Colorado Medicaid HEDIS® 2009 Results
STATEWIDE AGGREGATE REPORT

October 2009

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

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Introduction

During 2008, the Colorado Department of Health Care Policy & Financing (the Department) offered managed care services to Colorado Medicaid members through one managed care organization (MCO)—Denver Health Medicaid Choice (DHMC), one prepaid inpatient health plan (PIHP)—Rocky Mountain Health Plans (RMHP), the Department-run managed care program (Primary Care Physicians Program [PCPP]), and the fee-for-service (FFS) program. This report refers to these entities as Colorado Medicaid health plans. To evaluate performance levels, the Department implemented a system to provide an objective, comparative review of the Colorado Medicaid health plans' quality-of-care outcomes and performance measures. One component of the evaluation system was based on the National Committee for Quality Assurance's (NCQA's) Healthcare Effectiveness Data and Information Set (HEDIS®).[1-1] The Department selected 16 HEDIS measures from the standard Medicaid HEDIS reporting set to evaluate the Colorado Medicaid health plans' performance and for public reporting. The Department requires its contracted health plans to maintain 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 health plan's current performance level relative to national Medicaid percentiles.

National performance standards were included when available for the Colorado Medicaid 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. Health plans meeting the high performance level (HPL) exhibit rates among the top in the nation. The low performance level (LPL) identifies health 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 2009 results relative to the 2008 Colorado Medicaid weighted averages and the national HEDIS 2008 Medicaid 50th percentiles where applicable.
- A performance profile analysis discusses the overall Colorado Medicaid 2009 results and presents a summary of health plan performance relative to the Colorado Medicaid performance levels.

[1-1] HEDIS® is a registered trademark of the National Committee for Quality Assurance (NCQA).

- A health plan ranking analysis provides a more detailed comparison, showing results relative to the Colorado Medicaid performance levels.

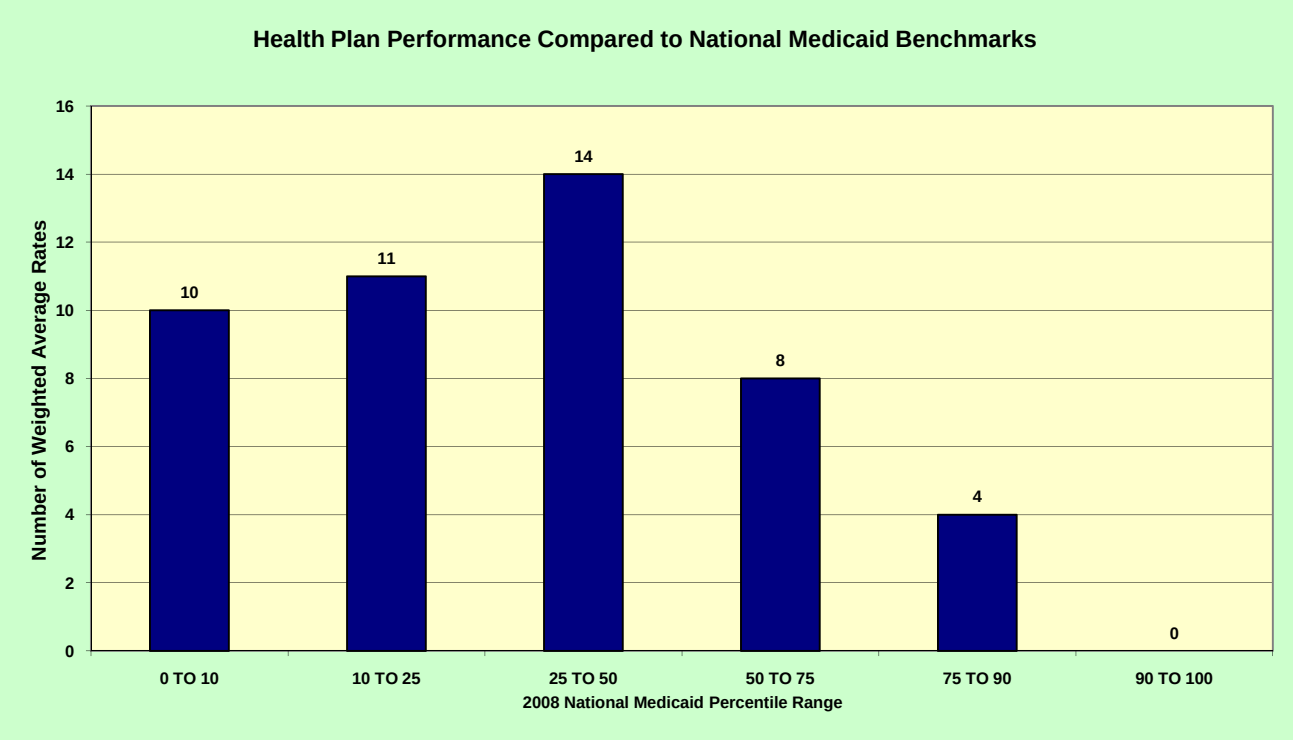
In addition, Section 7, "HEDIS Reporting Capabilities," provides a summary of the HEDIS data collection processes used by the Colorado Medicaid health plans and audit findings reported in each health plan's Interactive Data Submission System (IDSS) in relation to NCQA's information system (IS) standards.

Key Findings and Recommendations

Colorado Compared to National Averages

This is the second year that HSAG has examined the Colorado Medicaid HEDIS results for aggregate data reporting. Figure 1-1 shows Colorado Medicaid health plans performance compared with national Medicaid percentiles. The bars represent the number of Colorado Medicaid weighted averages falling into the national HEDIS 2008 Medicaid percentile grouping listed on the horizontal axis. Sixteen measures with a total of 47 submeasures were publically reported (*Annual Dental Visit* was only required for the FFS and PCPP programs). A quarter of the 47 submeasures, including 1 Pediatric Care measure, 5 Access to Care measures, and 6 Living with Illness measures ranked above the national average. Of the 47 weighted averages for which national percentile data were available, 10 (or 21 percent) fell below the national Medicaid 10th percentile, 11 (or 23 percent) fell between the 10th and 25th percentiles, 14 (or 30 percent) fell between the 25th and 50th percentiles, 8 (or 17 percent) fell between the 50th and 75th percentiles, while the remaining four measures (or 9 percent) fell between the 75th and 90th percentiles. No measures ranked above the 90th percentile. Utilization measures were excluded from the graph since percentile ranking of these measures does not necessarily correspond to better or poorer performance. In addition, *Annual Dental Visit: 2–3 Years*, and *Comprehensive Diabetes Care: HbA1c Control (<8.0%)* were excluded because they did not have national Medicaid benchmarks.

**Figure 1-1—Colorado Medicaid HEDIS 2009:
Health Plan Performance Compared With National Medicaid Percentiles**



2008 Colorado HEDIS Rates Compared to 2009

Twenty-five of the 47 statewide weighted averages had data from 2008 available for comparison purposes. When comparing the 2009 weighted averages to the 2008 weighted averages, there were two statistically significant improvements in the Pediatric Care dimension, including *Childhood Immunization Status—HiB* and *Adolescent Well-Care Visits*, and three statistically significant improvements in the Access to Care dimension, including *Adults' Access to Preventive/Ambulatory Health Services: Ages 20–44 Years, Ages 45–64 Years,* and *Ages 65 Years and Older*. Eleven other measures improved without statistical significance, while the remaining nine measures declined. However, none of the declines was statistically significant.

In the Pediatric Care dimension, for measures that had data from 2008 available for comparison, six measures, including *Childhood Immunization Status—IPV, Hepatitis B,* and *MMR*; *Well-Child Visits in the First 15 Months of Life—Zero Visits, Six or More Visits*; and *Well-Child Visits in the Third, Fourth, Fifth, and Sixth Years of Life*, all demonstrated declines in the statewide averages from 2008 to 2009 without statistical significance. The *Adolescent Well-Care Visits* and *Childhood Immunization Status—HiB* measures showed statistically significant improvements while the remaining six *Childhood Immunization Status* measures, *Combination #2, Combination #3, DTaP, VZV, Hepatitis B,* and *Pneumococcal conjugate* showed improvement that was not statistically significant. The *HiB* measure was the only Pediatric Care measure to rank above the national HEDIS 2008 Medicaid 50th percentile.

Three of the statewide weighted averages in the Access to Care dimension that had data reported in 2008 (*Adults' Access to Preventive/Ambulatory Health Services: Ages 20–44 Years, Ages 45–64 Years,* and *Ages 65 Years and Older)* demonstrated statistically significant improvement in 2009. This can be attributed to the inclusion of the crossover claim types for FFS and PCPP this year, which resulted in statistically significant increases for both of these programs. The DHMC and RMHP rates remained stable for these measures. The *Timeliness of Prenatal Care* and *Postpartum Care* submeasures demonstrated declines that were not statistically significant. None of the measures in the Access to Care dimension with data available from the previous year ranked above the national HEDIS 2008 Medicaid 50th percentile.

Both submeasures for the *Cholesterol Management for People With Cardiovascular Conditions* measure within the Living With Illness dimension demonstrated declines that were not statistically significant and remained below the national HEDIS 2008 Medicaid 50th percentile. All five submeasures of the *Annual Monitoring for Patients on Persistent Medications,* including *ACE Inhibitors or ARBs, Anticonvulsants, Digoxin, Diuretics,* and *Total* improved without statistical significance, but ranked better than the national HEDIS 2008 Medicaid 50th percentile. For the Living With Illness measures that were newly added this year, the *Use of Appropriate Medications for People With Asthma—Ages 5 to 9* measure performed higher than the national HEDIS 2008 Medicaid 50th percentile. The other three submeasures for the *Use of Appropriate Medications for People With Asthma* ranked above the LPL. This was the first year that the State required the reporting of the *Comprehensive Diabetes Care* measure. Overall, performance across the health plans was below the LPL.

In addition, 16 of the Utilization of Services measures had data from 2008 available for comparison purposes. The *Ambulatory Care: Ambulatory Surgery Procedures/1,000 Member Months (MM)* measure increased with statistical significance, while the *Inpatient Utilization: Surgery Average Length of Stay* measure decreased with statistical significance. Eight other measures decreased without statistical significance, while five measures, including *Ambulatory Care—ED Visits/1,000 MM; Ambulatory Care—Outpatient Visits/1,000 MM; Inpatient Utilization—General Hospital/Acute Care—Maternity Average Length of Stay; Inpatient Utilization—General Hospital/Acute Care—Maternity Days/1,000 MM;* and *Inpatient Utilization—General Hospital/Acute Care—Surgery Discharges/1,000 MM,* increased without statistical significance. The last measure, *Inpatient Utilization—General Hospital Acute Care—Medicine Average Length of Stay* remained the same in 2009 compared to 2008.

All of the Utilization of Services measures, except for *Ambulatory Care—ED Visits/1,000 MM* and *Inpatient Utilization: Maternity Average Length of Stay,* ranked above the national HEDIS 2008 Medicaid 50th percentile, indicating that Colorado Medicaid health plans experienced more utilization than other Medicaid health plans. The report presents rates for measures in the Utilization of Services dimension for informational purposes only. The rates do not indicate the quality, access, or timeliness of care and services since these are dependent upon several variables, including the demographics of the population served. These measures are typically used by health plans to track and trend their own usage from year to year. Readers should exercise caution when connecting these data to the efficacy of the program because many factors influence these data.

Improvement Opportunities Overview

The Colorado Medicaid health plans have many areas with opportunities to focus their attention on making improvements across all of the dimensions of care. The report includes more detailed recommendations and best practices at the end of the Pediatric Care, Access to Care, and Living With Illness sections of the report. However, the health plans should look for ways to improve their HEDIS performance overall. In addition to identifying the reasons for low performance on a measure-by-measure basis, each health plan should make an effort to improve data completeness. Efforts to improve the submission of encounter data have the potential to improve all HEDIS rates as well as reduce the burden of medical record review for health plans. Health plans have found it beneficial to perform a "data refresh" prior to HEDIS reporting to compensate for a claims and encounter data lag. Another method to improve data completeness is to incorporate supplemental data. Health plans should consider alternate sources of supplemental data that can be made available to them. The use of state registries such as the Colorado Immunization Information System (CIIS) have proved useful in improving health plans' rates. Other sources of supplemental data include disease registries and data from vendors such as labs, radiology facilities, and pharmacies.

To improve performance on HEDIS measures, health plans should also identify barriers that may exist. A comprehensive barrier analysis can assist in targeting interventions that would bring about the most effective results. Several Web sites provide reliable intervention information. The AHRQ Health Care Innovations Exchange Web site provides documentation of successful interventions addressing a wide range of barriers.[1-2] More importantly, it also provides examples of interventions that were not successful. A review of preventive service interventions with corresponding task force ratings can also be found on the community guide Web site.[1-3] Once barriers are identified, several successful interventions can be used to overcome them. These include provider interventions to educate, inform, and/or reward providers. Other interventions can be used with members to address any cultural barriers and to educate and inform health plan members of any required services.

Health plans should be given the opportunity and routinely encouraged to share successes. Clearly documenting the details of an intervention and the results facilitate its transition from study to practice. Even if a health plan does not plan to publish its study, adapting aspects of the Standards for QUality Improvement Reporting Excellence (SQUIRE) permits the health plan to share its successes with results that can be replicated by other health plans.[1-4] The Center for Health Transformation has provided a location for each state to report best practices for the Medicaid program. While outcomes are not provided, many states have included detailed descriptions of their successful initiatives/reforms.[1-5]

[1-2] AHRQ Innovations Exchange. Innovation and Tools to Improve Quality and Reduce Disparities. Available at http://www.innovations.ahrq.gov/index.aspx
[1-3] The Community Guide. What works to promote health. Available at: http://www.thecommunityguide.org. Assessed August 7, 2009.
[1-4] Davidoff, F, Batalden, P, et al. Publication Guidelines for Improvement Studies in Health Care: Evolution of the SQUIRE Project. Ann Intern Med. 2008, 149:670-676.
[1-5] Center for Health Transformation. Better Health, Lower Cost. Available at: http://www.healthtransformation.net. Assessed August 7, 2009.

Limitations

The reported rates and weighted averages for the Colorado Medicaid health plans 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 reimburses FQHCs on a cost-plus basis and requires submission of an encounter claim form to track services provided. The Department's transactional system (the Medicaid Management Information System [MMIS]) allows only one Common Procedural Terminology (CPT) code on an FQHC encounter claim form, and not all FQHCs submit CPT codes. Because of this, the data for services provided by FQHCs may not be complete, and rates for several of the HEDIS measures may be underreported for both the FFS and PCPP programs. The rates for hybrid measures that rely on medical record documentation would not be impacted as long as the medical record can be located. The rates for administrative measures that rely on CPT codes to identify services would be negatively impacted, potentially missing services provided at an FQHC (e.g., *Children's & Adolescents' Access to Primary Care Practitioners*, *Adults' Access to Preventive/Ambulatory Health Services*).
- The HEDIS measures presented in this report may not be the entire set of HEDIS measures reported to NCQA by the health plans. The Department specified which measures should be included in this report and used for comparative purposes across the health plans.
- In Colorado, health 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, which can lead to members accessing 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, health plans could choose to report some measures using the hybrid methodology as allowed by NCQA. Health 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 health plans that reported only administrative data.
- Some of the measures presented in this report may not have adequate trending information either because the health plans 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 1-21 show the performance summary results for all Colorado Medicaid health plans for all measures within each dimension of care. Results were calculated using a scoring algorithm based on individual health plan performance relative to the HPL, LPL, and national HEDIS 2008 Medicaid 50th percentile.

The report presents these results 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 weighted average rates for 2008, seven of them improved in 2009. Five of the seven rates did not show statistically significant improvement, while two of the measures, *Childhood Immunization Status—HiB* and *Adolescent Well-Care Visits*, had statistically significant improvements. The remaining six measures—*Childhood Immunization Status—MMR*, *IPV*, and *Hepatitis B*, *Well-Child Visits in the First 15 Months of Life—Zero Visits* and *Six or More Visits*, and *Well-Child Visits in the Third, Fourth, Fifth, and Sixth Years of Life*—showed declines that were not statistically significant.

While none of the statewide weighted averages for the Pediatric Care measure rates performed better than the national HEDIS 2008 Medicaid 50th percentile, several health plans performed better than the national HEDIS 2008 Medicaid 50th percentile, in addition to reaching the HPL for particular measures.

The following tables show how each health plan performed compared to the HPLs and LPLs, as established by the national HEDIS percentiles, for each Pediatric Care measure and its submeasures.

Table 1-1—Colorado Medicaid HEDIS 2009 Performance Summary: Pediatric Care

Health 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	★★	★	★★	★	★	★★	★

Table 1-2—Colorado Medicaid HEDIS 2009 Performance Summary: Pediatric Care

Health 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*
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)*

Access to Care

All of the weighted averages for the *Adults' Access to Preventive/Ambulatory Health Services* measures demonstrated statistically significant improvement. However, except for the *Annual Dental Visit* measure, none of the Access to Care measures' weighted averages performed better than the national HEDIS 2008 Medicaid 50th percentile. Although one of the *Prenatal and Postpartum Care* rates showed a decline, while the other rate showed improvement since 2008, none of the changes were statistically significant. There is no table for the *Weight Assessment and Counseling for Nutrition and Physical Activity for Children/Adolescents* since this is a new HEDIS measure and HPLs and LPLs have not yet been established.

The following tables show how each health plan performed compared to the HPLs and LPLs, as established by the national HEDIS percentiles, for each Access to Care measure and its submeasures.

Table 1-3—Colorado Medicaid HEDIS 2009 Performance Summary: Access to Care

Health Plan Name	*Timeliness of Prenatal Care*	*Postpartum Care*	*Adults' Access 20–44*	*Adults' Access 45–64*	*Adults' Access 65+*
DHMC	★★	★★	★	★	★
RMHP	★★★	★★★	★★	★★	★★★
PCPP	★	★★	★★	★★	★★
FFS	★	★	★★	★★	★

Table 1-4—Colorado Medicaid HEDIS 2009 Performance Summary: Access to Care—*Children's & Adolescents' Access to PCPs*

Health Plan Name	*12–24 Months*	*25 Months–6 Years*	*7–11 Years*	*12–19 Years*
DHMC	★	★	★	★★
RMHP	★★	★★	★★	★★
PCPP	★	★	★	★
FFS	★	★	★	★

Table 1-5—Colorado Medicaid HEDIS 2009 Performance Summary: Access to Care—*Annual Dental Visit*

Health Plan Name	*2–3 Years*	*4–6 Years*	*7–10 Years*	*11–14 Years*	*15–18 Years*	*19–21 Years*	*Total*
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)*

-- No percentiles available for comparison.
♦ MCO not required to report.

Living With Illness

Both rates for the *Cholesterol Management for Patients With Cardiovascular Conditions* showed declines that were not statistically significant and remained below the national HEDIS 2008 Medicaid 50th percentile. Rates for the *Annual Monitoring for Patients on Persistent Medications* measure showed improvement that was not statistically significant, but all five submeasures ranked higher than the national HEDIS 2008 Medicaid 50th percentile.

The following tables show how each health plan performed compared to the HPLs and LPLs, as established by the national HEDIS percentiles, for each Living with Illness measure and its submeasures.

Table 1-6—Colorado Medicaid HEDIS 2009 Performance Summary: Living With Illness

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

Table 1-7—Colorado Medicaid HEDIS 2009 Performance Summary: Living With Illness

Use of Appropriate Medications for People With Asthma				
Health Plan Name	***5–9 Years***	***10–17 Years***	***18–56 Years***	***Total***
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)*
"NA" means "Not Applicable."		

Table 1-8—Colorado Medicaid HEDIS 2009 Performance Summary: Living With Illness								
Comprehensive Diabetes Care								
Health Plan Name	*HbA1c Testing*	*HbA1c Poor Control*	*Eye Exam Performed*	*LDL-C Screening Performed*	*LDL-C Control (<100 mg/dL)*	*Medical Attention for Diabetic Nephropathy*	*Blood Pressure Control <130/80*	*Blood Pressure Control <140/90*
DHMC	★★	★★★	★★	★★	★★★	★★	★★★	★★
RMHP	★★	★★★	★★	★★	★★★	★★	★★★	★★★
PCPP	★	★	★	★	★	★	★	★
FFS	★	★	★	★	★	★	★	★

Note: Audit means and percentiles are not available for the new HbA1c Control <8.0%; therefore, this measure is not presented in this table.

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

For the Utilization of Services measures higher rates do not necessarily indicate improved performance "given the lack of correlation between quality and utilization."[1-6] The star tables indicate where the health plans' rates were compared to national audit means and percentiles. The report presents these data for informational purposes only. Health plans that performed above the HPL (three stars) did not necessarily perform better or worse than health plans with rates that fell below the LPL (one star). Most of the measures in the Utilization of Services domain had higher rates when compared to the national HEDIS 2008 Medicaid 50th percentile. From 2008 to 2009, however, six measures showed increases, with only one measure having a statistically significant increase. Nine measures showed declines, with one measure having a statistically significant decline. One measure remained the same from 2008 to 2009.

The following tables show how each health plan performed compared to the HPLs and LPLs, as established by the national HEDIS percentiles, for each Utilization of Services measure and its submeasures. However, because the Utilization of Services measures are all designed to be informational measures 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. Some health plans may achieve high quality more efficiently than others, given the lack of correlation between quality and utilization. Further research should examine whether potential differences in patient populations, health plan characteristics, and provider supply account for these correlations.[1-7]

Table 1-9—Colorado Medicaid HEDIS 2009 Performance Summary: *Ambulatory Care*

Code	*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)*

[1-6] NLM Gateway, A service of the National Institutes of Health. Quality and Utilization in Managed Care: Is More Care Better? Available at: http://gateway.nlm.nkh.gov/MeetingAbstracts/ma?f=103624351.html. Last accessed October 20, 2009.

[1-7] Ibid.

Table 1-10—Colorado Medicaid HEDIS 2009 Performance Summary: *Inpatient Utilization (Discharges Per 1,000 MM)*				
Code	*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 1-11—Colorado Medicaid HEDIS 2009 Performance Summary: *Inpatient Utilization (Days Per 1,000 MM)*				
Code	*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 1-12—Colorado Medicaid HEDIS 2009 Performance Summary: *Inpatient Utilization (Average Length of Stay)*				
Code	*Total Inpatient—Average LOS*	*Medicine—Average LOS*	*Surgery—Average LOS*	*Maternity—Average LOS*
DHMC	★★	★★	★★	★★
RMHP	★★	★★	★★	★
PCPP	★★★	★★★	★★★	★★
FFS	★★	★★	★★★	★★

Table 1-13—Colorado Medicaid HEDIS 2009 Performance Summary: *Antibiotic Utilization*				
Code	*Average Scrips PMPY for Antibiotics Total*	*Average Days Supplied Per Antibiotic Scrip Total*	*Average Scrips PMPY for Antibiotics of Concern Total*	*Percentage of Antibiotics of Concern of All Antibiotic Scrips Total*
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 1-14—Colorado Medicaid HEDIS 2009 Performance Summary: *Frequency of Selected Procedures (Back Surgery) Per 1,000 MM*				
Code	*Females 20–44 Years*	*Females 45–64 Years*	*Males 20–44 Years*	*Males 45–64 Years*
DHMC	★	★★	★	★
RMHP	★★★	★★★	★★★	★★
PCPP	★★	★★★	★★	★★
FFS	★★	★★★	★★	★★

Table 1-15—Colorado Medicaid HEDIS 2009 Performance Summary: *Frequency of Selected Procedures (Cholecystectomy) Per 1,000 MM*						
Code	*Cholecystectomy, Closed Females 15–44 Years*	*Cholecystectomy, Closed Females 45–64 Years*	*Cholecystectomy, Closed Males 30–64 Years*	*Cholecystectomy, Open Females 15–44 Years*	*Cholecystectomy, Open Females 45–64 Years*	*Cholecystectomy, Open Males 30–64 Years*
DHMC	★	★	★	★★	★★	★★
RMHP	★★★	★★★	★★	★★	★★★	★
PCPP	★★	★★	★★★	★★	★★	★
FFS	★★★	★★	★★★	★★	★★	★★★

Table 1-16—Colorado Medicaid HEDIS 2009 Performance Summary: *Frequency of Selected Procedures (Non-Obstetric D & C) Per 1,000 MM*		
Code	*15–44 Years*	*45–64 Years*
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 1-17—Colorado Medicaid HEDIS 2009 Performance Summary: *Frequency of Selected Procedures (Hysterectomy) Per 1,000 MM*				
Code	*Hysterectomy Abdominal 15–44 Years*	*Hysterectomy Abdominal 45–64 Years*	*Hysterectomy Vaginal 15–44 Years*	*Hysterectomy Vaginal 45–64 Years*
DHMC	★	★	★★	★
RMHP	★★	★★	★★★	★★★
PCPP	★★	★	★★★	★★
FFS	★★	★★	★★★	★★★

Table 1-18—Colorado Medicaid HEDIS 2009 Performance Summary: *Frequency of Selected Procedures (Lumpectomy) Per 1,000 MM*		
Code	*15–44 Years*	*45–64 Years*
DHMC	★	★
RMHP	★★	★★
PCPP	★★	★
FFS	★★	★★

Table 1-19—Colorado Medicaid HEDIS 2009 Performance Summary: *Frequency of Selected Procedures (Mastectomy) Per 1,000 MM*		
Code	*15–44 Years*	*45–64 Years*
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 1-20—Colorado Medicaid HEDIS 2009 Performance Summary: *Frequency of Selected Procedures (Myringotomy) Per 1,000 MM*		
Code	***0–4 Years***	***5–19 Years***
DHMC	★	★
RMHP	★★	★★
PCPP	★★	★★
FFS	★★	★★

Table 1-21—Colorado Medicaid HEDIS 2009 Performance Summary: *Frequency of Selected Procedures (Tonsillectomy) Per 1,000 MM*		
Code	***0–9 Years***	***10–19 Years***
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)*

Summary of Colorado Medicaid HEDIS 2009 Measures

HEDIS is a nationally recognized, standard set of measures used for measuring quality of care for both publicly funded and commercial health plans. The Department selected HEDIS measures from the standard Medicaid set shown in Table 2-1. The Colorado Medicaid health plans were required to report these measures in 2009. The *Annual Dental Visit* measure was only required for FFS and PCPP.

