; and determining whether the core set of measures needs to be expanded.

BRFSS

Behavioral Risk Factor Surveillance System.

CAHPS® 3.0H

Consumer Assessment of Healthcare Providers and Systems* is a set of standardized surveys that assess patients' satisfaction with their experience of care.

**Formerly the Consumer Assessment of Health Plans Study.*

Capitation

A method of payment for providers. Under a capitated payment arrangement, providers are reimbursed on a per-member/per-month basis. The provider receives payment each month, regardless of whether the member needs services or not. Therefore, there is little incentive for providers to submit individual encounters, knowing that payment is not dependent on such submission.

Certified HEDIS Software Vendor

A third party, whose source code has been certified by NCQA, that contracts with a plan to write source code for HEDIS measures. For a vendor's software to be certified by NCQA, all of the vendor's programmed HEDIS measures must be submitted to NCQA for automated testing of program logic, and a minimum of 70 percent of the measures must receive a "Pass" or "Pass with Qualifications" designation.

Claims-Based Denominator

When the eligible population for a measure is obtained from claims data. For claims-based denominator hybrid measures, plans must identify their eligible population and draw their sample no earlier than January of the year following the measurement year to ensure all claims incurred through December 31 of the measurement year are captured in their systems.

CMS

The Centers for Medicare & Medicaid Services (CMS) is a federal agency within the Department of Health and Human Services (DHHS) that regulates requirements and procedures for external quality review of managed care organizations. CMS provides health insurance to individuals through Medicare, Medicaid, and the State Children's Health Insurance Program (SCHIP). In addition, CMS regulates laboratory testing through Clinical Laboratory Improvement Amendments (CLIA), develops coverage policies, and initiates quality-of-care improvement activities. CMS also maintains oversight of nursing homes and continuing care providers. This includes home health agencies, intermediate care facilities for the mentally retarded, and hospitals.

CMS 1500

A type of health insurance claim form used to bill professional services (formerly HCFA 1500).

Cohorts

Population components of a measure based on the age of the member at a particular point in time. A separate HEDIS rate is calculated for each cohort in a measure. For example, the *Children's and Adolescents' Access to Primary Care Practitioners* measure has four cohorts: Cohort 1, children 12–24 months of age as of December 31 of the measurement year; Cohort 2, children 25 months to 6 years of age as of December 31 of the measurement year; Cohort 3, children 7–11 years of age as of December 31 of the measurement year; and Cohort 4, adolescents 12–19 years of age as of December 31 of the measurement year.

Computer Logic

A programmed, step-by-step sequence of instructions to perform a given task.

Continuous Enrollment Requirement

The minimum amount of time that a member must be enrolled in a plan to be eligible for inclusion in a measure to ensure that the plan has a sufficient amount of time to be held accountable for providing services to that member.

Core Set

For a full HEDIS audit, auditors select a core set of measures for detailed review during the audit process. The core set of measures must include 13 measures across all domains of care and represent all data sources, all product lines/products, and all intricacies of plan data collection and reporting. In addition, the core set must focus on any plan weaknesses identified during the BAT review. The core set can be expanded to more than 13 measures but cannot be less than 13 measures. The core set does not include rotated measures.

CPT

Current Procedural Terminology (CPT®) is a list of billing codes generated by the American Medical Association and used to report the provision of medical services and procedures.

CVO

Credentials verification organization.

Data Completeness

The degree to which occurring services/diagnoses appear in the plan's administrative data systems.

Data Completeness Study

An internal assessment developed and performed by a plan, using a statistically sound methodology, to quantify the degree to which occurring services/diagnoses appear or do not appear in the plan's administrative data systems.

Denominator

The number of members who meet all criteria specified in the measure for inclusion in the eligible population. When using the administrative method, the entire eligible population becomes the denominator. When using the hybrid method, a sample of the eligible population becomes the denominator.

DRG Coding

Diagnosis-related group coding sorts diagnoses and procedures for inpatient encounters by groups under major diagnostic categories with defined reimbursement limits.

DST

Data submission tool: A tool used to report HEDIS data to NCQA.

DTaP

Diphtheria and tetanus toxoids and acellular pertussis vaccine.

DT

Diphtheria and tetanus toxoids vaccine.

EDI

Electronic data interchange is the direct computer-to-computer transfer of data.

Electronic Data

Data maintained in a computer environment versus a paper environment.

Encounter Data

Billing data received from a capitated provider. Although the plan does not reimburse the provider for each encounter, submission of encounter data to the plan allows the plan to collect the data for future HEDIS reporting.

Exclusions

Conditions outlined in HEDIS measure specifications that describe when a member should not be included in the denominator.