Table 2-1—Colorado Medicaid HEDIS 2009 Measures

Standard HEDIS 2009 Measures	2009 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-Child Visits in the First 15 Months of Life	*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	*Well-Child Visits in the Third, Fourth, Fifth, and Sixth Years of Life*
Adolescent Well-Care Visits	*Adolescent Well-Care Visits*
Children's & Adolescents' Access to Primary Care Practitioners	*Children's & Adolescents' Access to Primary Care Practitioners—Ages 12 to 24 Months* *Children's & Adolescents' Access to Primary Care Practitioners—Ages 25 Months to 6 Years* *Children's & Adolescents' Access to Primary Care Practitioners—Ages 7 to 11Years* *Children's & Adolescents' Access to Primary Care Practitioners—Ages 12 to 19 Years*
Annual Dental Visit ***(FFS and PCPP only)***	*Annual Dental Visit—Ages 2 to 3 Years* *Annual Dental Visit—Ages 4 to 6 Years* *Annual Dental Visit—Ages 7 to 10 Years* *Annual Dental Visit—Ages 11 to 14 Years* *Annual Dental Visit—Ages 15 to 18 Years* *Annual Dental Visit—Ages 19 to 21 Years* *Annual Dental Visit—Total*
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 20–44 Years* *Adults' Access to Preventive/Ambulatory Health Services—Ages 45–64 Years* *Adults' Access to Preventive/Ambulatory Health Services—Ages 65 Years and Older*
Use of Appropriate Medications for People With Asthma	*Use of Appropriate Medications for People With Asthma—Ages 5 to 9 Years* *Use of Appropriate Medications for People With Asthma—Ages 10 to 17 Years* *Use of Appropriate Medications for People With Asthma—Ages 18 to 56 Years* *Use of Appropriate Medications for People With Asthma—Total*
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*
Comprehensive Diabetes Care	*Comprehensive Diabetes Care—Hemoglobin A1c (HbA1c) Testing* *Comprehensive Diabetes Care—HbA1c Poor Control (>9.0%)* *Comprehensive Diabetes Care—HbA1c Control (<8.0%)* *Comprehensive Diabetes Care—Eye Exam (Retinal) Performed* *Comprehensive Diabetes Care—LDL-C Screening Performed* *Comprehensive Diabetes Care—LDL-C Control (<100 mg/dL)* *Comprehensive Diabetes Care—Medical Attention for Nephropathy* *Comprehensive Diabetes Care—Blood Pressure Control (<130/80 mm Hg)* *Comprehensive Diabetes Care—Blood Pressure Control (<140/90 mm Hg)*

Table 2-1—Colorado Medicaid HEDIS 2009 Measures	
Standard HEDIS 2009 Measures	**2009 Measures**
Antibiotic Utilization	*Antibiotic Utilization—Average Scrips PMPY for Antibiotics* *Antibiotic Utilization—Average Days Supplied per Antibiotic Scrip* *Antibiotic Utilization—Average Scrips PMPY for Antibiotics of Concern* *Antibiotic Utilization—Percentage of Antibiotics of Concern of All Antibiotic Scrips*
Annual Monitoring for Patients on Persistent Medications	*Annual Monitoring for Patients on Persistent Medications—ACE Inhibitors or ARBs* *Annual Monitoring for Patients on Persistent Medications—Digoxin* *Annual Monitoring for Patients on Persistent Medications—Diuretics* *Annual Monitoring for Patients on Persistent Medications—Anticonvulsants* *Annual Monitoring for Patients on Persistent Medications—Total*
Frequency of Selected Procedures	*Frequency of Selected Procedures—Myringotomy* *Frequency of Selected Procedures—Tonsillectomy* *Frequency of Selected Procedures—Dilation & Curettage* *Frequency of Selected Procedures—Hysterectomy, Abdominal* *Frequency of Selected Procedures—Hysterectomy, Vaginal* *Frequency of Selected Procedures—Cholecystectomy, Open* *Frequency of Selected Procedures—Cholecystectomy, Closed (laparoscopic)* *Frequency of Selected Procedures—Back Surgery* *Frequency of Selected Procedures—Mastectomy* *Frequency of Selected Procedures—Lumpectomy*
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*

Measure Audit Designations

Through the audit process, each measure reported by a health plan is assigned an NCQA-defined audit designation. Measures can receive one of four predefined audit findings: *Report*, *Not Applicable*, *Not Report*, and *No Benefit*. An audit finding of *Report* indicates that the health plan complied with all HEDIS specifications to produce an unbiased, reportable rate or rates, which can be released for public reporting. Although a health plan may have complied with all applicable specifications, the denominator identified may be too small to report a rate (i.e., less than 30). In this case, the measure would be assigned a *Not Applicable* audit finding. An audit finding of *Not Report* indicates that the rate could not be publicly reported because the measure deviated from HEDIS specifications such that the reported rate was significantly biased or a health plan chose not to report the measure. A *No Benefit* audit finding indicates that the health plan did not offer the benefit required by the measure.

NCQA allows health plans to rotate HEDIS measures in some circumstances. A rotation schedule enables health plans to use the audited and reportable rate from the prior year. This strategy allows health plans with higher rates for some measures to direct resources toward improving rates for other measures. Rotated measures must have been audited in the prior year and must have received a "*Report*" audit designation. Only hybrid measures are eligible for rotation.

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 health 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 2009 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 discusses this for each measure.

Childhood Immunization Status

- NCQA revised the required number of doses for the HiB vaccine per recommendations by the Advisory Committee on Immunization Practices (ACIP) to defer the third HiB booster during a vaccine shortage.[2-1]

Cholesterol Management for Patients With Cardiovascular Conditions

- This measure had several minor coding revisions. One coding revision was the removal of the diagnosis-related group (DRG) codes formerly allowed for this measure to identify the denominator. If a health plan does not acquire the ICD-9 or CPT codes from the UB04 claim, it could miss denominator events.

Comprehensive Diabetes Care

- NCQA added the *HbA1c Control (<8.0%)* and *HbA1c Control (<7.0%)* indicators this year. The Colorado Medicaid health plans will report the *HbA1c Control (<8.0%)* rate this year. Reporting the *HbA1c Control (<7.0%)* rate requires a larger sample size in addition to applying additional exclusion criteria. The Colorado Medicaid health plans were not required to report the *HbA1c Control (<7.0%)* rate this year.

[2-1] HEDIS® 2009 Technical Specifications, National Committee of Quality Assurance, p. 68.

Performance Levels

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

Comparative information in this report is based on national NCQA Medicaid HEDIS 2008 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 health plans with reported rates above the 90th percentile (HPL) rank in the top 10 percent of all health plans nationally. Similarly, health plans reporting rates below the 25th percentile (LPL) rank in the bottom 25 percent nationally for that measure.

There are two measures 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 these measures only, *lower* rates indicate better performance. The measures are:

- *Well-Child Visits in the First 15 Months of Life—Zero Visits*. (For this measure, lower rates of no visits indicate better care.)
- *Comprehensive Diabetes Care—HbA1c Poor Control (>9.0%)* (For this measure, lower rates of poor control indicate better care.)

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

Performance Trend Analysis

In Appendix C, the column titled "2008–2009 Trend" shows, by measure, the comparison between the 2008 results and the 2009 results for Colorado Medicaid health plans. Trends are shown graphically, using the key below:

- ⬆ Denotes a substantial improvement in performance (the rate has increased more than 10 percentage points)
- ⬅➡ Denotes no substantial change in performance (the rate has not changed more than 10 percentage points)
- ⬇ Denotes a substantial decline in performance (the rate has decreased more than 10 percentage points)

Different symbols (▲▼) are used to indicate a substantial performance change for two measures. *Well-Child Visits in the First 15 Months of Life—Zero Visits* and *Comprehensive Diabetes Care—HbA1c Poor Control (>9.0%)* are the only measures for which a decrease in the rate indicates better performance. For these measures, a downward-pointing triangle (▼) denotes a substantial *decline* in performance, as indicated by an *increase* of more than 10 percentage points in the rate. An upward-pointing triangle (▲) denotes a substantial *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 health plan performance on a given measure is the *weighted* average rate. The use of a weighted average, based on the health plan's eligible population for that measure, provides the most representative rate for the overall Colorado Medicaid population. Weighting the rate by the health plan's eligible population size ensures that rates for a health plan with 125,000 members, for example, have a greater impact on the overall Colorado Medicaid rate than rates for a health plan with only 10,000 members.

Significance Testing

In this report, differences between the 2008 and 2009 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 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 2008 and 2009 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 health 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 health 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 health plan has 10,000 members who qualify for the *Prenatal and Postpartum Care* measure. The health plan chooses to perform the hybrid method. After randomly selecting 411 eligible members, the health plan finds that 161 members have evidence of a postpartum visit using administrative data. The health plan then obtains and reviews medical records for the 250 members who do 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 health plan finds that 4,000 members out of the 10,000 have 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 health plans and even across measures for the same health 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 Medicaid health 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 health plans 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.

Sampling error can affect the accuracy of results. For example, a health 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 meet the target. For internal purposes, health plans should understand and consider the issue of sampling error when implementing interventions.

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

For each measure, a health plan ranking presents the reported rate in order from highest to lowest, with bars representing the established HPL, LPL, and the national HEDIS 2008 Medicaid 50th percentile. In addition, the report presents the 2009, 2008, and 2007 Colorado Medicaid weighted averages for comparison purposes.

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

3. How are Colorado health plans performing overall?

For each dimension, a performance profile analysis compares the 2009 Colorado Medicaid weighted average for each rate with the 2008 and 2007 Colorado Medicaid weighted averages and the national HEDIS 2008 Medicaid 50th percentile if these rates are available.

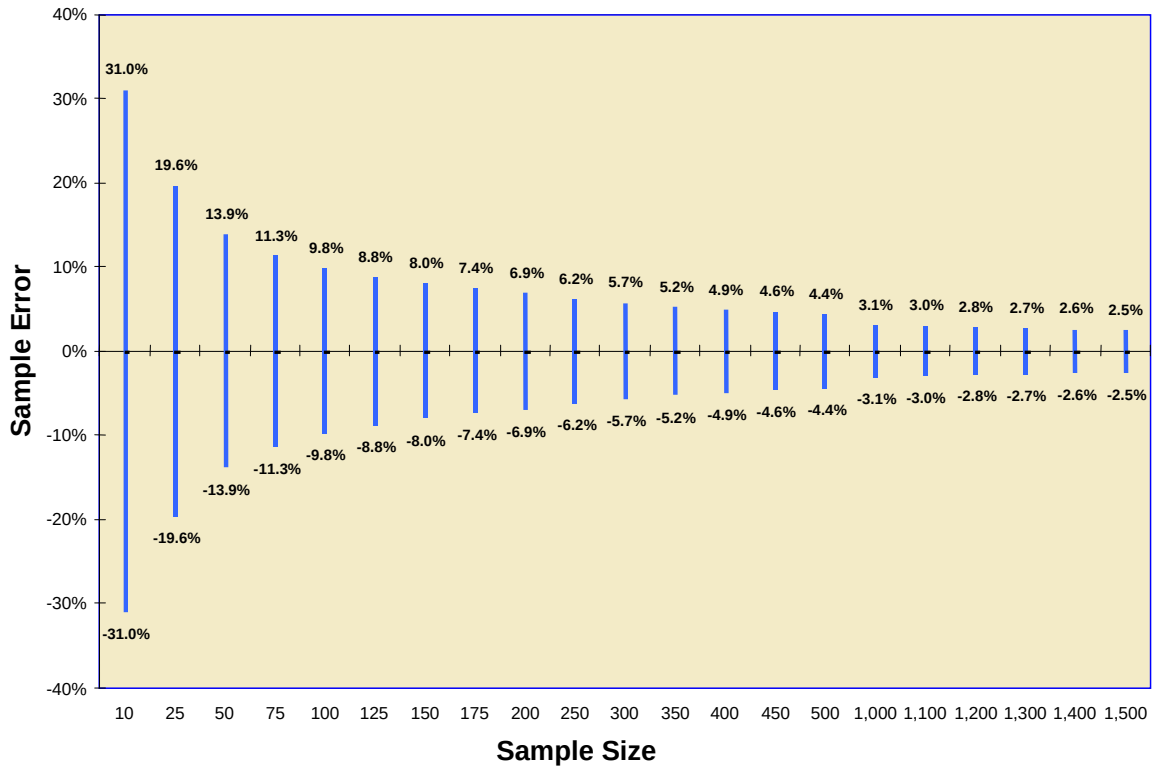
Understanding Sampling Error

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. Health 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 health 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.

Health Plan Name Key

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

Table 2-2—2009 Colorado Health Plans	
Code	**Health 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 an integral component of the effort to prevent, recognize, and treat health conditions that can result in significant developmental consequences for children and adolescents. In 2007, 62 percent of children in Colorado had a regular primary care provider (PCP) and made a preventive care visit at least once 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. In 2008, 80.1 percent of U.S. children from 19 to 35 months of age received complete immunizations.[3-2] In 2007, almost one-fourth of children 2 and 3 years of age in the United States lacked at least one recommended immunization.[3-3]

Healthy People 2010 set a goal of increasing the proportion of young children (19–35 months of age) who receive all vaccines 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 a mid-course review, the proportion of fully immunized young children in the nation had achieved 29 percent of the targeted change.[3-5]

In 2008, national coverage was 76.1 percent for the *Combination #2* vaccine series (referred to as 4:3:1:3:3:1, which indicates four doses of DTaP, three doses of IPV, one dose of MMR, three doses of HiB, three doses of Hepatitis B, and one dose of VZV). The coverage estimate for individual vaccines in the series was 90 percent or more, except for coverage of four or more doses of DTaP, which was 84.6 percent.[3-6]

[3-1] The 2008 Colorado Health Report Card. The Colorado Health Foundation. Available at: http://www.coloradohealthreportcard.org/ReportCard/2008/subdefault.aspx?id=2774. Accessed on August 31, 2009.

[3-2] United Health Foundation. America's Health Rankings. Available at: http://www.americashealthrankings.org/2008/immunization.html. Accessed on August 31, 2009.

[3-3] National Committee for Quality Assurance. The State of Health Care Quality, 2008. Available at: http://www.ncqa.org/Portals/0/Newsroom/SOHC/SOHC_08.pdf. Accessed on August 31, 2009.

[3-4] Healthy People 2010: Objectives for Improving Health. Available at: http://www.healthypeople.gov/Document/HTML\Volume1\14Immunization.htm. Accessed on August 31, 2009.

[3-5] Healthy People 2010: Midcourse Review. Available at: http://www.healthypeople.gov/data/midcourse/pdf/fa14.pdf. Accessed on August 31, 2009.

[3-6] Centers for Disease Control and Prevention. National, State, and Local Area Vaccination Coverage Among Children Aged 19–35 Months—United States, 2008. MMWR Morb Mortal Wkly Rep. 2009 Aug 28;58(33):921-6. Available at: http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5833a3.htm?s_cid=mm5833a3_e. Accessed on August 31, 2009.

The following pages provide detailed analysis of the Colorado Medicaid health plans' 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*

Childhood Immunization Status

Over the last 50 years, childhood vaccination has led to dramatic declines in many life-threatening diseases such as polio, tetanus, whooping cough, mumps, measles, and meningitis. In unvaccinated children, these diseases can cause blindness, hearing loss, diminished motor functioning, liver damage, coma, and death. For example, discontinuing the *Haemophilus infuenzae* type B (HiB) immunization would result in approximately 20,000 cases per year of invasive disease and 600 deaths.[3-7] For children 0–6 years of age, the Centers for Disease Control and Prevention (CDC) suggests that children receive the following vaccinations: hepatitis B; rotavirus; diphtheria, tetanus, and pertussis (DTaP); HiB; pneumococcal; inactivated poliovirus (IPV); influenza; measles, mumps, and rubella (MMR); varicella zoster virus (VZV, or chicken pox); hepatitis A; and meningococcal.[3-8]

Colorado ranked last among the 50 states in terms of immunization coverage as recently as 2003, according to National Immunization Survey (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] In 2008, 78.6 percent of Colorado children 19 to 35 months of age received four or more doses of DTaP, three or more doses of IPV, one or more doses of any measles-containing vaccine, three or more doses of HiB, and three or more doses of Hepatitis B vaccine.[3-10]

The Colorado Immunization Information System (CIIS) is a computerized system used to collect and disseminate immunization information.[3-11] Providers can use CIIS to send notices to families of children who are overdue for immunizations, which can improve coverage rates. It also consolidates all immunizations into one easily accessible record for each individual. CIIS currently has participation rates of 100 percent of publicly funded clinics, 79 percent of pediatric practices, and 38 percent of family practice sites in Colorado.[3-12]

The following pages analyze in detail the performance profile and health plan rankings of the Colorado MCOs and the State's FFS and PCPP health plans for the reported rates for this measure.

[3-7] National Committee for Quality Assurance. The State of Health Care Quality 2008. Available at: http://www.ncqa.org/Portals/0/Newsroom/SOHC/SOHC_08.pdf. Accessed on August 31, 2009.

[3-8] Centers for Disease Control and Prevention. 2009 Child & Adolescent Immunization Schedules. Available at: http://www.cdc.gov/vaccines/recs/schedules/child-schedule.htm. Accessed on August 31, 2009.

[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 August 31, 2009.

[3-10] United Health Foundation. America's Health Rankings. Available at: http://www.americashealthrankings.org/2008/pdfs/co.pdf. Accessed on August 31, 2009.

[3-11] Colorado Immunization Information System. Available at: http://coloradoimmunizations.info/ciis/index.htm. Accessed on August 31, 2009.

[3-12] 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.

Health Plan Ranking: Childhood Immunization Status—DTaP

Figure 3-1—Colorado Medicaid HEDIS 2009 Health Plan Ranking: *Childhood Immunization Status—DTaP*

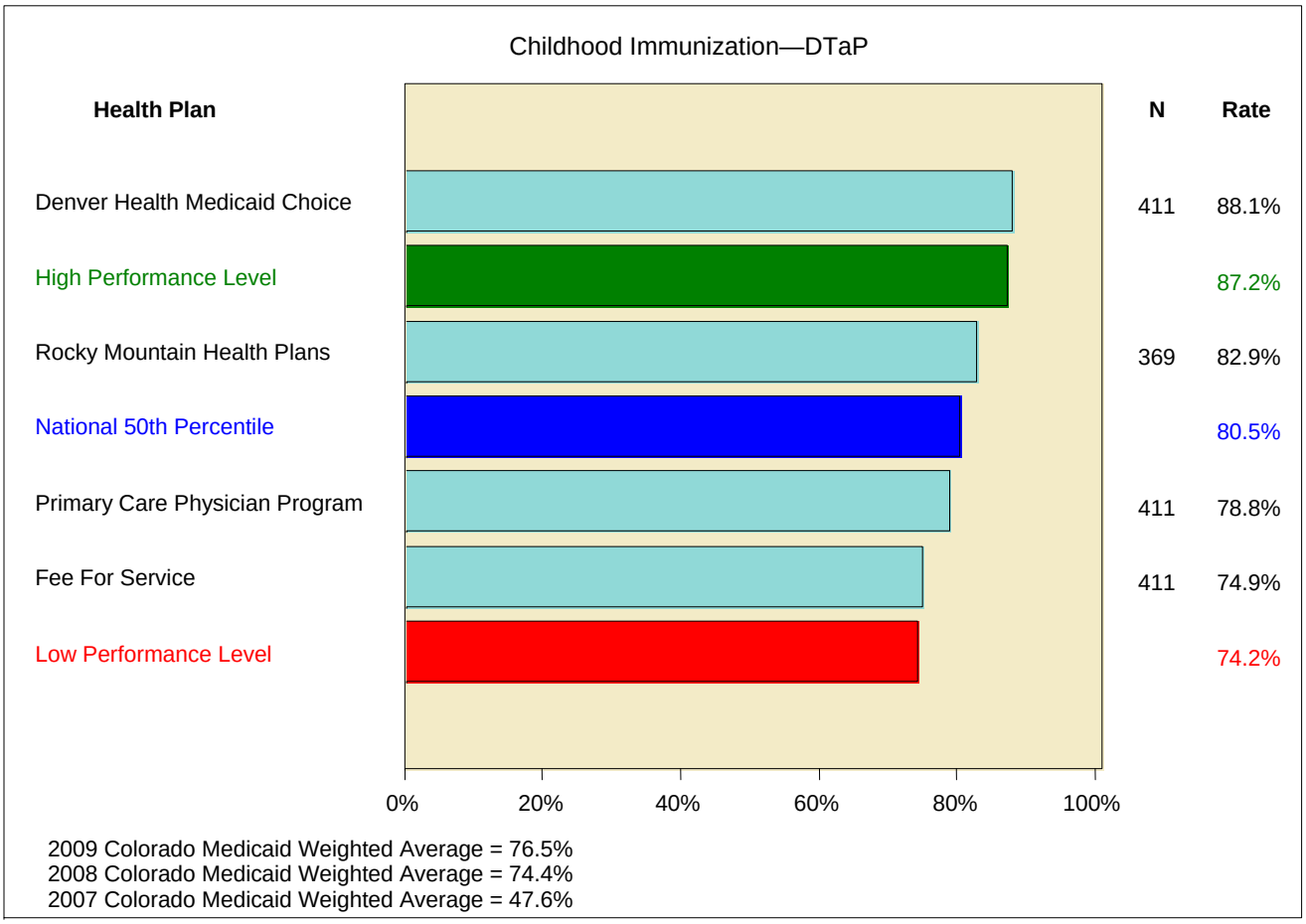


Figure 3-1 shows that the 2009 Colorado Medicaid weighted average for this measure was 76.5 percent, and all of the health plans, except for the FFS health plan, ranked above this rate. All of the health plans ranked above the LPL of 74.2 percent, while only DHMC ranked above the HPL of 87.2 percent. Of the remaining three health plans that ranked above the LPL, only RMHP ranked above the national HEDIS 2008 Medicaid 50th percentile.

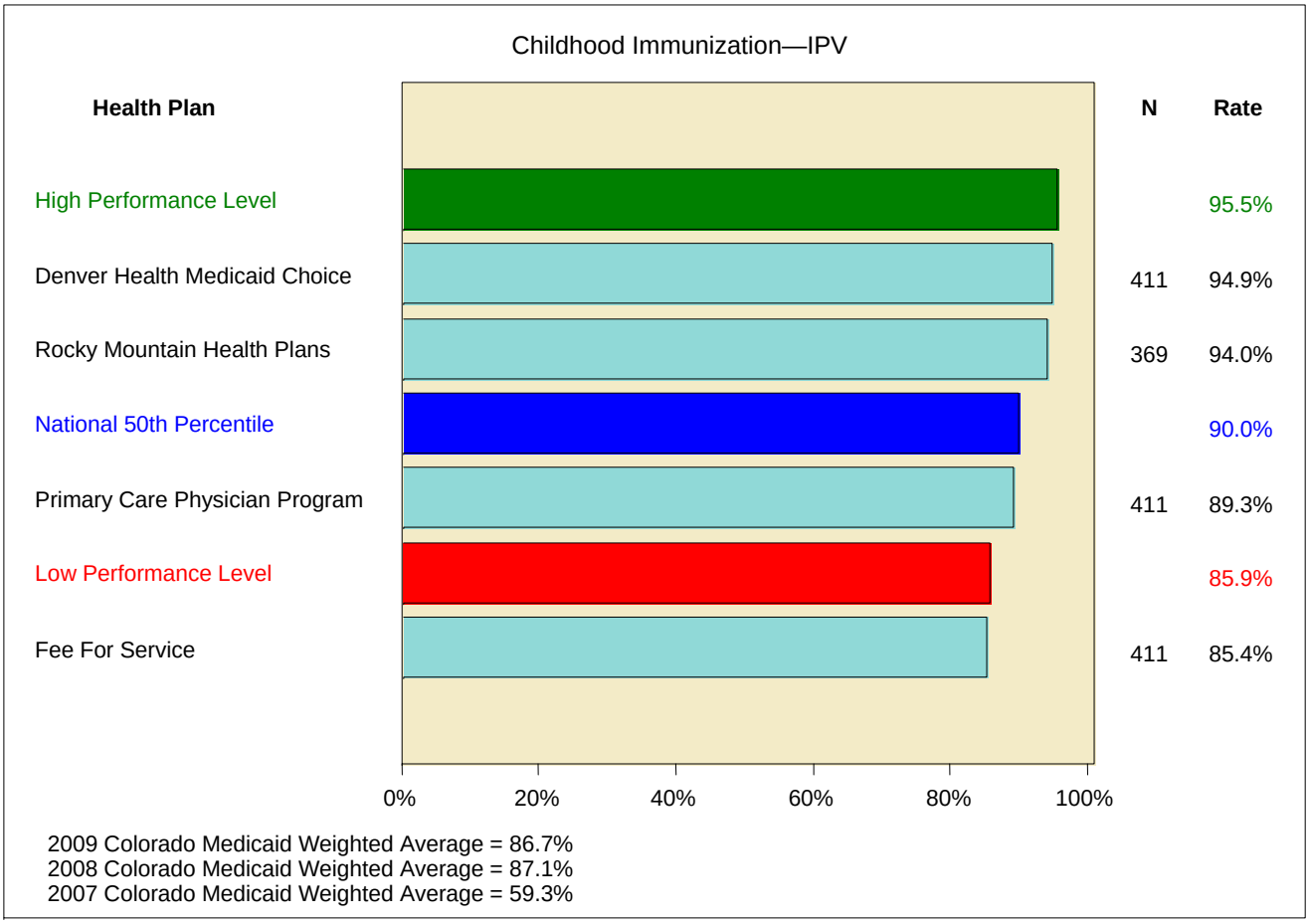
The 2009 Colorado Medicaid weighted average of 76.5 percent showed improvement of 2.1 percentage points from the 2008 weighted average of 74.4 percent. This was not statistically significant.

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.

Health Plan Ranking: Childhood Immunization Status—IPV

Figure 3-2—Colorado Medicaid HEDIS 2009 Health Plan Ranking: *Childhood Immunization Status—IPV*



All of the health plans, except for FFS, ranked above the LPL of 85.9 percent for this measure. While none of the health plans ranked above the HPL of 95.5 percent, DHMC and RMHP both ranked above the national HEDIS 2008 Medicaid 50th percentile of 90.0 percent.

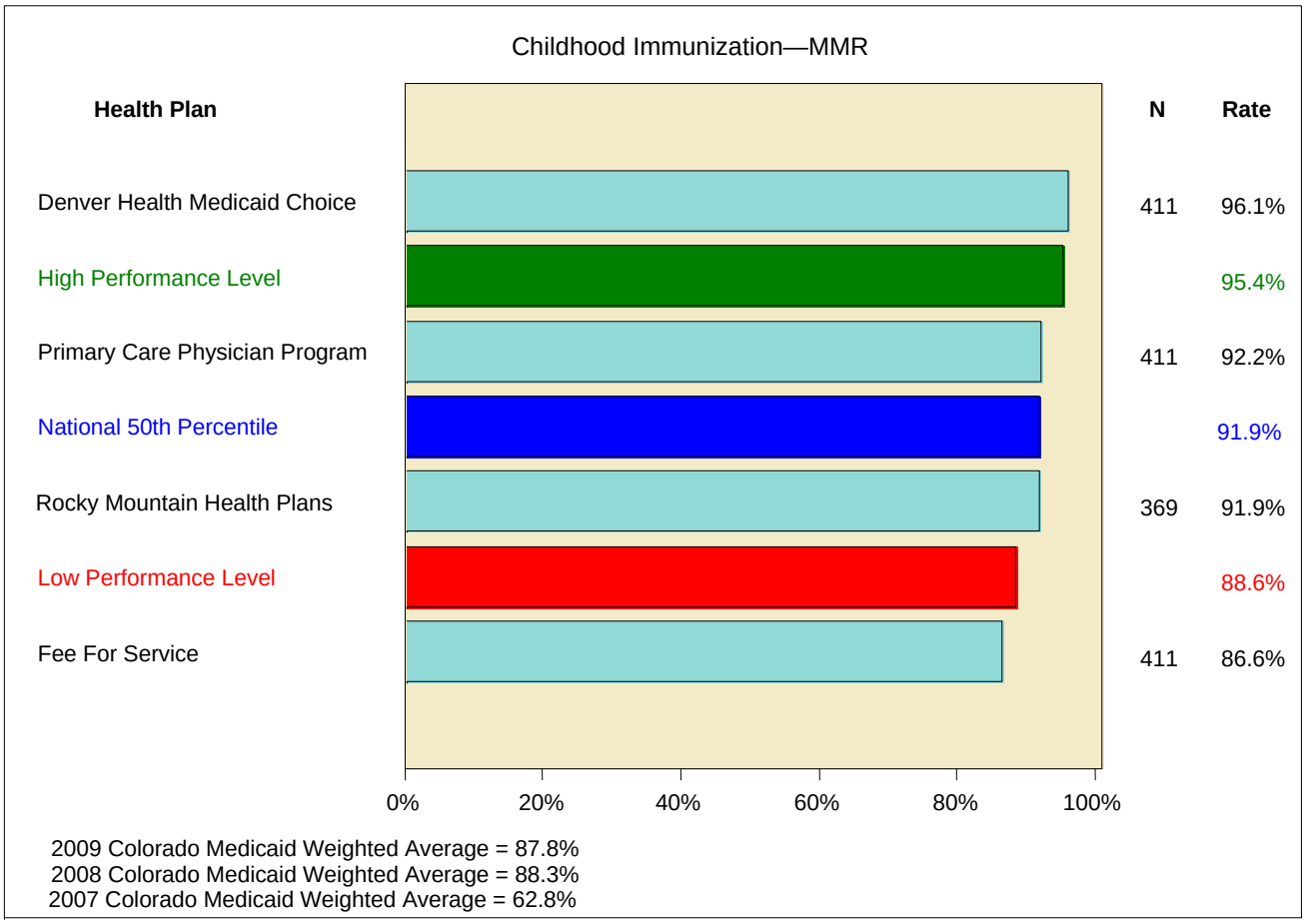
Although the 2009 Colorado Medicaid weighted average of 86.7 percent decreased by 0.4 percentage points from the 2008 weighted average of 87.1 percent, this decrease was not statistically significant.

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.

Health Plan Ranking: Childhood Immunization Status—MMR

Figure 3-3—Colorado Medicaid HEDIS 2009 Health Plan Ranking: *Childhood Immunization Status—MMR*



FFS was the only health plan to perform lower than the LPL of 88.6 percent, while DHMC was the only health plan to perform higher than the HPL of 95.4 percent. PCPP performed higher than the HEDIS 2008 Medicaid 50th percentile, while RMHP scored the same as the 50th percentile.

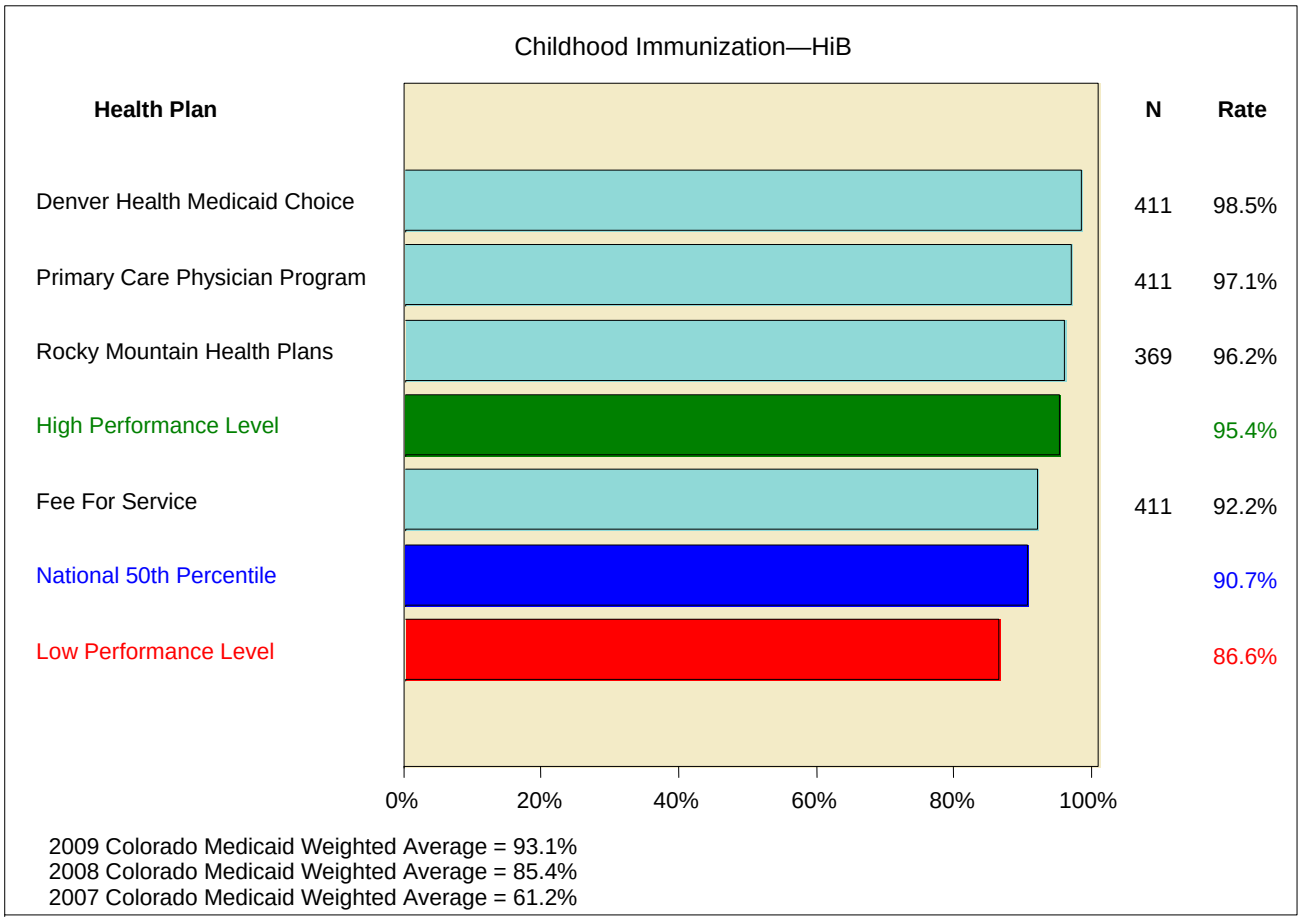
Even though the 2009 Colorado Medicaid weighted average of 87.8 percent decreased 0.5 percentage points compared to the 2008 weighted average of 88.3 percent, the decline was not statistically significant.

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 two HiB vaccinations within the allowable time period and by the member's second birthday.

Health Plan Ranking: Childhood Immunization Status—HiB

Figure 3-4—Colorado Medicaid HEDIS 2009 Health Plan Ranking: *Childhood Immunization Status—HiB*



All of the health plans, except for FFS, performed better than the HPL of 95.4 percent. FFS, however, performed above the LPL of 86.6 percent and above the national HEDIS 2008 Medicaid 50th percentile of 90.7 percentile.

There was a statistically significant increase of 7.7 percentage points in the Colorado weighted average from 2008, when the rate was 85.4 percent, to 2009, when the rate was 93.1 percent.

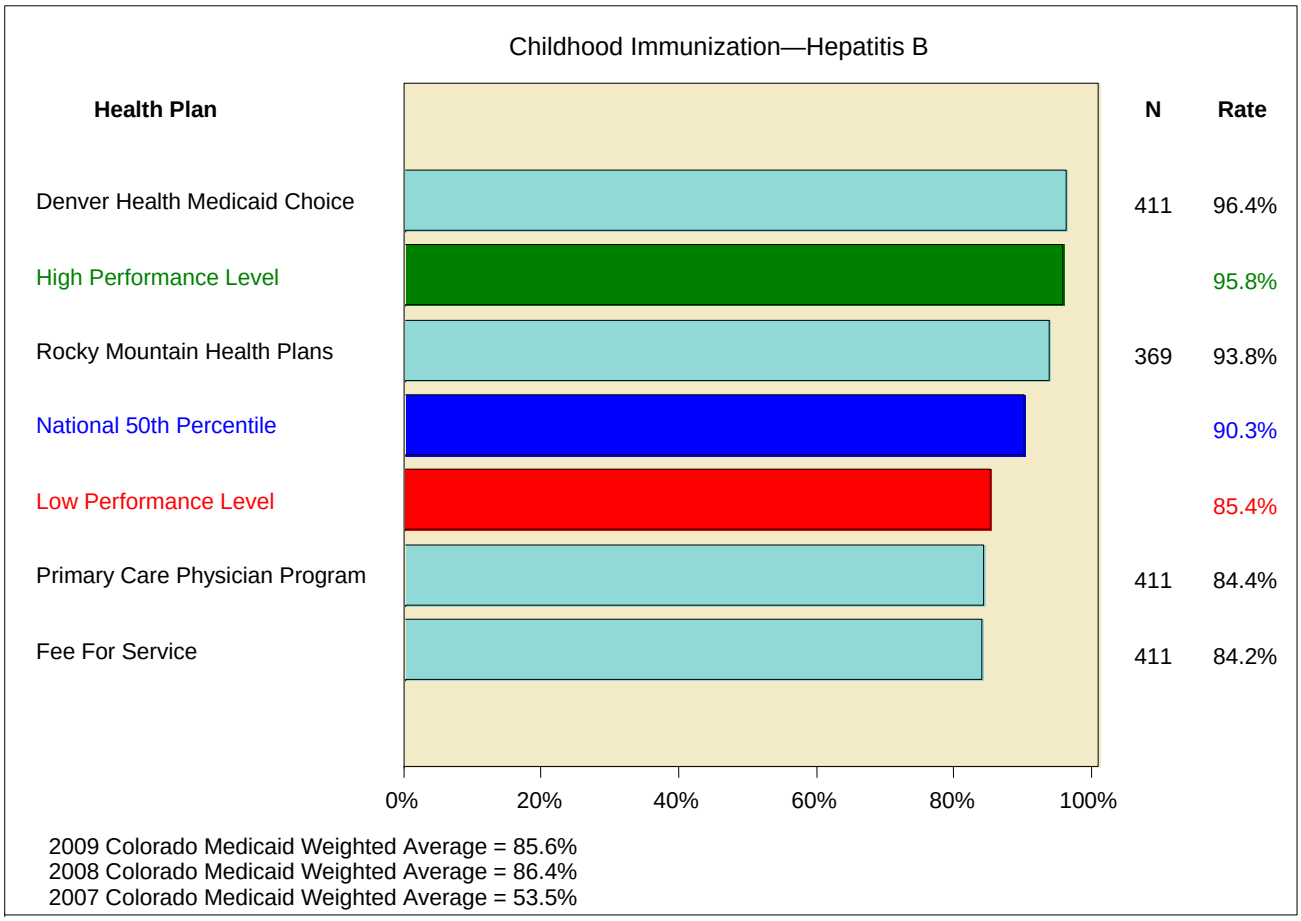
***Note:** Due to the HiB shortage, this year's rate required only two doses of HiB, while last year, three doses were required. This could explain the increases in the rates. The rates, therefore, are not directly comparable to last year's rates and caution should be exercised when reviewing the results.*

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 vaccinations within the allowable time period and by the member's second birthday.

Health Plan Ranking: Childhood Immunization Status—Hepatitis B

Figure 3-5—Colorado Medicaid HEDIS 2009 Health Plan Ranking: *Childhood Immunization Status—Hepatitis B*



PCPP and FFS both performed below the LPL of 85.4 percent, while RMHP and DHMC both performed better than the national HEDIS 2008 Medicaid 50th percentile rate of 90.3 percent. DHMC was the only health plan to perform above the HPL of 95.8 percent.

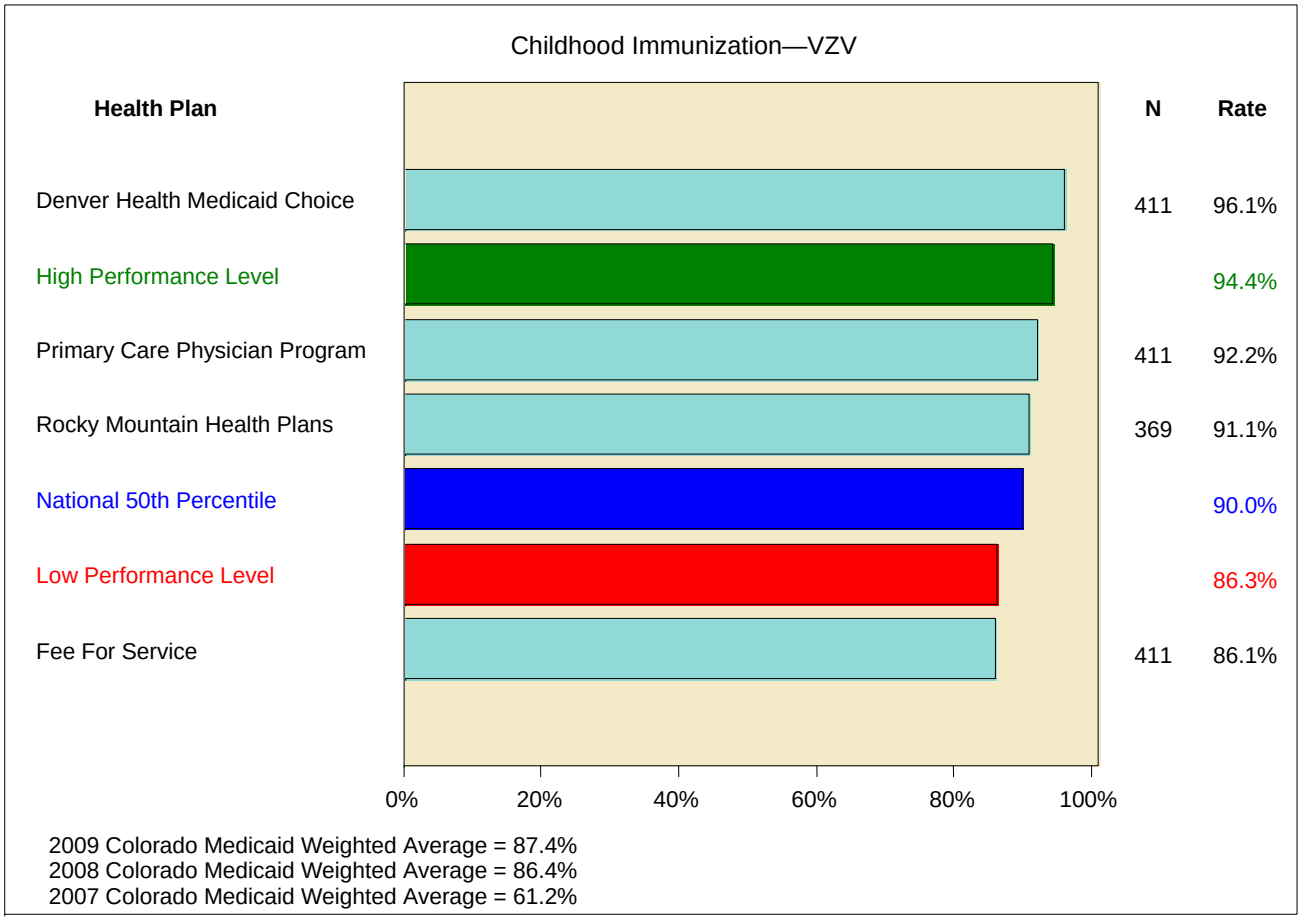
Although the Colorado statewide weighted average decreased 0.8 percentage points from 86.4 percent in 2008 to 85.6 percent in 2009, this decline was not statistically significant.

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.

Health Plan Ranking: Childhood Immunization Status—VZV

Figure 3-6—Colorado Medicaid HEDIS 2009 Health Plan Ranking: *Childhood Immunization Status—VZV*



All of the health plans, except for FFS, performed above the LPL of 86.3 percent and the national HEDIS 2008 Medicaid 50th percentile rate of 90.0 percent. Of the three health plans that performed above the national HEDIS 2008 Medicaid 50th percentile, only DHMC performed above the HPL of 94.4 percent.

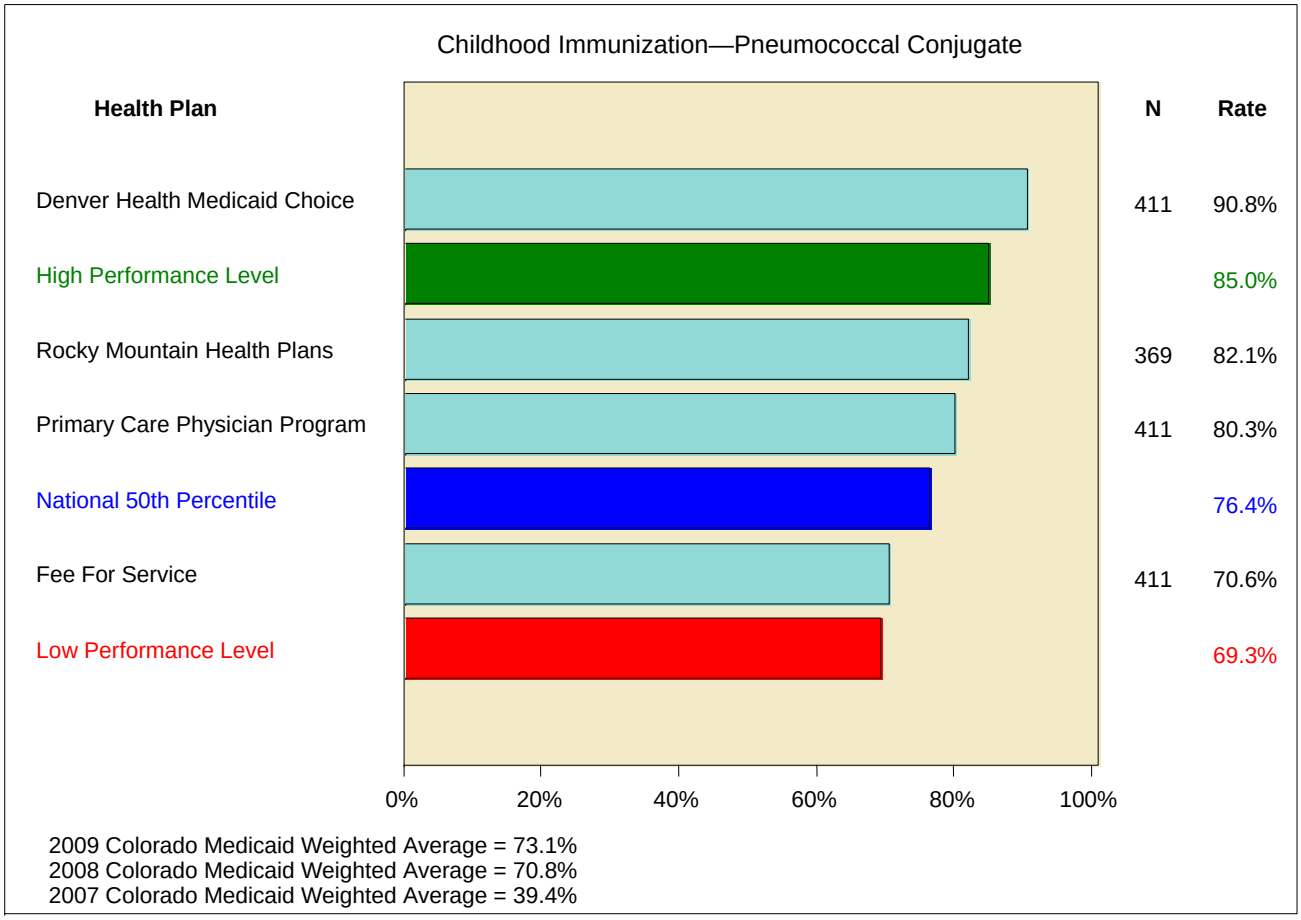
Although the Colorado statewide Medicaid weighted average increased by one percentage point from 86.4 percent in 2008 to 87.4 percent in 2009, the improvement was not statistically significant.

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 pneumococcal conjugate vaccinations within the allowable time period and by the member's second birthday.

Health Plan Ranking: Childhood Immunization Status—Pneumococcal conjugate

Figure 3-7—Colorado Medicaid HEDIS 2009 Health Plan Ranking: *Childhood Immunization Status—Pneumococcal conjugate*



All of the health plans performed higher than the LPL of 69.3 percent, while only three of the four health plans performed better than the national HEDIS 2008 Medicaid 50th percentile of 76.4 percent. Only FFS performed below the national HEDIS 2008 Medicaid 50th percentile. Of the other three health plans that performed above the national HEDIS 2008 Medicaid 50th percentile, only DHMC performed above the HPL of 85.0 percent.