FACCT

Foundation for Accountability.

FFS

Fee for service: A reimbursement mechanism that pays the provider for services billed.

Final Report

Following the plan's completion of any corrective actions, the written report completed by the auditor documenting all final findings and results of the HEDIS audit. The final report includes the summary report, IS capabilities assessment, medical record review validation findings, measure designations, and the audit opinion (final audit statement).

Full HEDIS Audit

A full audit occurs when the HEDIS auditor selects a sample of measures (core set) that represents all HEDIS domains of care and extrapolates the findings for that sample to the entire set of HEDIS measures. Plans that undergo a full audit can use the NCQA seal in marketing materials.

Global Billing Practices

The practice of billing multiple services provided over a period of time in one inclusive bill, commonly used by obstetrics (OB) providers to bill prenatal and postpartum care.

HbA1c

The HbA1c test (hemoglobin A1c test or glycosylated hemoglobin test) is a lab test that reveals average blood glucose over a period of two to three months.

HCFA 1500

A former type of claim form used to bill professional services. The claim form has been changed to the CMS 1500.

HCPCS

Healthcare Common Procedure Coding System: A standardized alphanumeric coding system that maps to certain CPT codes (see also CPT).

HEDIS

The Healthcare Effectiveness Data and Information Set (HEDIS),* developed and maintained by NCQA, is a set of performance measures used to assess the quality of care provided by managed health care organizations.

**Formerly the Health Plan Employer Data and Information Set.*

HEDIS Measure Determination Standards (HD)

The standards that auditors use during the audit process to assess a plan's adherence to HEDIS measure specifications.

HEDIS Repository

The data warehouse that stores all data used for HEDIS reporting.

HEDIS Warehouse

See HEDIS repository.

HiB Vaccine

Haemophilus influenzae type b vaccine.

HPL

High performance level. The Department has defined the HPL as the most recent national HEDIS Medicaid 90th percentile, except for two key measures (*Well-Child Visits in the First 15 Months of Life—Zero Visits* and *Comprehensive Diabetes Care—Poor HbA1c Control*) for which lower rates indicate better performance. For these two measures, the 10th percentile (rather than the 90th) shows excellent performance.

HSAG

Health Services Advisory Group, Inc.

Hybrid Measures

Measures that can be reported using the hybrid method.

Hybrid Method

The hybrid method requires plans to identify the eligible population using administrative data, then extract a systematic sample of 411 members from the eligible population, which becomes the denominator. Administrative data are used to identify services provided to those 411 members. Medical records must then be reviewed for those members who do not have evidence of a service being provided using administrative data.

The hybrid method generally produces higher results but is considerably more labor intensive. For example, a plan has 10,000 members who qualify for the *Prenatal and Postpartum Care* measure. The plan chooses to perform the hybrid method. After randomly selecting 411 eligible members, the plan finds that 161 members had evidence of a postpartum visit using administrative data. The plan then obtains and reviews medical records for the 250 members who did not have evidence of a postpartum visit using administrative data. Of those 250 members, 54 had a postpartum visit recorded in the medical record. The final rate for this measure, using the hybrid method, would be (161 + 54) /411, or 52 percent.

ICD-9-CM

ICD-9-CM, the acronym for the International Classification of Diseases, 9th Revision, Clinical Modification, is the classification of diseases and injuries into groups according to established criteria that is used for reporting morbidity, mortality, and utilization rates, as well as for billing purposes.

Inpatient Data

Data derived from an inpatient hospital stay.

IRR

Inter-rater reliability: The degree of agreement exhibited when a measurement is repeated under the same conditions by different raters.

IS

Information system. An automated system for collecting, processing, and transmitting data.

IPV

Inactivated poliovirus vaccine.

IT

Information technology. The technology used to create, store, exchange, and use information in its various forms.

Key Data Elements

The data elements that must be captured to be able to report HEDIS measures.

Key Measures

The HEDIS measures selected by the Department that plans are required to report for HEDIS.

LDL-C

Low-density lipoprotein cholesterol.

Logic Checks

Evaluations of programming logic to determine its accuracy.

LPL

Low performance level. For most key measures, the Department has defined the LPL as the most recent national HEDIS Medicaid 25th percentile. For two key measures (*Well-Child Visits in the First 15 Months of Life—Zero Visits* and *Comprehensive Diabetes Care—Poor HbA1c Control*) lower rates indicate better performance. The LPLs for these measures are the 75th percentile rather than the 25th.

Manual Data Collection

Collection of data through a paper versus an automated process.