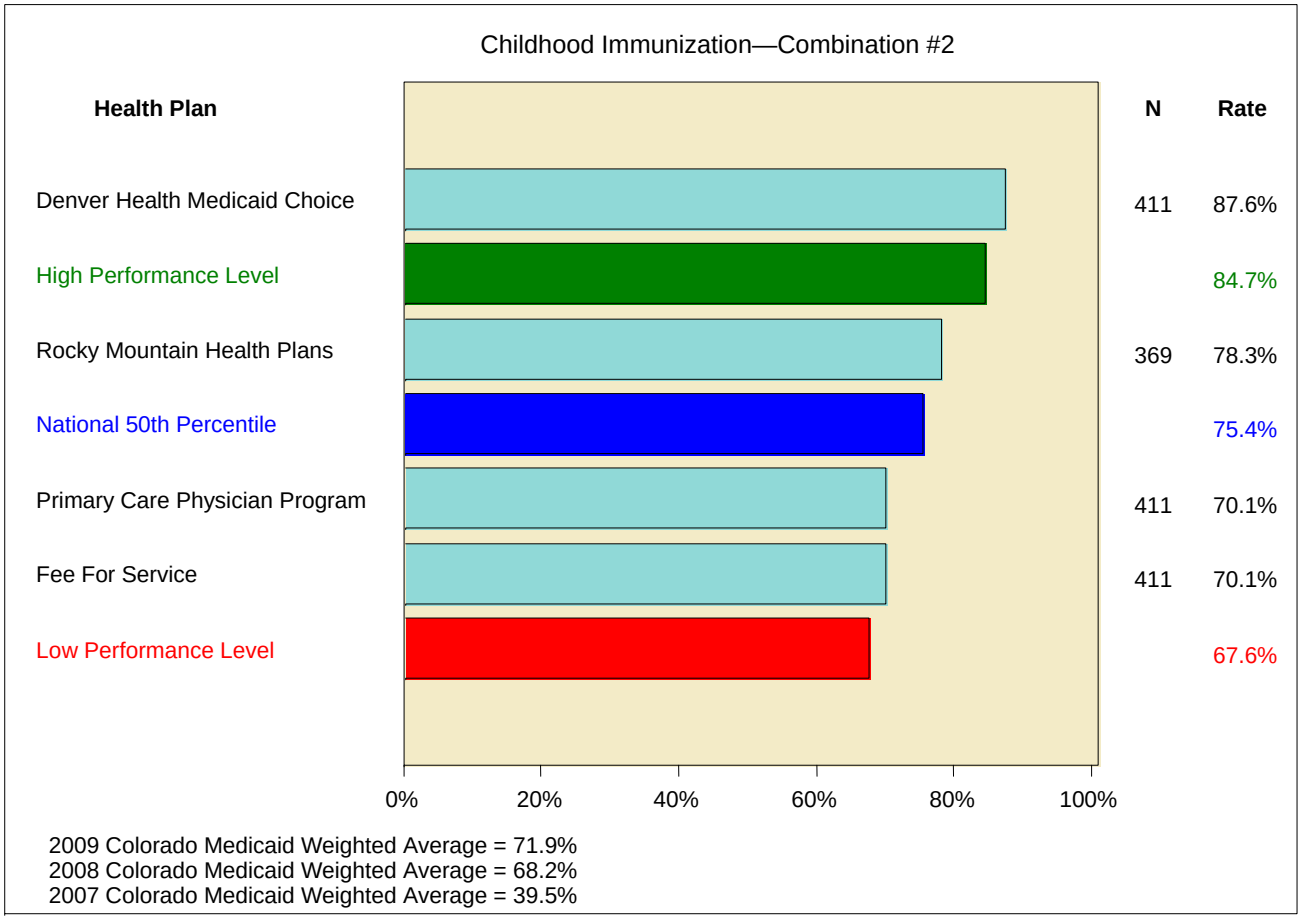
While the Colorado statewide Medicaid weighted average increased by 2.3 percentage points from 70.8 percent in 2008 to 73.1 percent in 2009, this improvement was not statistically significant.

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, two HiB, three hepatitis B, and one VZV, each within the allowable time period and by the member's second birthday.

Health Plan Ranking: Childhood Immunization Status—Combination #2

Figure 3-8—Colorado Medicaid HEDIS 2009 Health Plan Ranking: *Childhood Immunization Status—Combination #2*



Although all of the health plans performed better than the LPL of 67.6 percent, PCPP and FFS performed below the national HEDIS 2008 Medicaid 50th percentile of 75.4 percent. While RMHP and DHMC both performed above the national HEDIS 2008 Medicaid 50th percentile, only DHMC performed above the HPL of 84.7 percent.

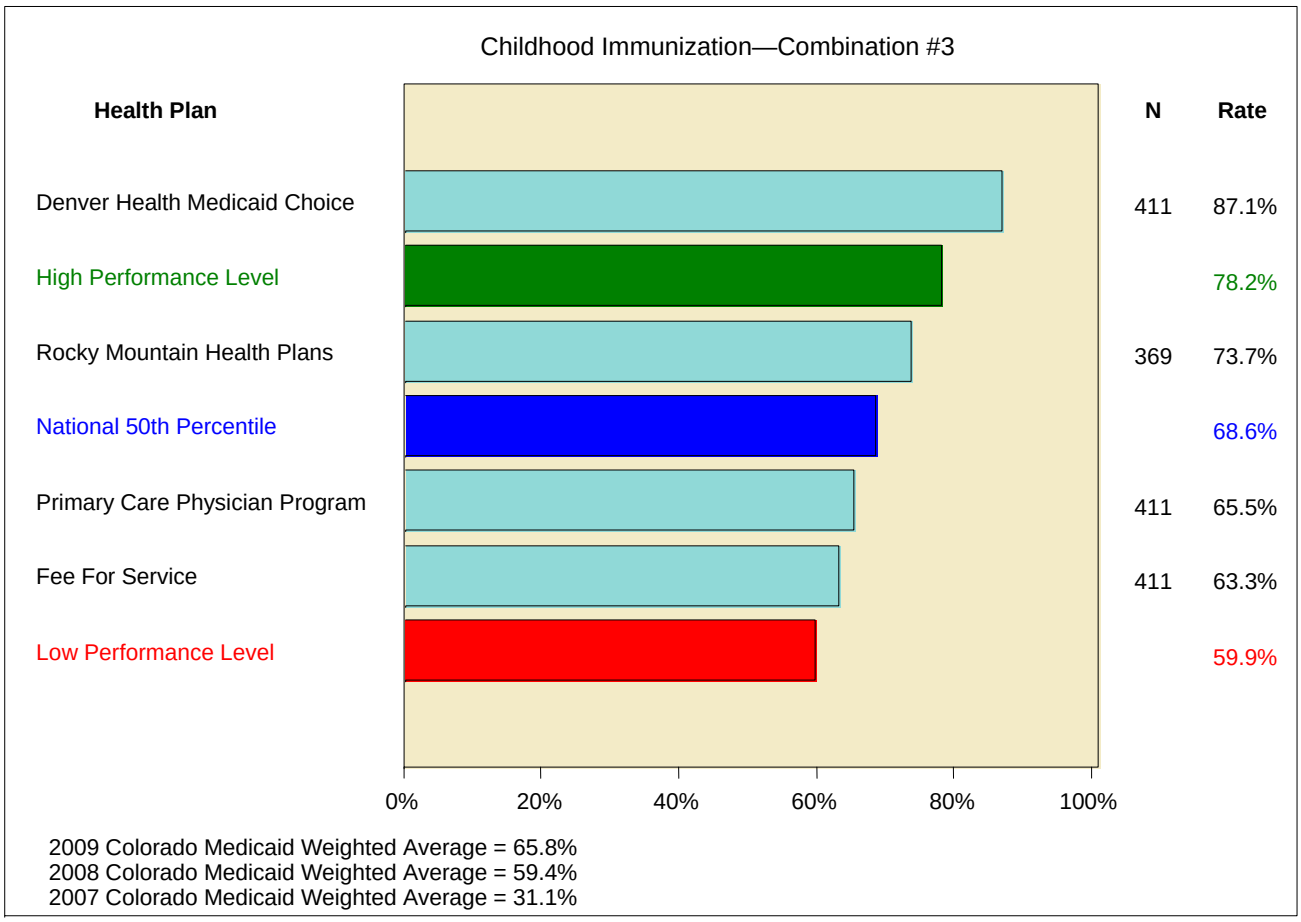
The Colorado statewide Medicaid weighted average increased by 3.7 percentage points from 68.2 percent in 2008 to 71.9 percent in 2009, although this improvement was not statistically significant. The revision to the HiB requirements this year, due to the vaccine shortage, could have had a minor positive impact on this rate.

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, two HiB, three hepatitis B, one VZV, and four pneumococcal conjugate vaccinations, each within the allowable time period and by the member's second birthday.

Health Plan Ranking: Childhood Immunization Status—Combination #3

Figure 3-9—Colorado Medicaid HEDIS 2009 Health Plan Ranking: *Childhood Immunization Status—Combination #3*



Although all of the health plans performed above the LPL of 59.9 percent, PCPP and FFS did not perform above the national HEDIS 2008 Medicaid 50th percentile of 68.6 percent. Of the two health plans that performed above the national HEDIS 2008 Medicaid 50th percentile, only DHMC performed above the HPL of 78.2 percent.

Although the Colorado statewide weighted average increased 6.4 percentage points from 59.4 percent in 2008 to 65.8 percent, the improvement was not statistically significant. The revision to the HiB requirements this year, due to the vaccine shortage, could have had a minor positive impact on this rate.

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. 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 AAP's recommended well-child visit schedule showed a significant reduction in risk for avoidable hospitalizations for that group.[3-13] According to the CDC, 17 percent of U.S. children have a behavioral or developmental disability, but less than half of these children are identified as having a problem before they start school.[3-14]

[3-13] Hakim RB, Bye BV. Effectiveness of Compliance With Pediatric Preventive Care Guidelines Among Medicaid Beneficiaries. *Pediatrics*. 2001, 108 (1): 90–97.

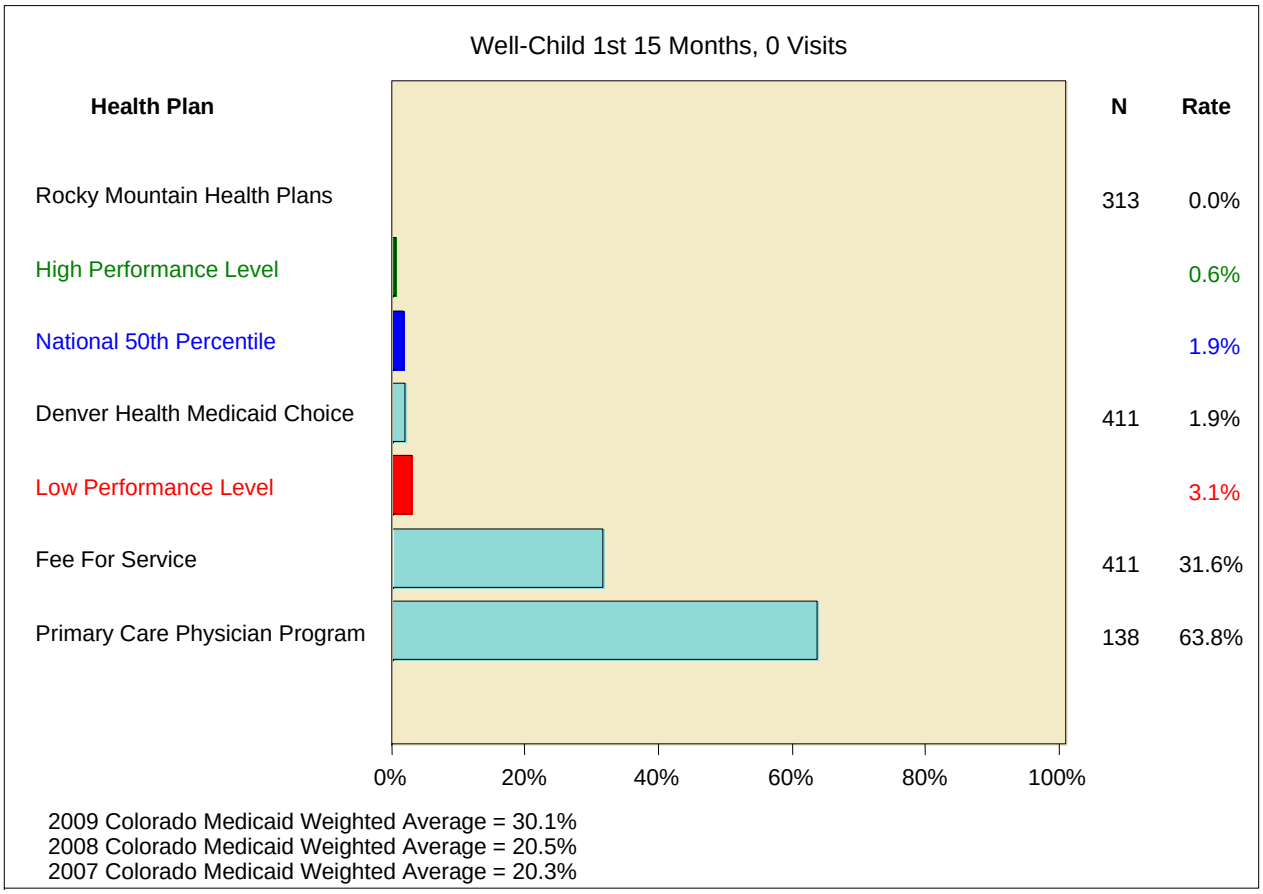
[3-14] Centers for Disease Control and Prevention. Child Development: Developmental Screening. Available at: http://www.cdc.gov/ncbddd/child/devtool.htm. Accessed on August 31, 2009.

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 health plan from 31 days of age, and who did not visit a PCP during their first 15 months of life.

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

Figure 3-10—Colorado Medicaid HEDIS 2009 Health 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 did not receive any well-child visits by 15 months of age. For this measure, a lower rate indicates better performance.

FFS and PCPP both performed worse than the LPL of 3.1 percent, and while DHMC performed better than the LPL and reached the national HEDIS 2008 Medicaid 50th percentile, it did not perform better than the HPL. RMHP was the only health plan to perform better the national HEDIS 2008 Medicaid 50th percentile of 1.9 percent and the HPL of 0.6 percent.

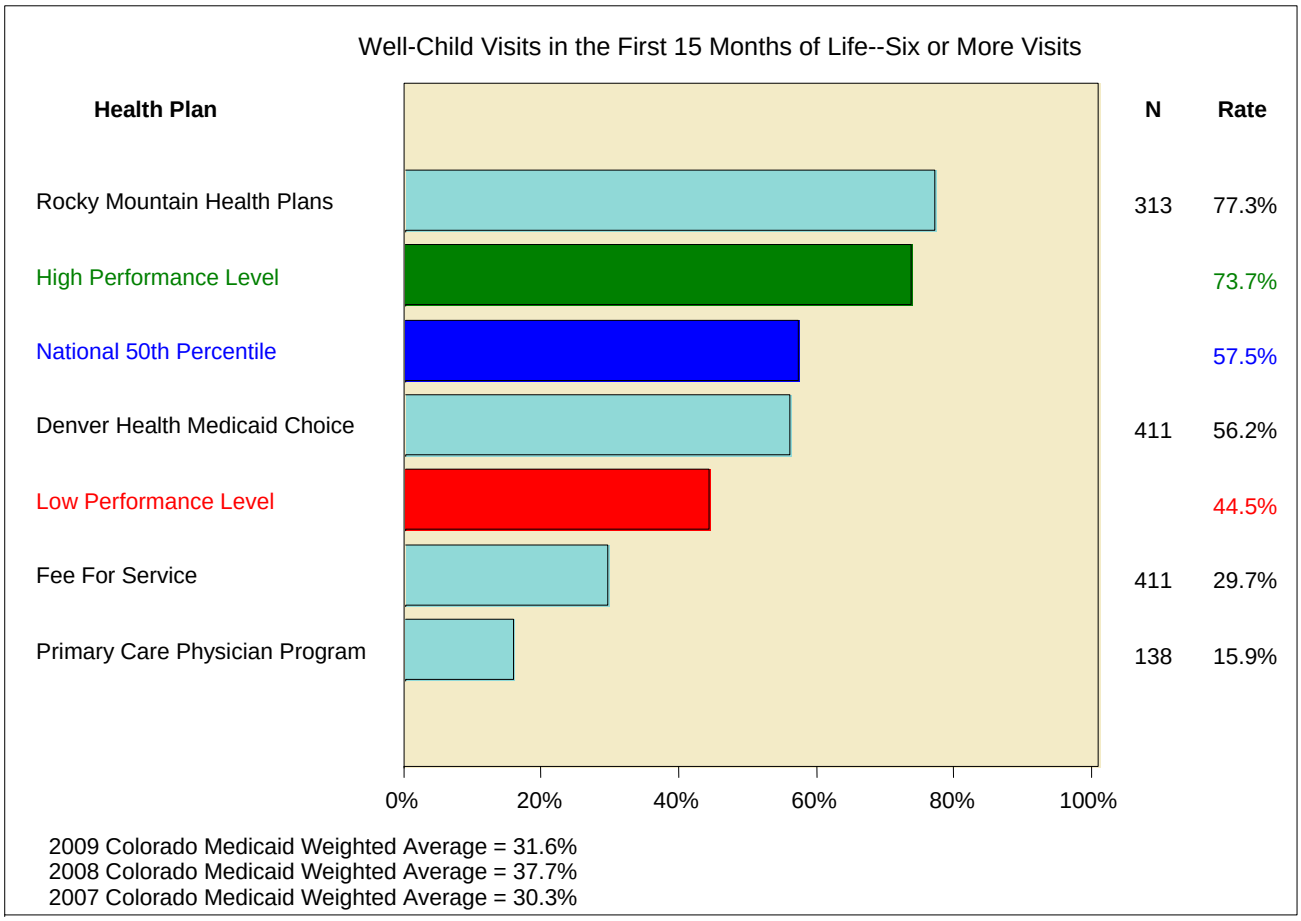
Although the Colorado statewide weighted average showed a decline in performance by 9.6 percentage points from 20.5 percent in 2008 to 30.1 percent in 2009, this decline was not statistically significant.

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 health plan from 31 days of age, and who received six or more visits with a PCP during their first 15 months of life.

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

Figure 3-11—Colorado Medicaid HEDIS 2009 Health Plan Ranking:
Well-Child Visits in the First 15 Months of Life—Six or More Visits



Both FFS and PCPP performed lower than the LPL of 44.5 percent, and while DHMC performed better than the LPL, it did not perform better than the national HEDIS 2008 Medicaid 50th percentile or the HPL. RMHP, however, performed better than the national HEDIS 2008 Medicaid 50th percentile of 57.5 percent and the HPL of 73.7 percent.

Although the Colorado statewide average decreased by 6.1 percentage points from 37.7 percent to 31.6 percent in 2009, the decrease was not statistically significant.

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

AAP recommends annual well-child visits for children between 3 and 6 years of age, provided that they are growing and developing normally and have no important health problems.[3-15] 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 health plan rankings for the Colorado MCOs, FFS, and PCPP for *Well-Child Visits in the Third, Fourth, Fifth, and Sixth Years of Life*.

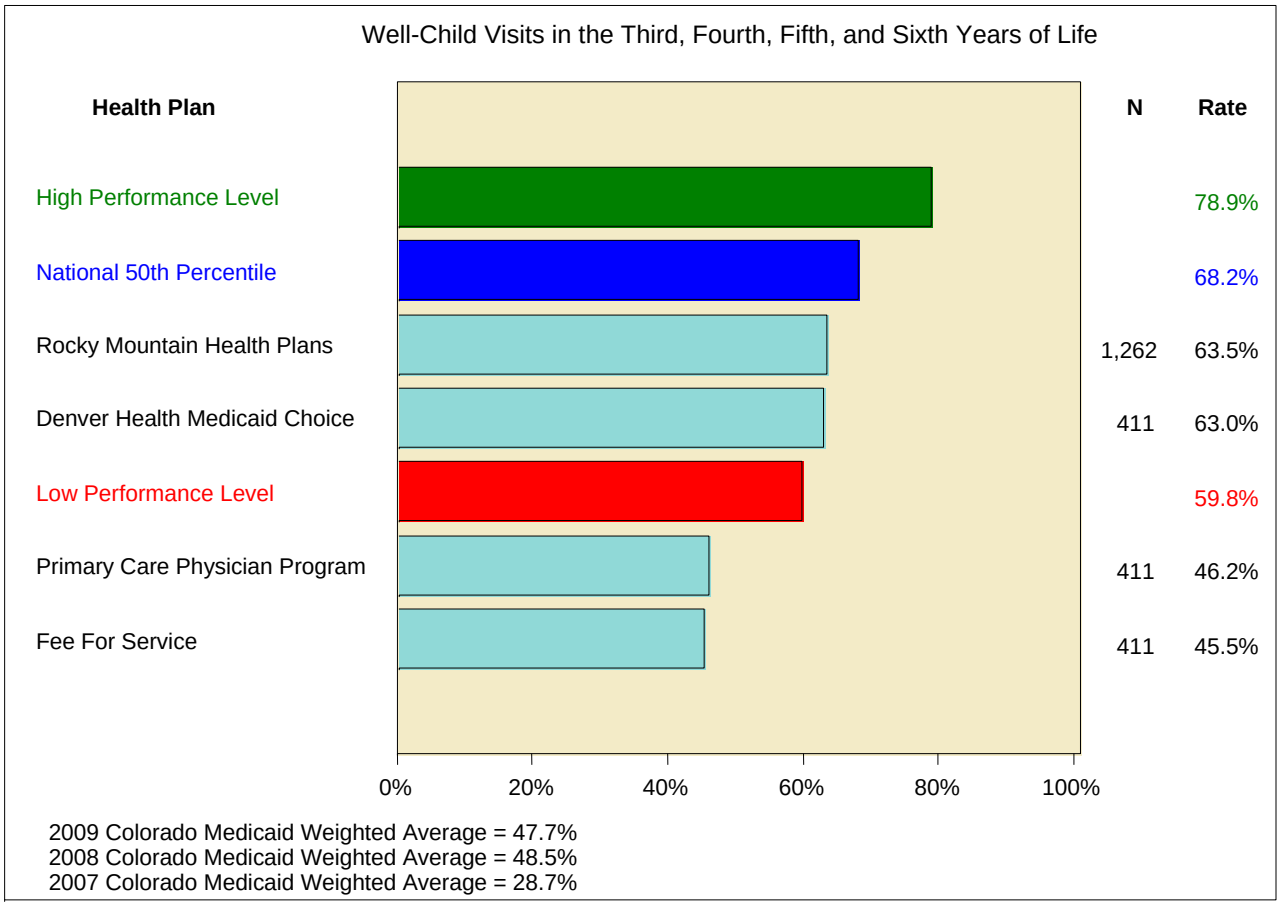
[3-15] American Academy of Pediatrics. Recommendations for Preventive Pediatric Health Care. Available at: http://practice.aap.org/content.aspx?aid=1599. Accessed on August 31, 2009.

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.

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

Figure 3-12—Colorado Medicaid HEDIS 2009 Health Plan Ranking:
Well-Child Visits in the Third, Fourth, Fifth, and Sixth Years of Life



PCPP and FFS performed lower than the LPL of 59.8 percent while RMHP and DHMC performed above the LPL but lower than the national HEDIS 2008 Medicaid 50th percentile of 68.2 percent and the HPL of 78.9 percent.

The 2009 Colorado statewide weighted average decreased 0.8 percentage points from 48.5 percent in 2008 to 47.7 percent in 2009, although this decrease was not statistically significant.

Adolescent Well-Care Visits

Unintentional injury was the leading cause of death among the adolescent age group in 2005, accounting for 48.3 percent of all deaths.[3-16] Homicide and suicide were the next leading causes of death, accounting for 15.2 percent and 11.8 percent, respectively, of all adolescent deaths.[3-17] Sexually transmitted diseases (STDs), substance abuse, pregnancy, and antisocial behavior are important causes of physical, emotional, and social problems in this age group. The AMA's Guidelines for Adolescent Preventive Services (GAPS) recommend that all adolescents 11–21 years of age have an annual preventive services visit that focuses on both the biomedical and psychosocial aspects of health.[3-18] However, adolescents can have difficulty obtaining appropriate health care services on their own due to developmental characteristics and lack of experience in terms of negotiating medical systems, and they often need specialized planning to respond to their needs for confidentiality, quality service, and coordination of care.[3-19]

The following pages analyze the performance profile and health plan rankings for the Colorado MCOs and the State's FFS and PCPP health plans for *Adolescent Well-Care Visits*.

[3-16] U.S. Department of Health and Human Services. Child Health USA 2007. Available at: ftp://ftp.hrsa.gov/mchb/chusa_07/c07.pdf. Accessed on August 31, 2009.

[3-17] Ibid.

[3-18] American Medical Association. Guidelines for Adolescent Preventive Services (GAPS). Available at: http://www.ama-assn.org/ama/upload/mm/39/gapsmono.pdf. Accessed on August 31, 2009.

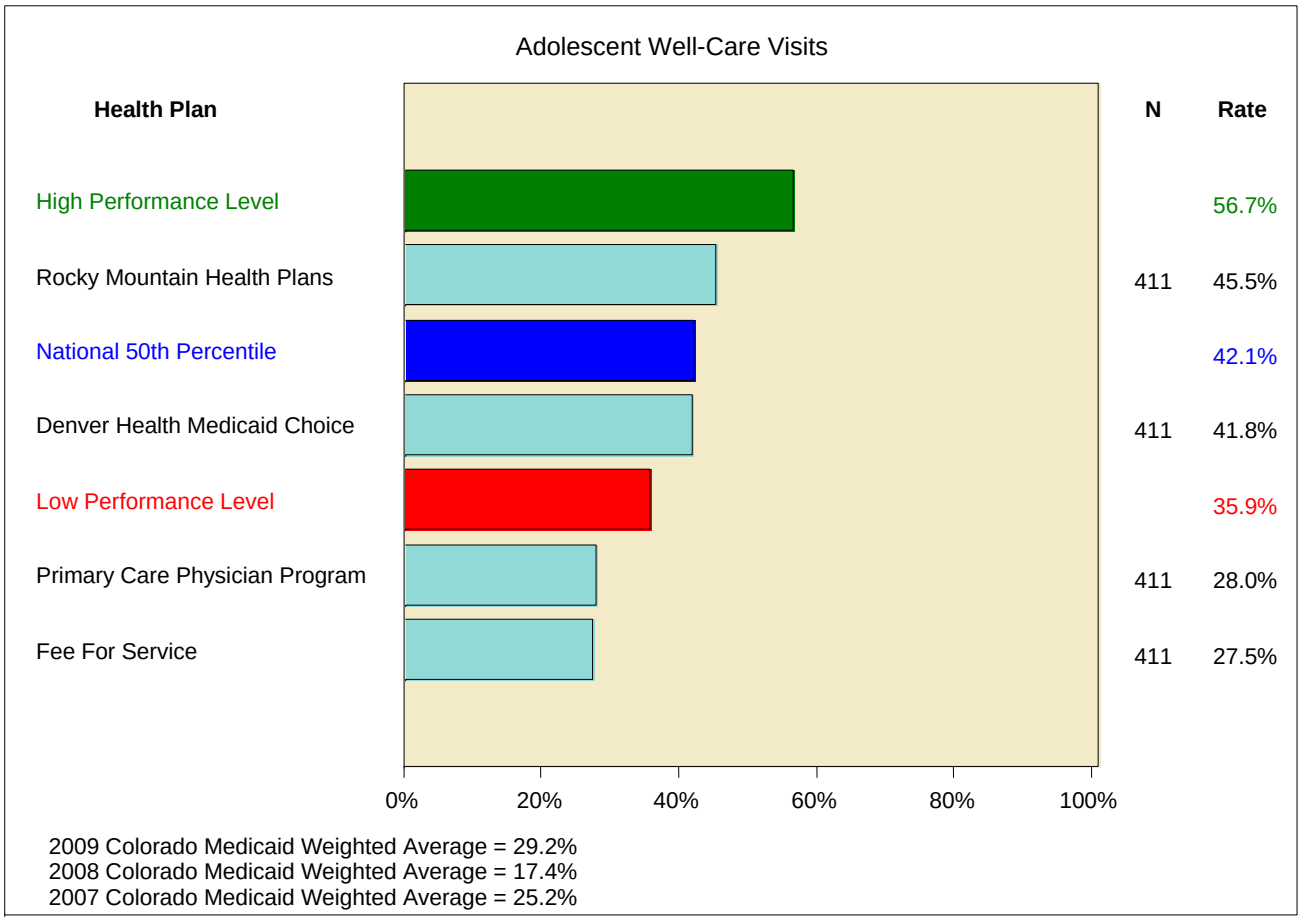
[3-19] National Adolescent Health Information Center. Assuring the Health of Adolescents in Managed Care: A Quality Checklist for Planning and Evaluating Components of Adolescent Health Care. Available at: http://nahic.ucsf.edu//downloads/Assuring_Hlth_Checklist.pdf. Accessed on August 31, 2009.

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.

Health Plan Ranking: Adolescent Well-Care Visits

Figure 3-13—Colorado Medicaid HEDIS 2009 Health Plan Ranking: *Adolescent Well-Care Visits*



Both the PCPP and the FFS populations performed lower than the LPL of 35.9 percent, and while DHMC performed better than the LPL, it did not perform above the national HEDIS 2008 Medicaid 50th percentile of 42.1 percent. Although RMHP performed above the national HEDIS 2008 Medicaid 50th percentile, it did not perform above the HPL of 56.7 percent.

From 2008 to 2009, the Colorado statewide weighted average showed a statistically significant increase from 17.4 percent to 29.2 percent.

Pediatric Care Findings and Recommendations

Immunization Findings

Overall the Colorado Medicaid weighted averages ranged from below the LPL to above the LPL for the *Childhood Immunization Status* submeasures that were directly comparable to the audit means and percentiles (the HiB vaccine measure was not directly comparable). The statewide rates for all of the adolescent and well-child care measures (i.e., *Well-Child Visits in the First 15 Months of Life; Well-Child Visits in the Third, Fourth, Fifth and Sixth Years of Life; and Adolescent Well-Care Visits*) performed below the LPL. This dimension remains an area where health plans could focus on quality improvements.

The *Childhood Immunization Status—Combination #3* rate showed continued improvement compared to last year's rate. Last year the rate improvement was statistically significant, and yet there was still an increase of 6.4 percentage points this year. However, this year's rate of 65.8 percent still ranks below the national 50th percentile (50th percentile = 68.6 percent). This remains an area with an opportunity for improvement as health plans nationwide continue to see their rates increase. Of note is the national improvement in results for this measure as shown by the increase of 6.1 percentage points in the national 50th percentile from 62.5 percent last year, to 68.6 percent this year.

Recommendations

To help improve immunization rates, health plans nationwide have implemented numerous interventions. In the Szilayi article, a review of 41 studies evaluated the effect of using patient reminder/recall interventions.[3-20] Overall, immunization rates were two times higher for study groups in which reminders were used compared to immunization rates in the comparison groups. Telephone reminders were the most effective increasing immunization rates fivefold. Tracking and outreach and the combination of patient and provider prompts were also effective, with immunization rates that were more than three times higher than those of the comparison groups.

Another review of the literature by Shefer documented that multi-component interventions that included education were the most effective in increasing vaccination rates.[3-21] Of the 34 studies reviewed, 15 studies included a mix of patient and/or provider education with another intervention resulting in a median increase in immunization rates of 16 percentage points. The 24 studies that used reminder interventions alone resulted in a median difference in rates of 8 percentage points. Including patient reminders as part of a multi-component intervention resulted in a median increase of 16 percentage points in immunization rates. These interventions were found to be effective across different ethnic and age groups. Provider reminders and provider feedback were both associated with median increases of 16 percentage points. Interestingly, provider interventions were also effective if used alone.

[3-20] Szilagyi, PG, Bordley, C, Vann, JC, et al. Effect of Patient Reminder/Recall Interventions on Immunization Rates: A Review. JAMA. 2000. 284(14):1820-1827.

[3-21] Shefer, A, Briss, P, Rodewald, L, et al. Improving Immunization Coverage Rates: An Evidence-based Review of the Literature. Epidemiological Reviews. 1999. 21(1):96-142.

Hambridge found that stepped interventions improved both well-child visits and immunization rates.[3-22] The steps included first mailing reminders to members, followed by phone calls to nonresponders with several attempts to contact them, followed by case management and/or visits to those that were still noncompliant.

Childhood Immunization Status is a HEDIS measure that is often the study topic for performance improvement projects (PIPs) and quality improvement projects (QIPS). The interventions documented by HSAG, excluding the interventions mentioned previously, include:

- Using immunization registries.
- Providing incentives to providers who report to an immunization registry.
- Providing electronic prompts to providers for needed immunizations.

Similar to the article findings, multi-component interventions are most often associated with sustained increases in immunization rates.

Children's Access to Care Findings

There were dramatic increases noted in the performance for the *Well-Child Visits in the First Fifteen Months of Life—Zero Visits* and *Six or More Visits* rates for RMHP. The *Six or More Visits* rate improved by 46.7 percentage points when compared to last year. One reason for this is that last year, RMHP reported the measure using the administrative-only methodology. This year, RMHP used the hybrid methodology, incorporating medical record information. There was a decrease in DHMC's *Six or More Visits* rate of 6.9 percentage points. The DHMC rate for *Zero Visits* stayed the same compared to last year. The rates for the FFS population decreased, as shown by the substantial increase in the *Zero Visits* rate and the decrease of 7.8 percentage points for the *Six or More Visits* rate. The PCPP population experienced substantial decreases in performance with a drop of 40.6 percentage points for the *Six or More Visits* rate and a decline in performance of 45.3 percentage points for the *Zero Visits* rate.

For the *Well-Child Visits in the Third, Fourth, Fifth, and Sixth Years of Life* measure, the Colorado weighted average remained stable and there were no substantial changes in the rates from year to year for any of the health plans. Rates improved for DHMC, RMHP, and PCPP. The FFS population experienced a minor decrease of 2.2 percentage points. Last year, all four health plans ranked below the LPL. This year, however, RMHP and DHMC rank above the LPL.

The trend among all of the health plans for the *Adolescent Well-Care Visits* measure was better performance, resulting in a significant increase in the Colorado Medicaid weighted average. Although neither experienced substantial increases this year, RMHP's rate increased by 4.7 percentage points and went from scoring below the 50th percentile last year to ranking above it this year. DHMC's rate increased by almost 10 percentage points and moved from scoring below the LPL last year to above the LPL this year. Although the FFS and PCPP populations had increases in their rates this year, 11.9 and 12.8 percent, respectively, the rates for both still rank below the LPL.

[3-22] Hambridge, SJ, Phibbs, SL, et al. A Stepped Intervention Increases Well_Child Care and Immunization Rates in a Disadvantaged Population. Pediatrics. 2009. 124(2):455

Recommendations

HSAG has documented several successful interventions implemented to increase well-child visits and member visits. Successful is defined as achieving sustained improvement over several years. The most effective interventions are those that target specific barriers. Assuming that culturally appropriate materials are available, member interventions such as reminders and newsletters have been associated with real improvement. Newsletters should contain updated and timely information. The newsletter content with the highest frequency included articles, profiles of providers, and member tools. Newsletters were usually distributed quarterly, but some health plans had monthly newsletters. Reminders were usually sent in conjunction with birthdays or other milestones.

Another commonality among these interventions was that they were conducted in conjunction with provider interventions. Provider interventions included provider-specific feedback on their well-child visits rates and encounter/claims data review for missed opportunities such as performing well-child assessments during sick visits. Implementing electronic tracking tools and provider prompts were associated with greater provider satisfaction rates as well as increased well-child visit rates.

One of the most effective methods for improving the overall statewide rates has been the implementation of PIPs or QIPs, which use a State-mandated topic or a collaborative PIP conducted by all contracted health plans to improve these visit rates.[3-23]

[3-23] Health Services Advisory Group. Validation of Performance and Quality Improvement Projects. Studies validated between 2004 and 2009.

Introduction

Access to appropriate and effective health care is an essential component of the effort to diagnose and treat health problems, and to increase the quality and duration of a healthy life. Establishing a relationship with a primary care practitioner is necessary to improve access to care for both adults and children. To increase access to quality care, the public health system, health plans, and health care researchers focus on identifying barriers to existing health services and eliminating disparities. Through this process, health 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] The CDC reports that during 2006, approximately 902 million visits were made to office-based physicians in the United States.[4-2] The visit rate for Whites was higher than for African-American and Hispanic individuals (323.9 visits per 100 persons per year for Whites versus 235.4 for African Americans and 271.0 for Hispanics).[4-3] Statistics regarding access to care often vary considerably by race. These statistics are not reported specifically for the Medicaid population, but for the general population.

The type of insurance coverage (or lack of insurance) may have a significant impact on the ability to obtain timely access to care. In a study conducted in 430 ambulatory clinics in nine U.S. cities, individuals with Medicaid coverage were less likely to receive an appointment than those with private coverage (34.2 percent for Medicaid compared with 63.3 percent for private insurance).[4-4]

[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 August 31, 2009.

[4-2] Centers for Disease Control and Prevention. National Ambulatory Medical Care Survey: 2006 Summary. Available at: http://www.cdc.gov/nchs/data/nhsr/nhsr003.pdf. Accessed on August 31, 2009.

[4-3] Ibid.

[4-4] 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:
Available at: http://jama.ama-assn.org/cgi/content/abstract/294/10/1248?maxtoshow=&HITS=10&hits. Accessed on August 31, 2009.

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

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*

- ***Children's & Adolescents' Access to Primary Care Practitioners***
  - *Children's & Adolescents' Access to Primary Care Practitioners—Ages 12 to 24 Months*
  - *Children's & Adolescents' Access to Primary Care Practitioners—Ages 25 Month to 6 Years*
  - *Children's & Adolescents' Access to Primary Care Practitioners—Ages 7 to 11 Years*
  - *Children's & Adolescents' Access to Primary Care Practitioners—Ages 12 to 19 Years*

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

- ***Annual Dental Visit***
  - *Annual Dental Visit—Ages 2 to 3 Years*
  - *Annual Dental Visit—Ages 4 to 6 Years*
  - *Annual Dental Visit—Ages 7 to 10 Years*
  - *Annual Dental Visit—Ages 11 to 14 Years*
  - *Annual Dental Visit—Ages 15 to 18 Years*
  - *Annual Dental Visit—Ages 19 to 21 Years*
  - *Annual Dental Visit—Total*

Prenatal and Postpartum Care

More than 4 million infants are born in the United States each year. Approximately 520,000 of these infants are born preterm, and another 338,000 are of low birth weight.[4-5] Low birth weight increases the risk for neural 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. Mothers who do not receive prenatal care are up to four times more likely to experience fatal complications related to pregnancy than those who receive prenatal care.[4-6]

In 2006, women who received early prenatal care (beginning in the first trimester) accounted for 79.7 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.[4-7]

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.[4-8] Additionally, women who receive timely, adequate prenatal care may be more likely to maintain a healthy weight and avoid extended hospitalization after giving birth.[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*

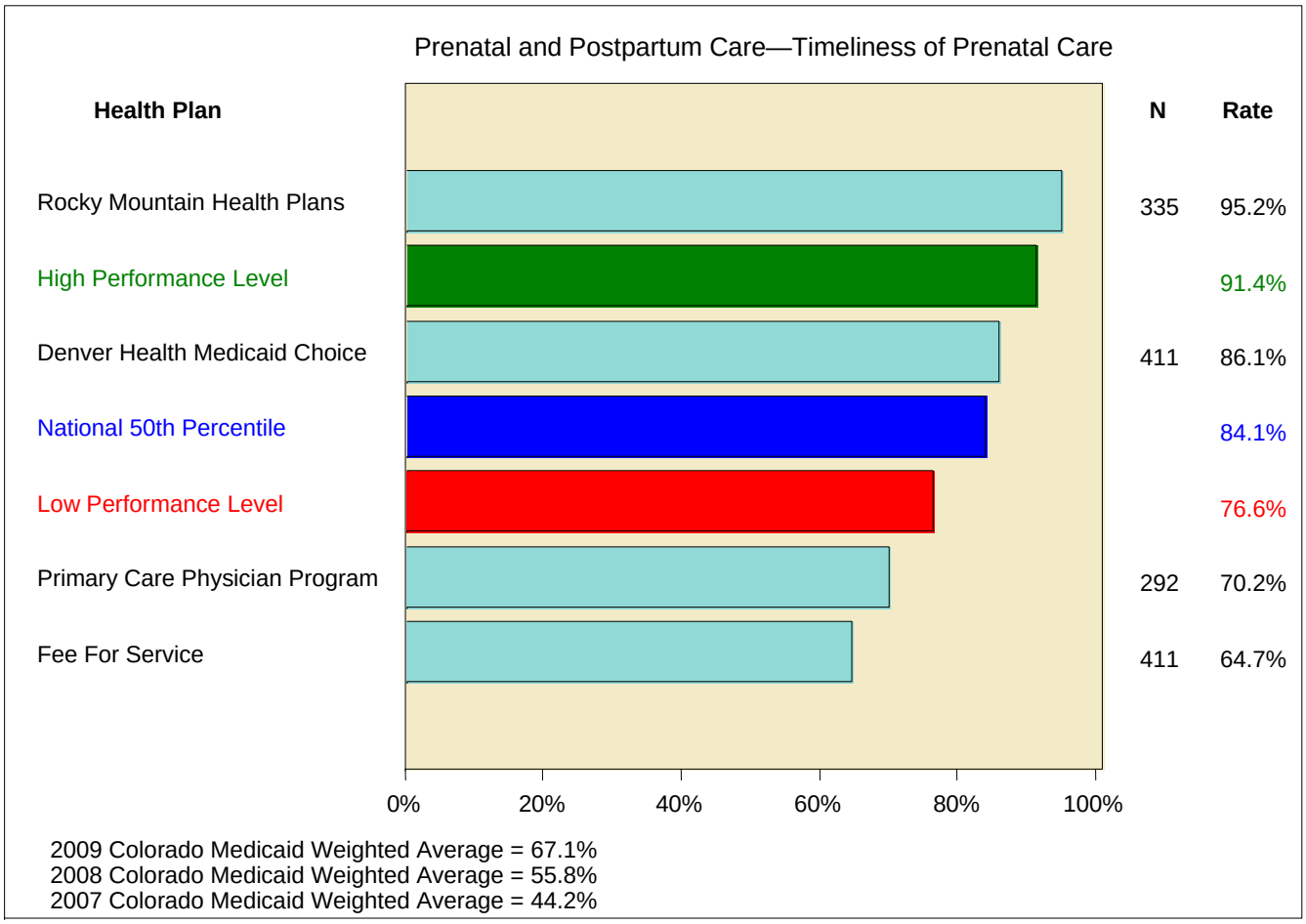
[4-5] National Committee for Quality Assurance. The State of Health Care Quality 2008. Available at: http://www.ncqa.org/Portals/0/Newsroom/SOHC/SOHC_08.pdf. Accessed on September 1, 2009.
[4-6] Ibid.
[4-7] March of Dimes. Colorado Prenatal Care Overview. Available at: http://www.marchofdimes.com/peristats/tlanding.aspx?dv=lt&reg=08&top=5&lev=0&slev=4. Accessed on September 1, 2009.
[4-8] Family Health International. Better Postpartum Care Saves Lives. Available at: http://www.fhi.org/en/RH/Pubs/Network/v17_4/postpartum.htm. Accessed on September 1, 2009.
[4-9] National Committee for Quality Assurance. The State of Health Care Quality 2008. Available at: http://www.ncqa.org/Portals/0/Newsroom/SOHC/SOHC_08.pdf. Accessed on September 1, 2009.

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 health plan in the first trimester or within 42 days of enrollment in the health plan.

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

Figure 4-1—Colorado Medicaid HEDIS 2009 Health Plan Ranking:
Prenatal and Postpartum Care—Timeliness of Prenatal Care



While PCPP and FFS performed below the LPL of 76.6 percent, RMHP and DHMC performed above the national HEDIS 2008 Medicaid 50th percentile of 84.1 percent. RMHP was the only health plan to perform above the HPL of 91.4 percent.

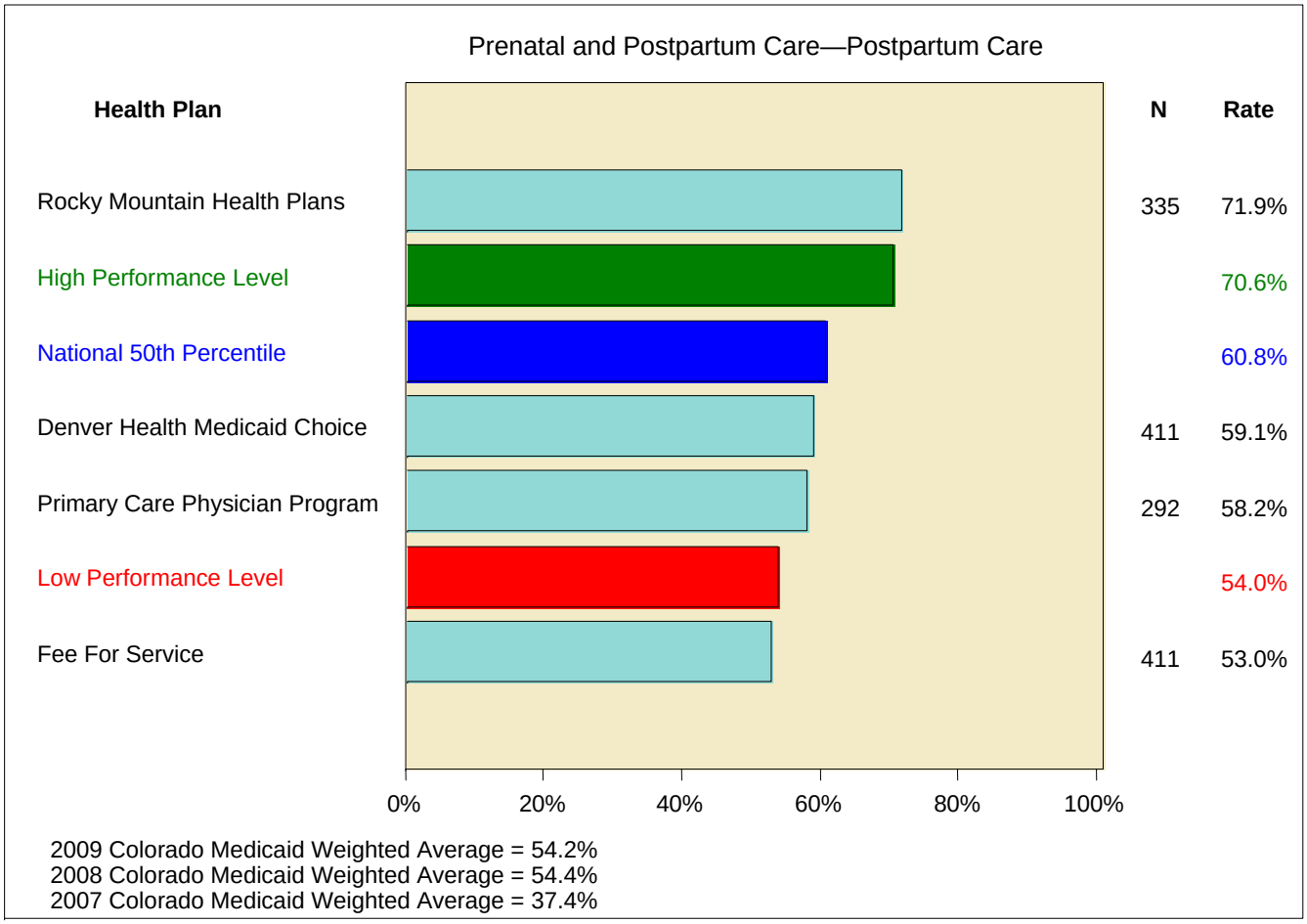
Although the Colorado statewide weighted average increased by 11.3 percentage points from 55.8 percent in 2008 to 67.1 percent in 2009, the improvement was not statistically significant and it continued to rank below the LPL of 76.6 percent.

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.

Health Plan Ranking: Prenatal and Postpartum Care—Postpartum Care

Figure 4-2—Colorado Medicaid HEDIS 2009 Health Plan Ranking: *Prenatal and Postpartum Care—Postpartum Care*



FFS was the only program to perform below the LPL of 54.0 percent. DHMC and PCPP both performed above the LPL, but they did not reach the national HEDIS 2008 Medicaid 50th percentile of 60.8 percent. RMHP was the only health plan to perform above the HPL of 70.6 percent.

Although the Colorado statewide weighted average decreased 0.2 percentage points from 54.4 percent in 2008 to 54.2 percent in 2009, the decrease was not statistically significant and ranked just above the LPL.

Children's & Adolescents' Access to Primary Care Practitioners

Colorado ranks 28th in the United States for children with a reported regular source of primary health care.[6-10] The proportion of children who have a personal doctor declined from 87 percent to 52 percent between 2004 and 2006; however, in 2007, the number of children with a medical home, where they can receive comprehensive, family-centered and coordinated health care, increased by 10 percent from the previous year.[6-11]

The *Children's & Adolescents' Access to Primary Care Practitioners* measure looks at visits to pediatricians, family physicians, and other PCPs as a way to assess general access to care for children. The report presents rates for four age groups: 12 to 24 months of age, 25 months to 6 years of age, 7 to 11 years of age, and 12 to 19 years of age.