Mapping Codes

The process of translating a plan's propriety or nonstandard billing codes to industry standard codes specified in HEDIS measures. Mapping documentation should include a crosswalk of relevant codes, descriptions, and clinical information, as well as the policies and procedures for implementing the codes.

Material Bias

For most measures reported as a rate (which includes all of the key measures except *Advising Smokers to Quit*), any error that causes a ± 5 percent difference in the reported rate is considered materially biased. For non-rate measures or measures collected via the CAHPS survey, (such as the key measure, *Advising Smokers to Quit*), any error that causes a ± 10 percent difference in the reported rate or calculation.

MCO

Managed care organization.

Medical Record Validation

The process that auditors follow to verify that the plan's medical record abstraction meets industry standards and the abstracted data are accurate.

Medicaid Percentiles

The NCQA national average for each HEDIS measure for the Medicaid product line, used to compare plan performance and assess the reliability of a plan's HEDIS rates.

Membership Data

Electronic plan files containing information about members, such as name, date of birth, gender, current address, and enrollment (i.e., when the member joined the plan).

Mg/dL

Milligrams per deciliter.

Modifier Codes

Two- or five-digit extensions added to CPT® codes to provide additional information about services/procedures.

MMR

Measles, mumps, and rubella vaccine.

NA

Not Applicable. A designation indicating that the plan did not offer the benefit or the denominator was too small (i.e., less than 30) to report a valid rate.

NCQA

The National Committee for Quality Assurance (NCQA) is a not-for-profit organization that assesses, through accreditation reviews and standardized measures, the quality of care provided by managed health care delivery systems; reports results of those assessments to employers, consumers, public purchasers, and regulators; and ultimately seeks to improve the health care provided within the managed care industry.

NDC

National Drug Codes used for billing pharmacy services.

NR

The *Not Report* HEDIS audit designation.

A measure may be designated *NR* for any of three reasons:

1. The plan did not calculate the measure and a population existed for which the plan could have calculated the measure.
2. The plan calculated the measure but chose not to report the result.
3. The plan calculated the measure but the result was materially biased.

Numerator

The number of members in the denominator who received all the services as specified in the measure.

OPV

Oral polio vaccine.

Over-Read Process

The process of re-reviewing a sample of medical records by a different abstractor to assess the degree of agreement between two different abstractors and ensure the accuracy of abstracted data. The plan should conduct the over-read process as part of its medical record review process. Auditors overread a sample of the plan's medical records as part of the audit process.

Partial HEDIS Audit

A partial audit occurs when the plan, state regulator, or purchaser selects the HEDIS measures for audit. Any number of measures may be selected, but, unlike a full audit, findings are not extrapolated to the entire set of HEDIS measures. In addition, the plan cannot use the NCQA seal in marketing materials.

PCV

Pneumococcal conjugate vaccine

Pharmacy Data

Data derived from providing pharmacy services.

Primary Source Verification

The practice of reviewing the processes and procedures to input, transmit, and track data from its original source to the HEDIS repository to verify that the original information matches the output information for HEDIS reporting.

Proprietary Codes

Unique billing codes developed by a plan, which have to be mapped to industry standard codes for HEDIS reporting.

Provider Data

Electronic files containing information about physicians, such as type of physician, specialty, reimbursement arrangement, and office location.

Retroactive Enrollment

When the effective date of a member's enrollment in a plan occurs prior to the date that the plan is notified of that member's enrollment. Medicaid members who are retroactively enrolled in a plan must be excluded from a HEDIS measure denominator if the time period from the effective date of enrollment to the date of notification exceeds the measure's allowable gap specifications.

Revenue Codes

Cost codes for facilities to bill by category, services, procedures, supplies, and materials.

Sample Frame

In the hybrid method, members of the eligible population from which the systematic sample is drawn who meet all criteria specified in the measure.

Source Code

The written computer programming logic for determining the eligible population and the denominators/numerators for calculating the rate for each measure.

Standard Codes

Industry standard billing codes such as ICD-9-CM, CPT,® DRG, Revenue, and UB-92 codes used for billing inpatient and outpatient health care services.

Studies on Data Completeness

Studies that plans conduct to assess data completeness.

T test Validation

A statistical validation of a plan's positive medical record numerator events.

UB-92 Claims

A type of claim form used to bill hospital-based inpatient, outpatient, emergency room, and clinic drugs, supplies, and/or services. UB-92 codes are primarily Type of Bill and Revenue codes.

Vendor

Any third party that contracts with a plan to perform services. The most common delegated services are pharmacy vendors, vision care services, laboratory services, claims processing, HEDIS software vendors, and provider credentialing.

VZV

Varicella-zoster virus (chicken pox) vaccine.