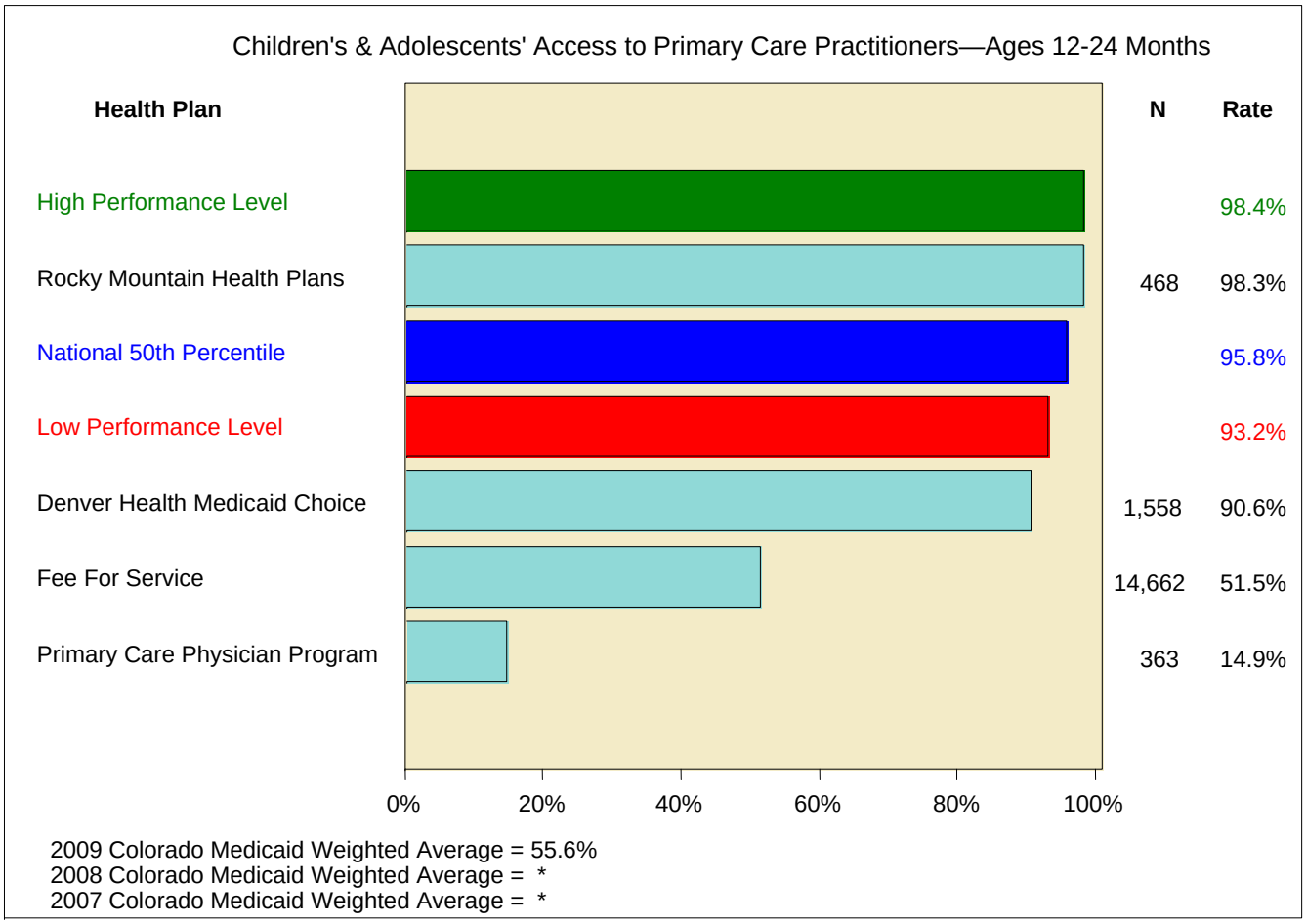
[6-10] The 2008 Colorado Health Report Card. The Colorado Health Foundation. Available at: http://www.coloradohealthreportcard.org/ReportCard/2008/subdefault.aspx?id=2774. Accessed on August 31, 2009.
[6-11] Ibid.

HEDIS Specification: Children's & Adolescents' Access to Primary Care Practitioners—Ages 12 to 24 Months

The *Children's & Adolescents' Access to Primary Care Practitioners—Ages 12 to 24 Months* measure calculates the percentage of children 12 to 24 months of age who were continuously enrolled during the measurement year and who had one or more visits with a PCP during the measurement year.

Health Plan Ranking: Children's & Adolescents' Access to Primary Care Practitioners—Ages 12 to 24 Months

Figure 4-3—Colorado Medicaid HEDIS 2009 Health Plan Ranking:
Children's & Adolescents' Access to Primary Care Practitioners—Ages 12 to 24 Months



Three of the four health plans—DHMC, FFS, and PCPP—performed below the LPL of 93.2 percent. RMHP was the only health plan to perform above the national HEDIS 2008 Medicaid 50th percentile of 95.8 percent, but RMHP's rate was not higher than the HPL of 98.4 percent.

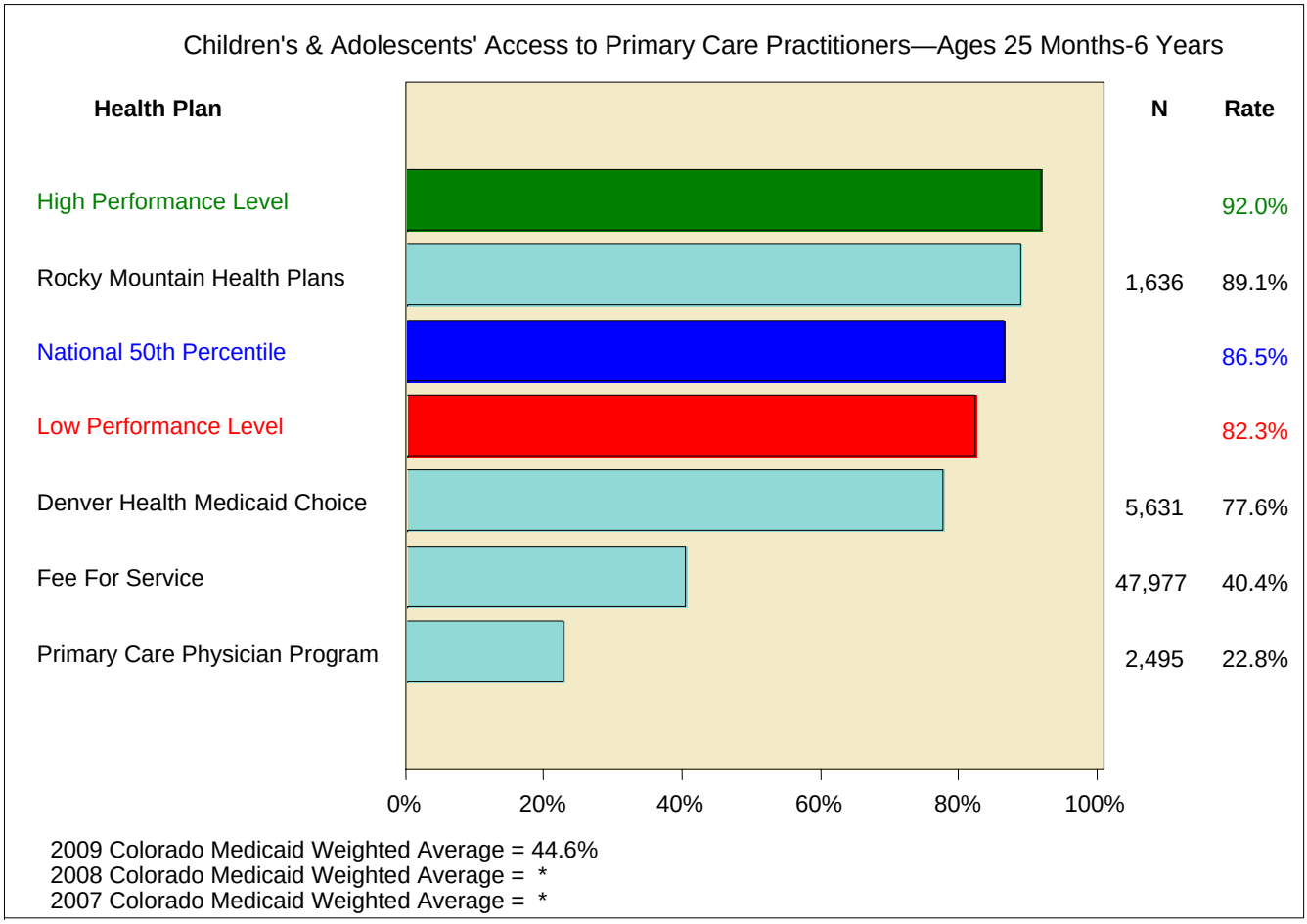
Since this was a new measure for the State this year, there was no previous data with which to make a year-to-year comparison. The Colorado statewide weighted average for 2009 was 55.6 percent, which was far below the LPL of 93.2 percent.

HEDIS Specification: Children's & Adolescents' Access to Primary Care Practitioners—Ages 25 Months to 6 Years

The *Children's & Adolescents' Access to Primary Care Practitioners—Ages 25 Months to 6 Years* measure calculates the percentage of children 25 months to 6 years of age who were continuously enrolled during the measurement year and who had one or more visits with a PCP during the measurement year.

Health Plan Ranking: Children's & Adolescents' Access to Primary Care Practitioners—Ages 25 Months to 6 Years

Figure 4-4—Colorado Medicaid HEDIS 2009 Health Plan Ranking:
Children's & Adolescents' Access to Primary Care Practitioners—Ages 25 Months to 6 Years



Three of the four health plans—DHMC, FFS, and PCPP—performed lower than the LPL of 82.3 percent. RMHP was the only health plan to perform higher than the LPL and the national HEDIS 2008 Medicaid 50th percentile of 86.5 percent, but RMHP's rate was not higher than the HPL of 92.0 percent.

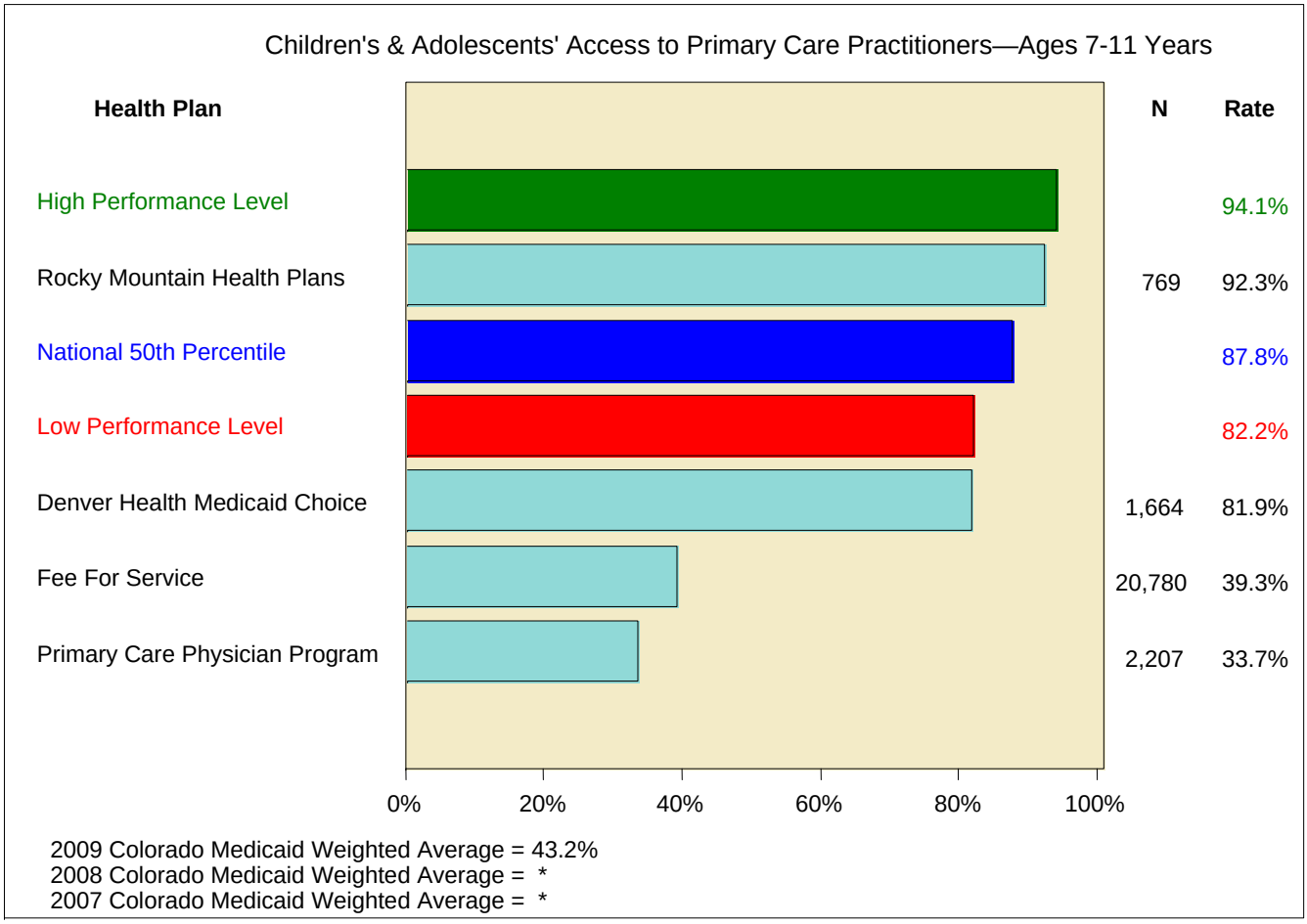
Since this was a new measure for the State this year, there was no previous data with which to make a year-to-year comparison. The Colorado statewide weighted average for 2009 was 44.6 percent, which was far below the LPL of 82.3 percent.

HEDIS Specification: Children's & Adolescents' Access to Primary Care Practitioners—Ages 7 to 11 Years

The *Children's & Adolescents' Access to Primary Care Practitioners—Ages 7 to 11 Years* measure calculates the percentage of adolescents 7 to 11 years of age who were continuously enrolled during the measurement year and the year prior to the measurement year and who had one or more visits with a PCP during the measurement year or the year prior to the measurement year.

Health Plan Ranking: Children's & Adolescents' Access to Primary Care Practitioners—7 to 11 Years

Figure 4-5—Colorado Medicaid HEDIS 2009 Health Plan Ranking:
Children's & Adolescents' Access to Primary Care Practitioners—Ages 7 to 11 Years



Three of the four health plans—DHMC, FFS, and PCPP—performed lower than the LPL of 82.2 percent. RMHP was the only health plan to perform higher than the LPL and the national HEDIS 2008 Medicaid 50th percentile of 87.8 percent, but RMHP's rate was not higher than the HPL of 94.1 percent.

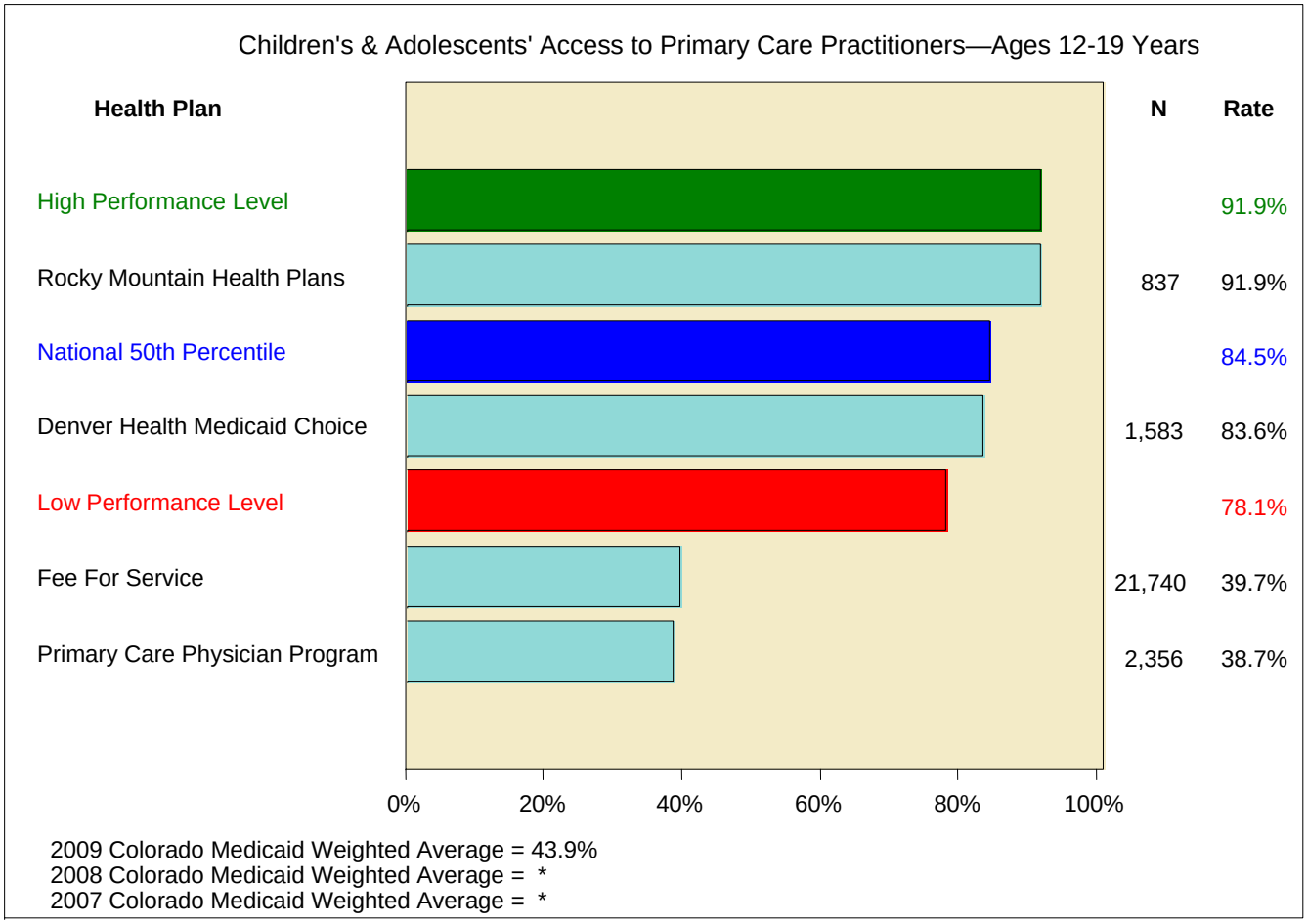
Since this was a new measure for the State this year, there was no previous data with which to make a year-to-year comparison. The Colorado statewide weighted average for 2009 was 43.2 percent, which was below the LPL of 82.2 percent.

HEDIS Specification: Children's & Adolescents' Access to Primary Care Practitioners—Ages 12 to 19 Years

The *Children's & Adolescents' Access to Primary Care Practitioners—Ages 12 to 19 Years* measure calculates the percentage of adolescents 12 to 19 years of age who were continuously enrolled during the measurement year and the year prior to the measurement year and who had one or more visits with a PCP during the measurement year or the year prior to the measurement year.

Health Plan Ranking: Children's & Adolescents' Access to Primary Care Practitioners—Ages 12 to 19 Years

Figure 4-6—Colorado Medicaid HEDIS 2009 Health Plan Ranking:
Children's & Adolescents' Access to Primary Care Practitioners—Ages 12 to 19 Years



FFS and PCPP performed lower than the LPL of 78.1 percent, and while DHMC performed higher than the LPL, it did not perform higher than the national HEDIS 2008 Medicaid 50th percentile of 84.5 percent. RMHP was the only health plan to perform higher than the national HEDIS 2008 Medicaid 50th percentile and reach the HPL of 91.9 percent.

Since this was a new measure for the State this year, there was no previous data with which to make a year-to-year comparison. The Colorado statewide weighted average for 2009 was 43.9 percent, which was below the LPL of 78.1 percent.

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, 10.7 percent of U.S. adults from 45 to 64 years of age did not have a usual source of health care.[4-12] Cost of care can also be an issue. In 2006, 10.2 percent of U.S. adults from 18 to 64 years of age reported reduced access to medical care during the past 12 months due to cost.[4-13] Lack of health insurance is also a barrier to access. Those who do not have insurance are less likely to receive needed health services than those with insurance.[4-14]

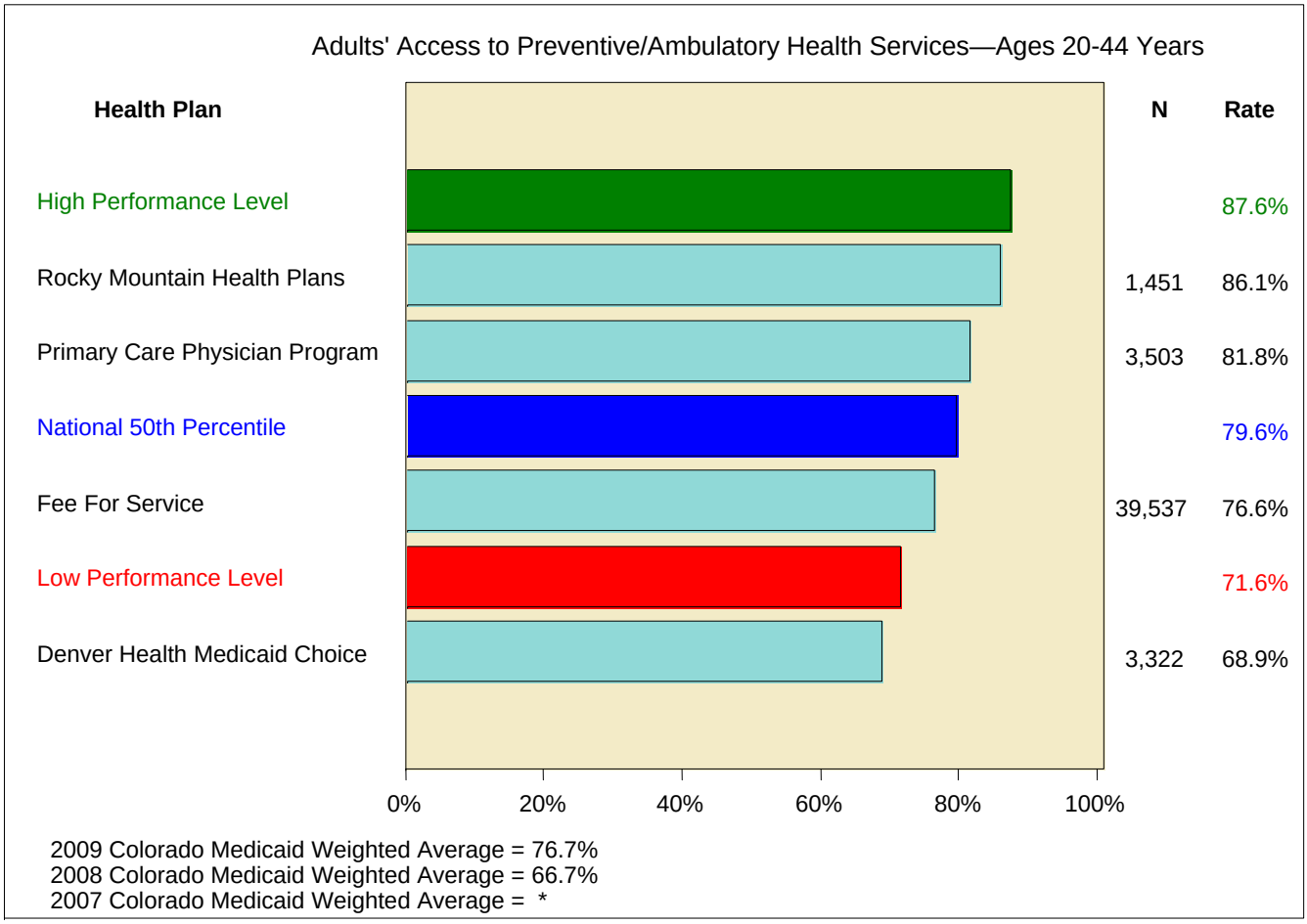
[4-12] National Center for Health Statistics. Health, United States, 2008. Available at: http://www.cdc.gov/nchs/data/hus/hus08.pdf. Accessed on September 1, 2009.
[4-13] Ibid.
[4-14] Ibid.

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.

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

Figure 4-7—Colorado Medicaid HEDIS 2009 Health Plan Ranking:
Adults' Access to Preventive/Ambulatory Health Services—Ages 20 to 44 Years



DHMC was the only health plan to perform lower than the LPL of 71.6 percent. While FFS performed higher than the LPL, it did not reach the national HEDIS 2008 Medicaid 50th percentile of 79.6 percent. RMHP and PCPP both performed higher than the national HEDIS 2008 Medicaid 50th percentile, but did not reach the HPL of 87.6 percent.

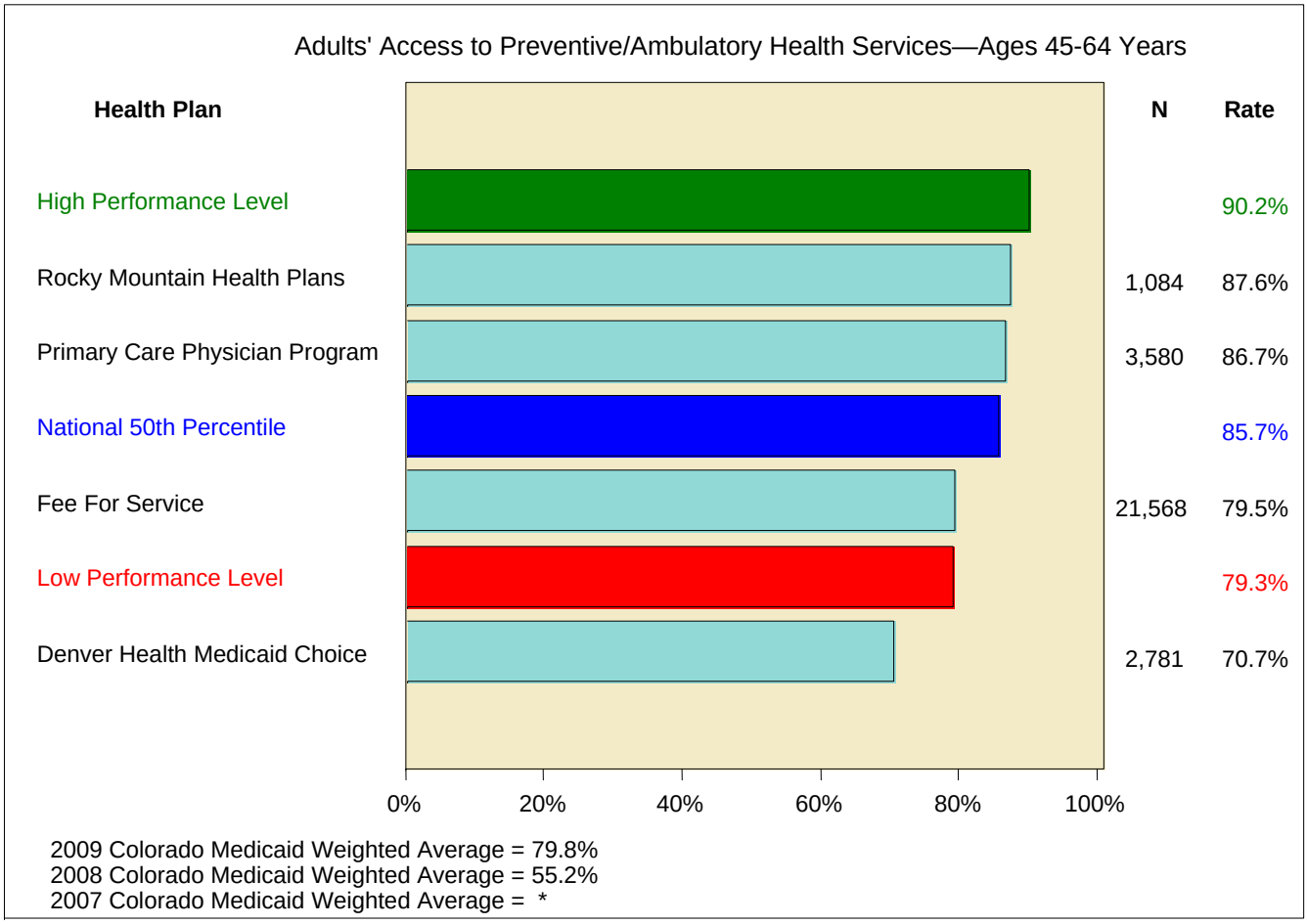
There was a statistically significant improvement in the Colorado statewide weighted average from 2008 to 2009, as the average increased by 10 percentage points, from 66.7 percent in 2008 to 76.7 percent in 2009.

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.

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

Figure 4-8—Colorado Medicaid HEDIS 2009 Health Plan Ranking:
Adults' Access to Preventive/Ambulatory Health Services—Ages 45 to 64 Years



DHMC was the only health plan to perform lower than the LPL of 79.3 percent. While FFS performed higher than the LPL, it did not reach the national HEDIS 2008 Medicaid 50th percentile of 85.7 percent. RMHP and PCPP both performed higher than the national HEDIS 2008 Medicaid 50th percentile, but they did not reach the HPL of 90.2 percent.

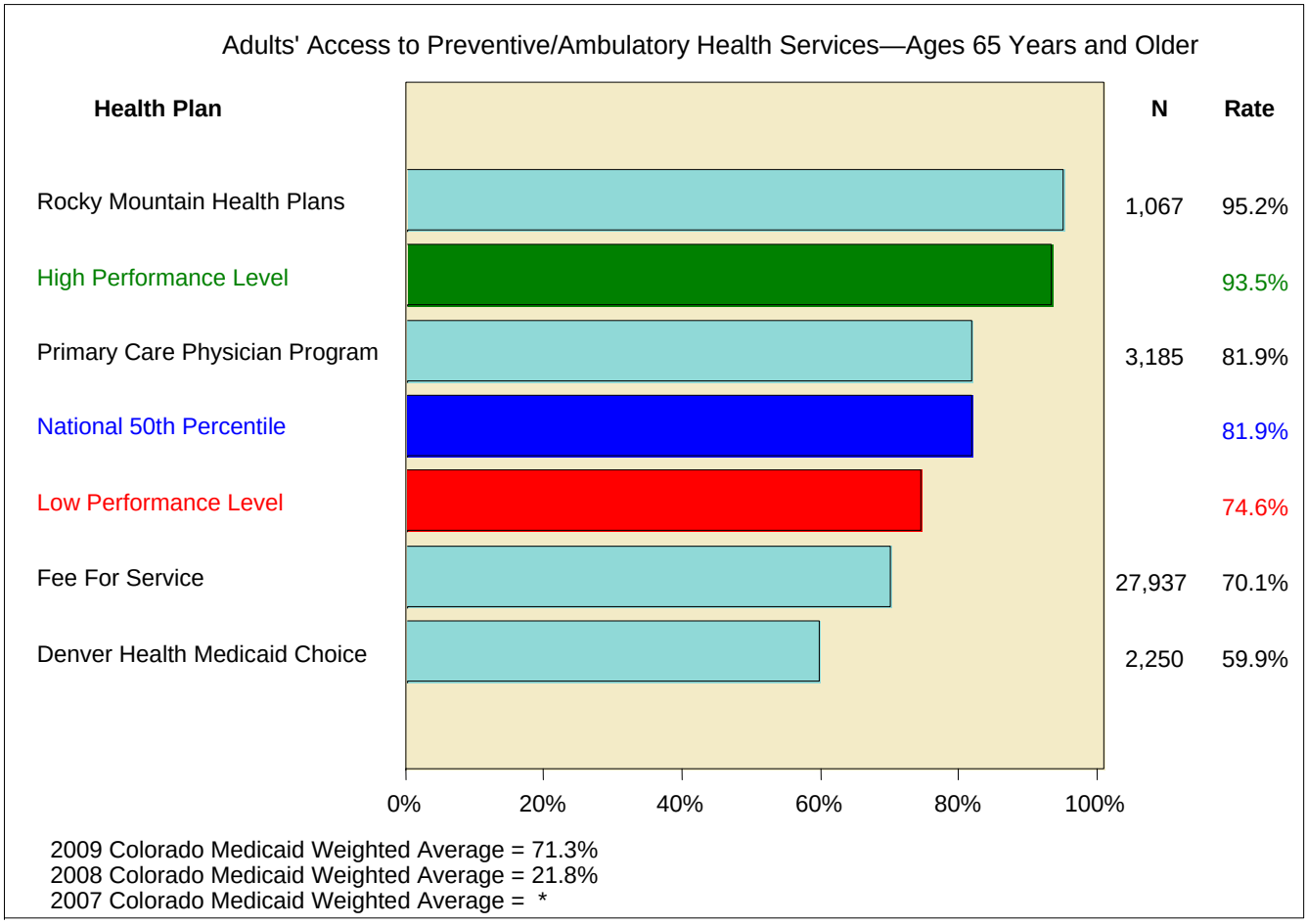
The Colorado statewide weighted average increased from 55.2 percent in 2008 to 79.8 percent in 2009, which was a statistically significant increase. The 2009 statewide average ranked above the LPL of 79.3 percent.

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.

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

Figure 4-9—Colorado Medicaid HEDIS 2009 Health Plan Ranking:
Adults' Access to Preventive/Ambulatory Health Services—Ages 65 Years and Older



DHMC and FFS performed lower than the LPL of 74.6 percent. PCPP performed the same as the national HEDIS 2008 Medicaid 50th percentile of 81.9 percent, and did not reach the HPL of 93.5 percent. RMHP was the only health plan to perform above the national HEDIS 2008 Medicaid 50th percentile and the HPL.

The Colorado statewide weighted average increased from 21.8 percent in 2008 to 71.3 percent in 2009, a statistically significant increase. The 2009 weighted average ranked below the LPL.

Annual Dental Visit

The American Academy of Pediatric Dentistry (AAPD) recommends that dental visits begin with the appearance of a child's first tooth, typically around six months of age, but no later than 1 year of age. During dental visits dentists check for proper oral and facial development to determine whether teeth are growing in properly and to detect early tooth decay. Tooth decay, even in the earliest stages of life, can have serious implications for a child's long-term health and well-being.[4-15] According to the CDC, tooth decay (dental caries) affects U.S. children more than any other chronic infectious disease.[4-16] However, the combination of dental sealants and fluoride has the potential to virtually eradicate tooth decay in children.[4-17]

Between 2001 and 2004, 19.5 percent of U.S. children 2 to 5 years of age had untreated dental caries, while 22.9 percent of children 6 to 19 years of age had untreated dental caries.[4-18] In 2007, 70.5 percent of Colorado children had received all needed preventive dental care during the previous 12 months.[4-19]

This measure calculates the percentage of members 2 to 21 years of age who had at least one dental visit during the measurement year and who had dental care as a covered benefit in the health plan's Medicaid contract. The measure consists of two numerators:

- *Annual Dental Visit—Ages 2 to 3 Years*
- *Annual Dental Visit—Ages 4 to 6 Years*
- *Annual Dental Visit—Ages 7 to 10 Years*
- *Annual Dental Visit—Ages 11 to 14 Years*
- *Annual Dental Visit—Ages 15 to 18 Years*
- *Annual Dental Visit—Ages 29 to 21 Years*
- *Annual Dental Visit—Total*

[4-15] Edelman Communications, Press Release: CDC/Dental Visits, CDC Report Highlights Importance of Pediatric Dental Visits, Research Links Early Dental Care to Long-term Health Benefits. Available at: http://www.aapd.org/media/pressreleases/PDVRelease.pdf. Accessed October 20, 2009.

[4-16] Centers for Disease Control and Prevention. Children's Oral Health. Available at: http://www.cdc.gov/OralHealth/topics/child.htm. Accessed on August 31, 2009.

[4-17] Ibid.

[4-18] Centers for Disease Control and Prevention. Oral and Dental Health. Available at: http://www.cdc.gov/nchs/FASTATS/dental.htm. Accessed on August 31, 2009.

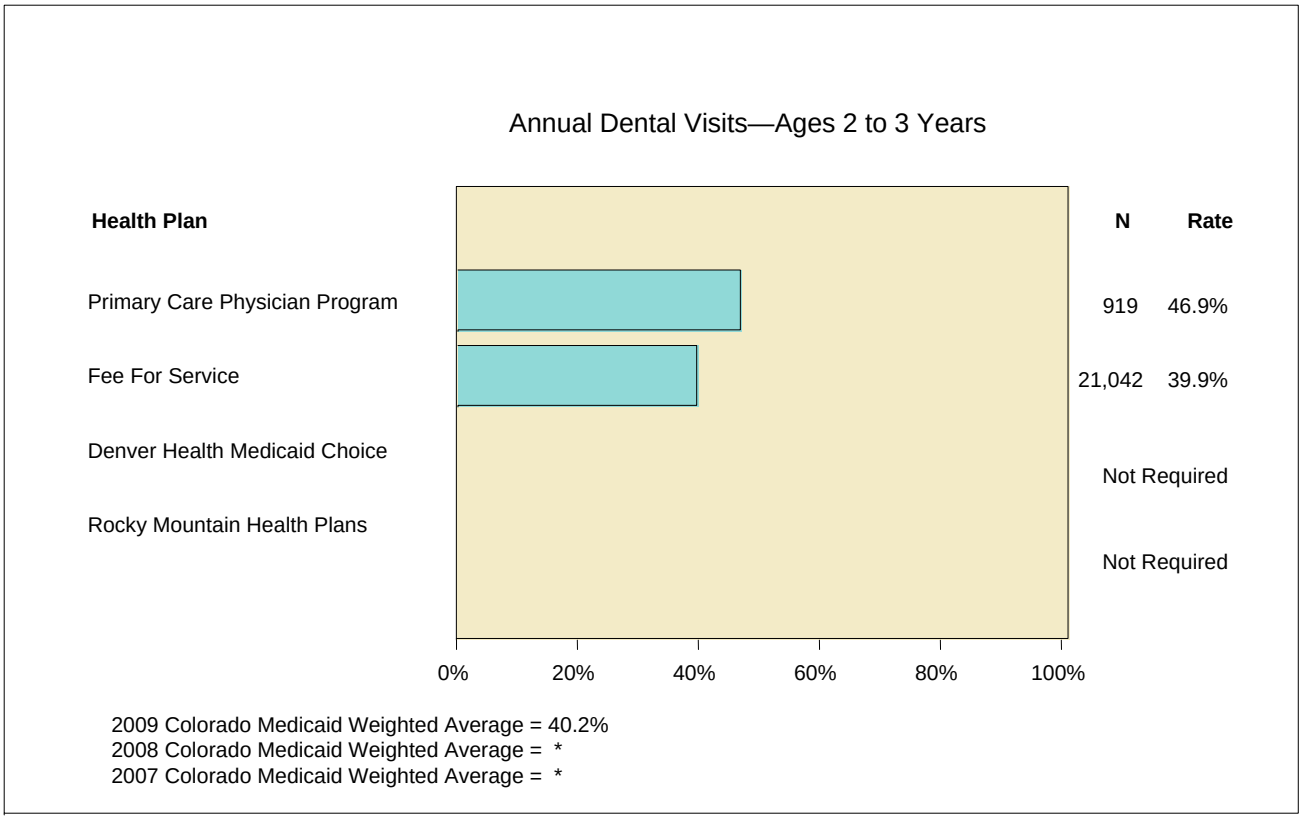
[4-19] The 2008 Colorado Health Report Card. The Colorado Health Foundation. Available at: http://www.coloradohealthreportcard.org/ReportCard/2008/subdefault.aspx?id=2780. Accessed on September 1, 2009.

HEDIS Specification: Annual Dental Visit—Ages 2 to 3 Years

The *Annual Dental Visit—Ages 2 to 3 Years* measure calculates the percentage of children 2 to 3 years of age who were continuously enrolled during the measurement year and who had at least one dental visit during the measurement year.

Health Plan Ranking: Annual Dental Visit—Ages 2 to 3 Years

Figure 4-10—Colorado Medicaid HEDIS 2009 Health Plan Ranking: *Annual Dental Visit—Ages 2 to 3 Years*



***Note:** This is the first year the State is reporting this measure; therefore, no year-to-year comparisons are displayed. DHMC and RMHP were not required to report this measure this year; therefore, rates are only displayed for the FFS and PCPP populations.*

PCPP was the top-performing program, followed by FFS. The Colorado statewide weighted average for 2009 was 40.2 percent, which PCPP exceeded.

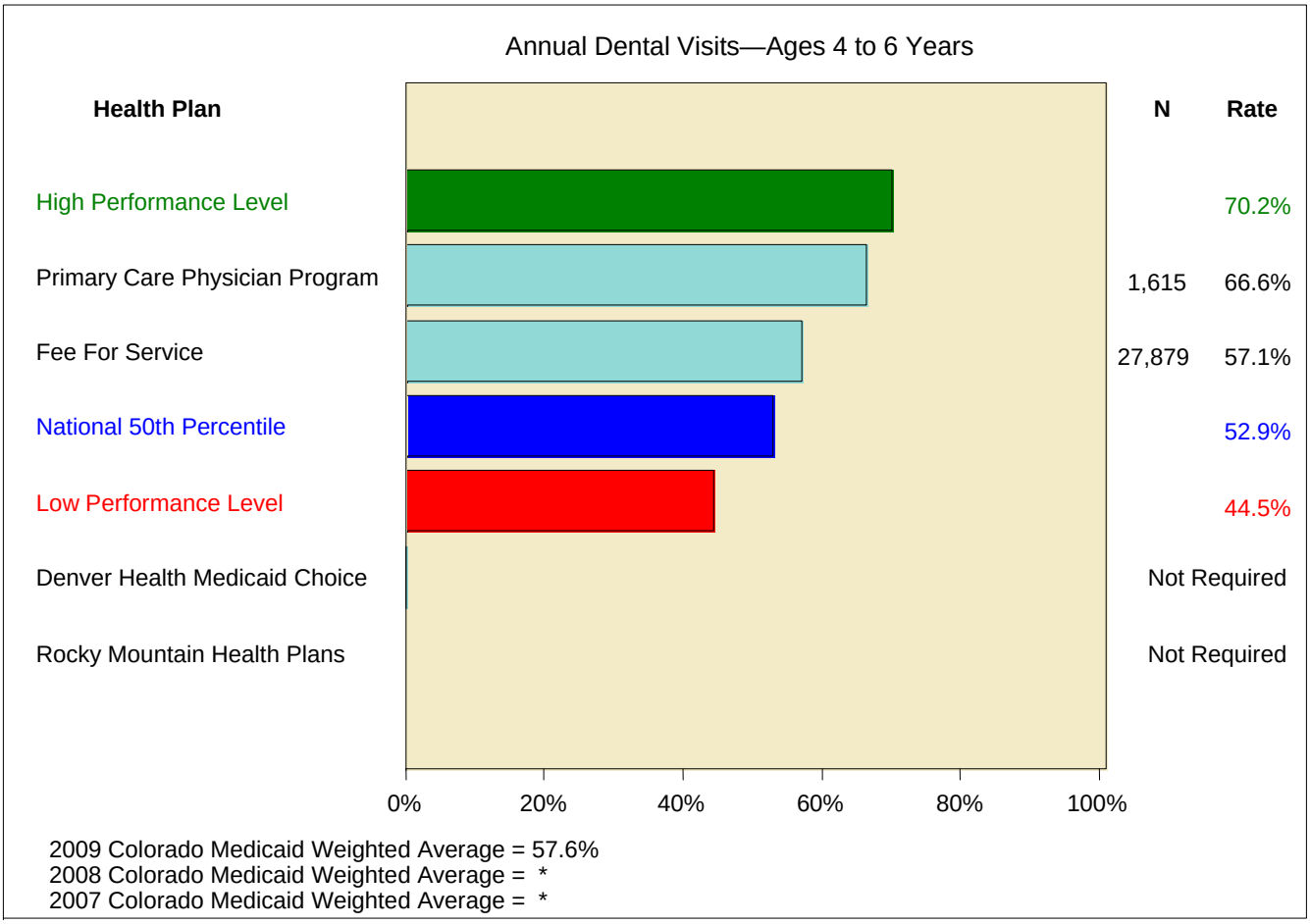
NCQA did not have audit means and percentiles available for this measure specific to this age cohort; therefore, the LPL, 50th percentile, and HPL are not displayed.

HEDIS Specification: Annual Dental Visit—Ages 4 to 6 Years

The *Annual Dental Visit—Ages 4 to 6 Years* measure calculates the percentage of children 4 to 6 years of age who were continuously enrolled during the measurement year and who had at least one dental visit during the measurement year.

Health Plan Ranking: Annual Dental Visit—Ages 4 to 6 Years

Figure 4-11—Colorado Medicaid HEDIS 2009 Health Plan Ranking: *Annual Dental Visit—Ages 4 to 6 Years*



***Note:** This is the first year the State is reporting this measure; therefore, no year-to-year comparisons are displayed. DHMC and RMHP were not required to report this measure this year; therefore, rates are only displayed for the FFS and PCPP populations.*

Both PCPP and FFS performed better than the national HEDIS 2008 Medicaid 50th percentile of 52.9 percent, but they did not reach the HPL of 70.2 percent.

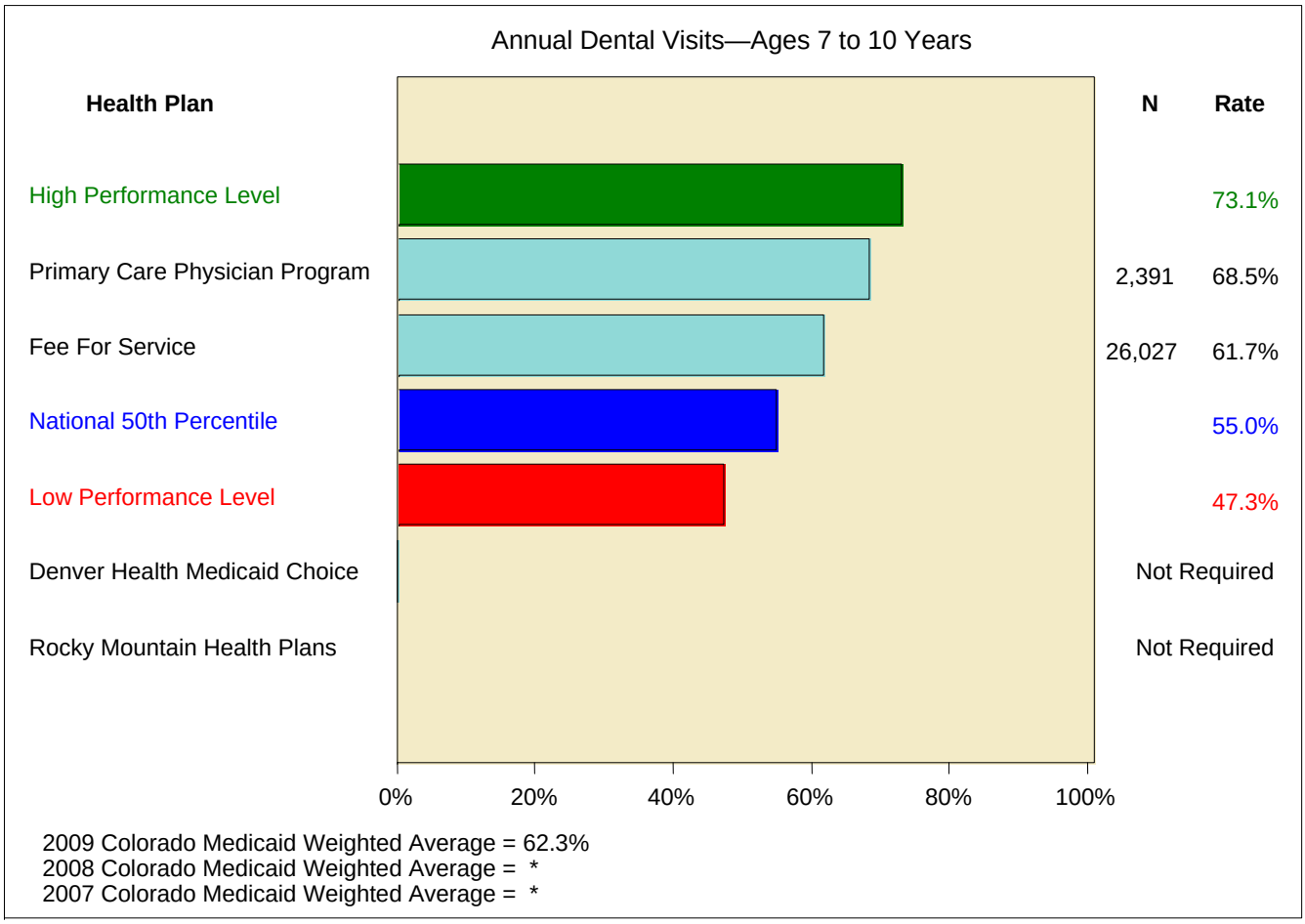
The Colorado statewide weighted average for 2009 was 57.6 percent, which ranked above the national 50th percentile of 52.9 percent.

HEDIS Specification: Annual Dental Visit—Ages 7 to 10 Years

The *Annual Dental Visit—Ages 7 to 10 Years* measure calculates the percentage of children 7 to 10 years of age who were continuously enrolled during the measurement year and who had at least one dental visit during the measurement year.

Health Plan Ranking: Annual Dental Visit—Ages 7 to 10 Years

Figure 4-12—Colorado Medicaid HEDIS 2009 Health Plan Ranking: *Annual Dental Visit—Ages 7 to 10 Years*



***Note:** This is the first year the State is reporting this measure; therefore, no year-to-year comparisons are displayed. DHMC and RMHP were not required to report this measure this year; therefore, rates are only displayed for the FFS and PCPP populations.*

Both PCPP and FFS performed better than the national HEDIS 2008 Medicaid 50th percentile of 55.0 percent, but they did not reach the HPL of 73.1 percent.

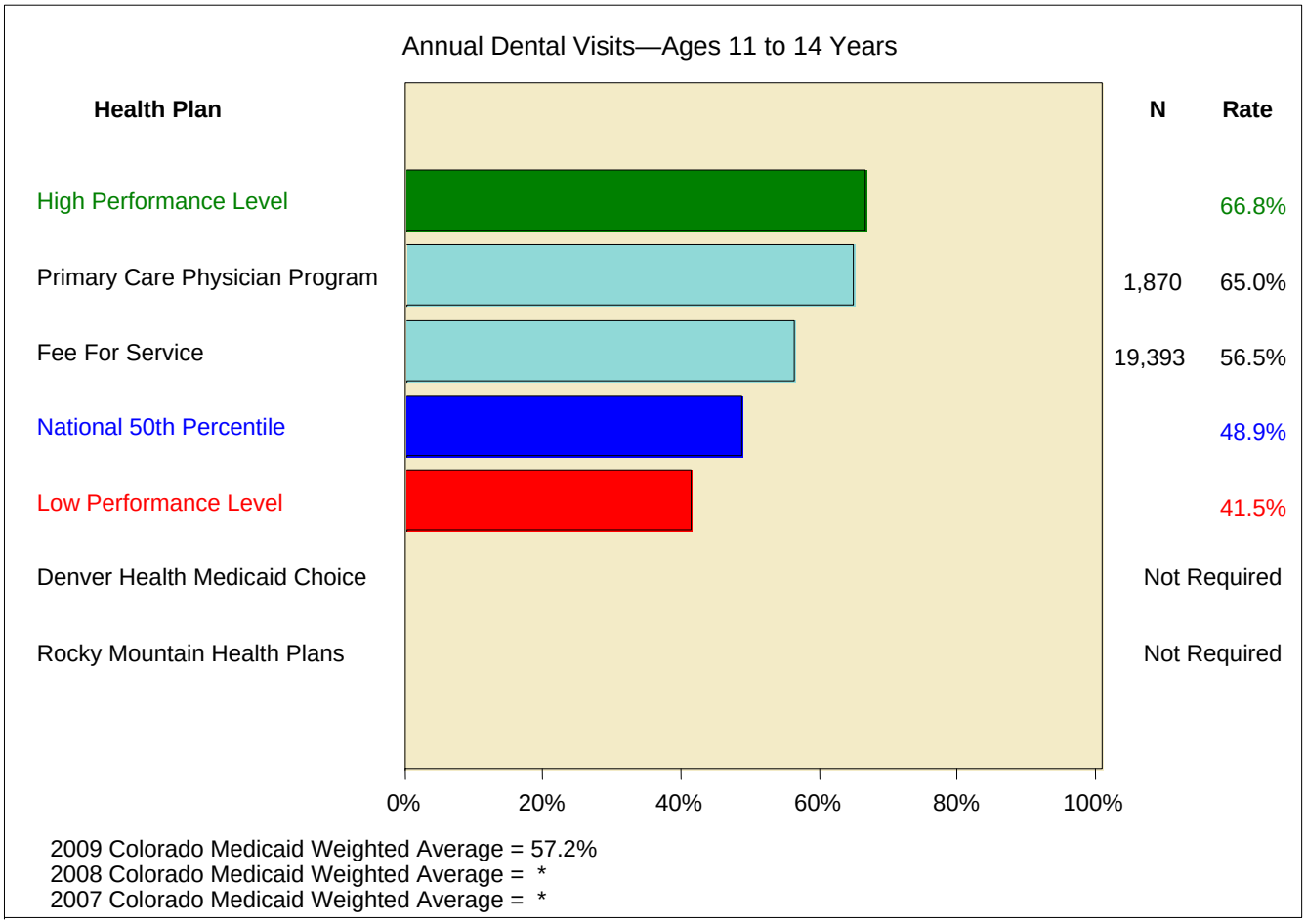
The Colorado statewide weighted average for 2009 was 62.3 percent, which ranked above the national 50th percentile of 55.0 percent.

HEDIS Specification: Annual Dental Visit—Ages 11 to 14 Years

The *Annual Dental Visit—Ages 11 to 14 Years* measure calculates the percentage of children 11 to 14 years of age who were continuously enrolled during the measurement year and who had at least one dental visit during the measurement year.

Health Plan Ranking: Annual Dental Visit—Ages 11 to 14 Years

Figure 4-13—Colorado Medicaid HEDIS 2009 Health Plan Ranking: *Annual Dental Visit—Ages 11 to 14 Years*



***Note:** This is the first year the State is reporting this measure; therefore, no year-to-year comparisons are displayed. DHMC and RMHP were not required to report this measure this year; therefore, rates are only displayed for the FFS and PCPP populations.*

Both PCPP and FFS performed better than the national HEDIS 2008 Medicaid 50th percentile of 48.9 percent, but they did not reach the HPL of 66.8 percent.

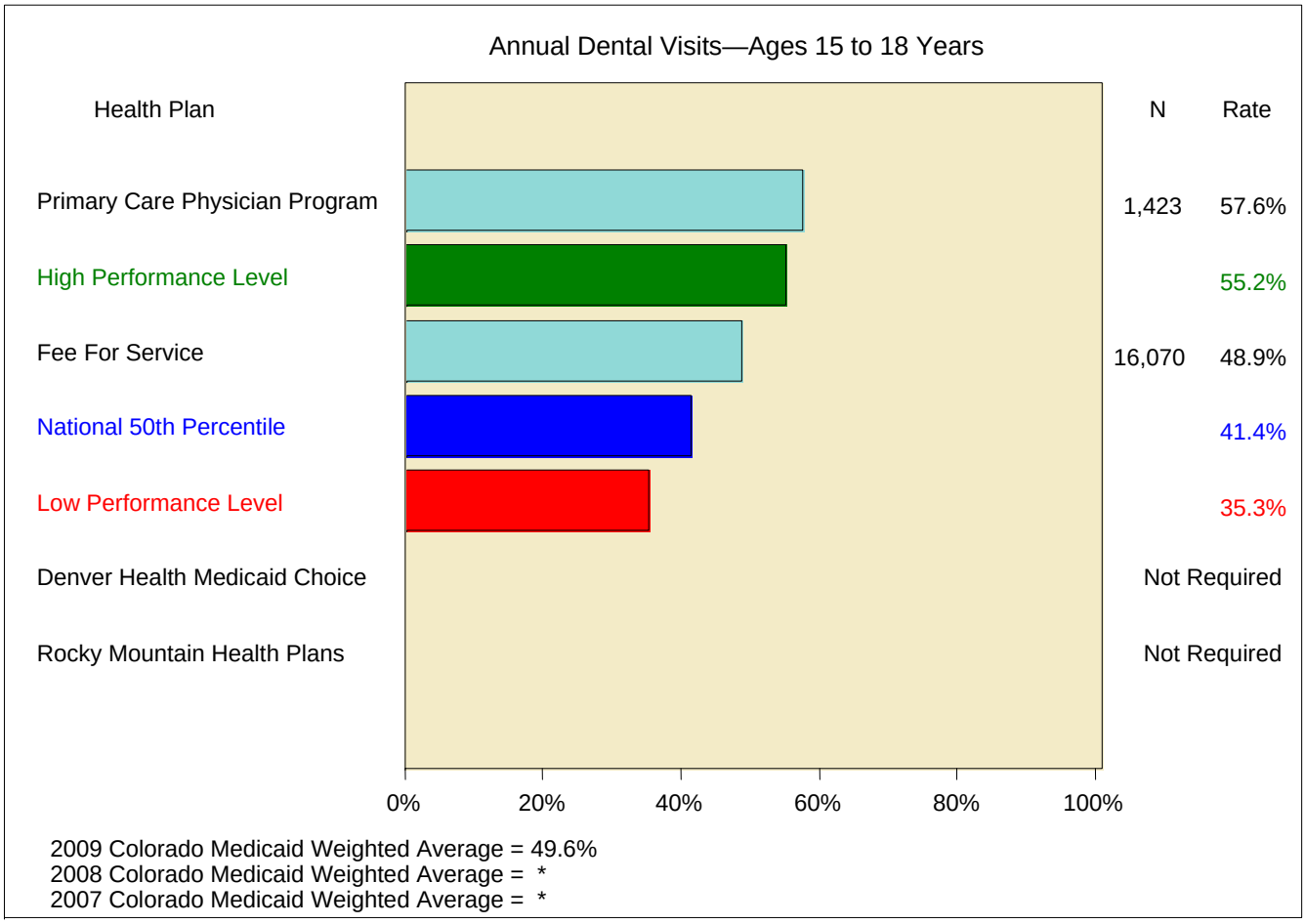
The Colorado statewide weighted average for 2009 was 57.2 percent, which ranked above the national 50th percentile of 48.9 percent.

HEDIS Specification: Annual Dental Visit—Ages 15 to 18 Years

The *Annual Dental Visit—Ages 15 to 18 Years* measure calculates the percentage of children 15 to 18 years of age who were continuously enrolled during the measurement year and who had at least one dental visit during the measurement year.

Health Plan Ranking: Annual Dental Visit—Ages 15 to 18 Years

Figure 4-14—Colorado Medicaid HEDIS 2009 Health Plan Ranking: *Annual Dental Visit—Ages 15 to 18 Years*



***Note:** This is the first year the State is reporting this measure; therefore, no year-to-year comparisons are displayed. DHMC and RMHP were not required to report this measure this year; therefore, rates are only displayed for the FFS and PCPP populations.*

Both PCPP and FFS performed better than the national HEDIS 2008 Medicaid 50th percentile of 41.4 percent, but only PCPP exceeded the HPL of 55.2 percent.

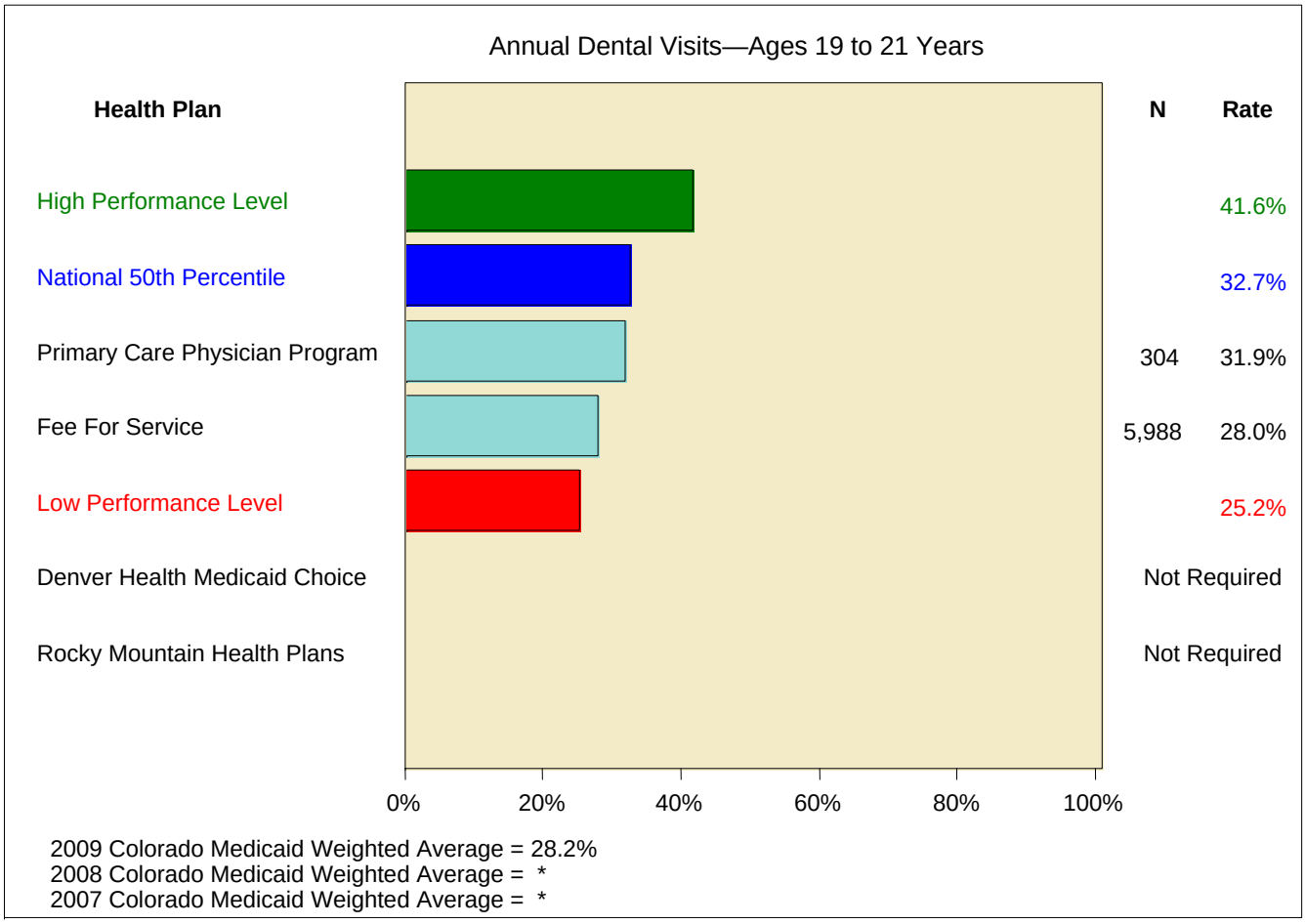
The Colorado statewide weighted average for 2009 was 49.6 percent, which ranked above the national 50th percentile of 41.4 percent.

HEDIS Specification: Annual Dental Visit—Ages 19 to 21 Years

The *Annual Dental Visit—Ages 19 to 21 Years* measure calculates the percentage of children 19 to 21 years of age who were continuously enrolled during the measurement year and who had at least one dental visit during the measurement year.

Health Plan Ranking: Annual Dental Visit—Ages 19 to 21 Years

Figure 4-15—Colorado Medicaid HEDIS 2009 Health Plan Ranking: *Annual Dental Visit—Ages 19 to 21 Years*



***Note:** This is the first year the State is reporting this measure; therefore, no year-to-year comparisons are displayed. DHMC and RMHP were not required to report this measure this year; therefore, rates are only displayed for the FFS and PCPP populations.*

Both PCPP and FFS performed better than the LPL of 25.2 percent, but they did not reach the national HEDIS 2008 Medicaid 50th percentile of 32.7 percent or the HPL of 41.6 percent.

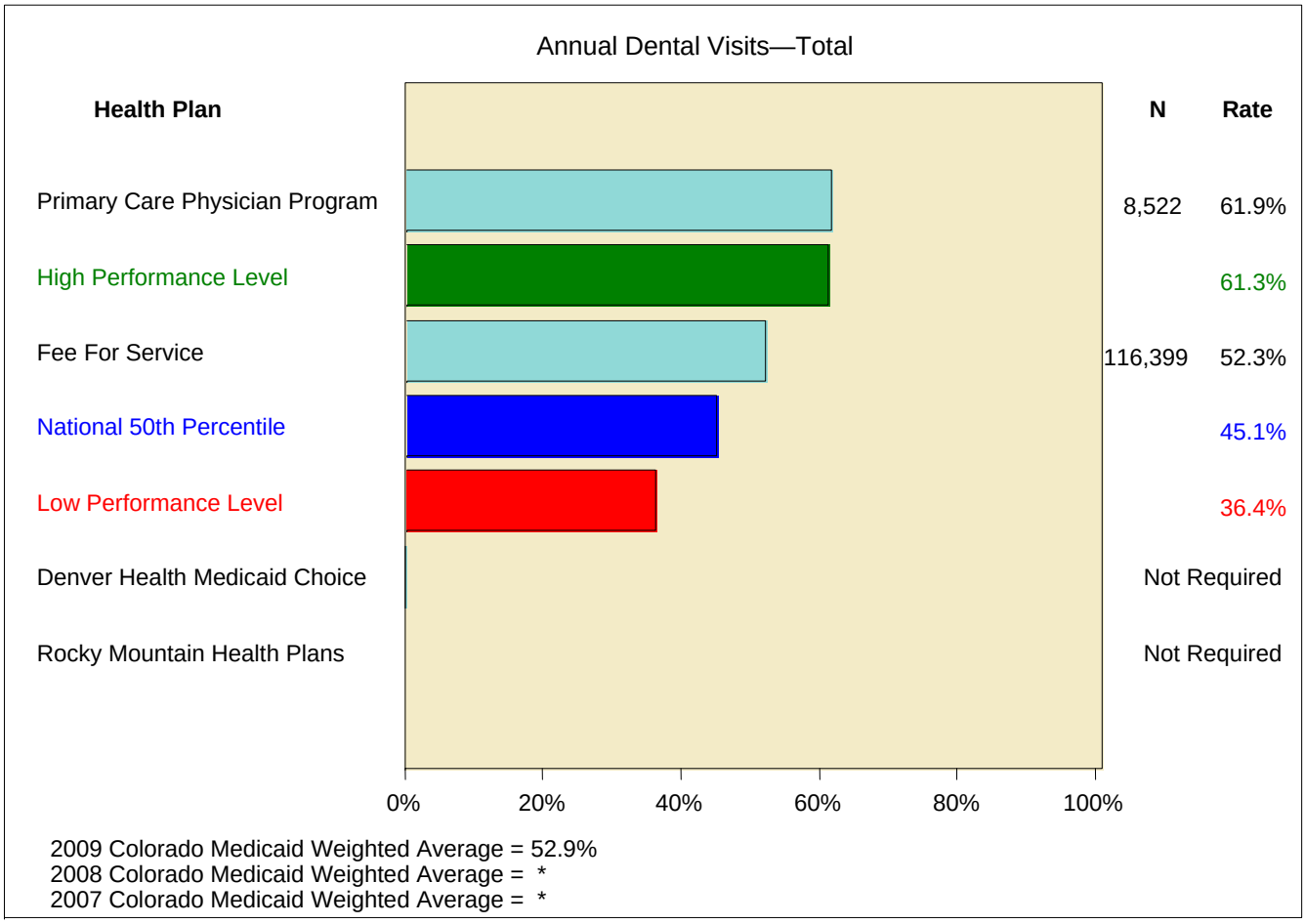
The Colorado statewide weighted average for 2009 was 28.2 percent, which ranked above the LPL of 25.2 percent.

HEDIS Specification: Annual Dental Visit—Total

The *Annual Dental Visit—Total* measure calculates the percentage of children 2 to 21 years of age who were continuously enrolled during the measurement year and who had at least one dental visit during the measurement year.

Health Plan Ranking: Annual Dental Visit—Total

Figure 4-16—Colorado Medicaid HEDIS 2009 Health Plan Ranking: *Annual Dental Visit—Total*



***Note:** This is the first year the State is reporting this measure; therefore, no year-to-year comparisons are displayed. DHMC and RMHP were not required to report this measure this year; therefore, rates are only displayed for the FFS and PCPP populations.*

Both PCPP and FFS performed better than the national HEDIS 2008 Medicaid 50th percentile of 45.1 percent, but only PCPP exceeded the HPL of 61.3 percent.

The Colorado statewide weighted average for 2009 was 52.9 percent, which ranked above the national 50th percentile of 45.1 percent.

Access to Care Findings and Recommendations

Findings

Performance for the measures in the Access to Care dimension of care was below average to average compared to national standards. None of the 2009 Colorado Medicaid weighted averages, except for *Annual Dental Visit*, reached the national HEDIS 2008 Medicaid 50th percentile for the measures the Colorado Medicaid health plans were required to report. For the *Annual Dental Visit* measure, which only the FFS and PCPP programs were required to report, all of the submeasures (except for the *Ages 19 to 21 Years* submeasure) performed above the 50th percentile.

The Colorado Medicaid weighted average for the *Prenatal and Postpartum Care—Timeliness of Prenatal Care* measure improved by 11.3 percentage points due to increases in the rates for three of the health plans. However, the weighted average of 67.1 percent still ranked well below the national Medicaid 50th percentile of 84.1 percent. RMHP's rate decreased slightly; however, it remained the State's top performer for this measure, with a rate (95.2 percent) that ranked well above the national HPL of 91.4 percent.

For the *Prenatal and Postpartum Care—Postpartum Care* measure, RMHP's rate remained stable. RMHP continued to be the highest-performing health plan, scoring above the HPL again this year. The PCPP population experienced a decrease of 7.1 percentage points for this measure, which caused its rate to drop from above the 50th percentile last year to below the 50th percentile this year. DHMC experienced an increase in its rate of 3.9 percentage points for this measure and ranked above the LPL this year. Overall, the Colorado Medicaid weighted average remained stable. Like last year, the weighted average continued to rank just above the LPL.

Providers who see patients outside of the time parameters set by NCQA for this measure can impact the rate. NCQA specifications require that providers see members for a postpartum care checkup on or between 21 to 56 days after delivery. The NCQA specifications are derived from standard practice for postpartum care. However, a common practice among providers, especially for women who deliver their babies by Caesarean section, is to see their patients sooner than 21 days after delivery to remove sutures or check the surgical site. Although this is considered good practice, these women should still be encouraged to return to their provider for the standard six-week postpartum checkup. When patients do not receive this checkup, the result can be a negative impact on the rate for this measure.

Recommendations

PIPs focusing on prenatal and postpartum care have been effective in improving HEDIS rates corresponding to *Timeliness of Prenatal Care* and *Postpartum Care*. For an intervention to be successful, it should address a specific barrier identified after conducting some type of causal/ barrier analysis. This identified barrier, which is likely the reason for untimely and/or missed prenatal and postpartum appointments, should determine which intervention or combination of interventions is applicable.

HSAG has compiled the following information on interventions successfully implemented by health plans. These interventions came from PIPs that demonstrated sustained improvement for the two HEDIS submeasures, *Timeliness of Prenatal Care* and *Postpartum Care*.[4-20]

System/provider interventions:

- Implement CPT Category II codes to facilitate the administrative capture of prenatal and postpartum visits.
- Distribute HEDIS results to medical directors.

Either prenatal or postpartum visits:

- Provide bus tokens or taxi vouchers for transportation.
- Offer incentives for timely prenatal and postpartum visits. (Incentives ranged from baby books to car seats.)
- Use multiple attempts to contact members regarding missed appointments.

Prenatal visits:

- Provide priority scheduling to late-entry prenatal patients.
- Conduct mailings to members who are of childbearing age with information on women's health, including prenatal care.
- Encourage members to contact their provider when becoming pregnant by offering incentives for an early prenatal visit.

Postpartum visits:

- Schedule postpartum appointments at 36 weeks gestation. Appointments should be scheduled for four to eight weeks after delivery.
- Use an obstetrical database to identify patients four to six weeks after delivery who have not attended a postpartum visit and contact them to facilitate an appointment.
- Notify the appointment scheduling supervisor to set up postpartum appointments at hospital discharge. Make follow-up calls when rescheduling is needed.

Prenatal and postpartum care measures directly link to other HEDIS measures. Health plans that coordinate care and validate practice guidelines between internists, family practitioners, and obstetricians can positively affect maternal health. Incorporating alternative types of providers such as nurses and midwives has been associated with increased member satisfaction. Interventions that incorporate member tools for well-child visits and immunization schedules as part of the postpartum visit increase the corresponding HEDIS rates. Additionally, providing members with schedules of future screening requirements for breast and cervical cancer positively affect member compliance with clinical guidelines.

[4-20] Health Services Advisory Group. Validation of Performance and Quality Improvement Projects. Studies validated between 2004 and 2009.

Findings

The Colorado Medicaid health plans were not required to report the *Children's & Adolescents' Access to Primary Care Practitioners* measure last year; therefore, no year-to-year comparisons are included in this report. For the *Ages 12 to 24 Months* cohort, none of the health plans ranked above the HPL. RMHP's rate for this measure ranked above the national 50th percentile and missed the HPL by just one tenth of a percentage point. The other three health plans ranked below the LPL of 93.2 percent. DHMC's rate (90.6 percent) was just below the LPL. The rates for FFS and PCPP were extremely low (51.5 percent and 14.9 percent, respectively). The low FFS and PCPP rates pushed the Colorado Medicaid weighted average of 55.6 percent far below the LPL of 93.2 percent.

The rates for the *Children's & Adolescents' Access to Primary Care Practitioners—Ages 25 Months to 6 Years* cohort ranked consistently with the *Ages 12 to 24 Months* cohort, with RMHP ranking above the 50th percentile and the other three health plans ranking below the LPL. Again, low rates for both FFS (40.4 percent) and PCPP (22.8 percent) negatively impacted the Colorado Medicaid weighted average. Although DHMC's rate (77.6 percent) was below the LPL of 82.3 percent, it was not nearly as far below the LPL as rates for the FFS and PCPP populations. It should be noted that rates for the *Ages 12 to 24 Months* and *Ages 25 Months to 6 Years* cohorts are calculated using continuous enrollment criteria for the measurement year only, and a visit counts only if the child was seen during the measurement year.

The *Children's & Adolescents' Access to Primary Care Practitioners—Ages 7 to 11 Years* and *Ages 12 to 19 Years* cohorts were calculated using the continuous enrollment criteria of two years (the measurement year and the year prior to the measurement year). For an adolescent, a visit counts either during the measurement year or the year prior to the measurement year. For the *Ages 7 to 11 Years* cohort, RMHP ranked above the national Medicaid 50th percentile. DHMC ranked just below the LPL of 82.2, with a rate of 81.9 percent. The FFS rate of 39.3 percent ranked far below the LPL, along with PCPP, which scored the lowest for this indicator at 33.7 percent. The FFS and PCPP rates pushed the Colorado weighted average of 43.2 percent far below the LPL of 82.2 percent. The *Ages 12 to 19 Years* cohort had slightly better performance. RMHP scored right at the HPL of 91.9 percent, and DHMC ranked above the LPL for this submeasure. The FFS and PCPP rates ranked below the LPL of 78.1 percent, negatively impacting the Colorado weighted average to 43.9 percent.

Recommendations

HSAG compiled information on interventions health plans successfully implemented to improve *Children's & Adolescents' Access to Primary Care Practitioners*.[4-21] Many of the same interventions used to increase well-child visit rates also apply to this HEDIS measure. Health plans included specific information on the importance of annual visits and required services for this targeted age group as part of other intervention initiatives.

[4-21] Health Services Advisory Group. Validation of Performance and Quality Improvement Projects. Studies validated between 2004 and 2009.

Additional interventions included:

- Holding provider/office personnel in-services.
- Implementing CPT Category II codes to facilitate the administrative capture of visits.
- Implementing new female/child health initiatives.
- Establishing a member awards program.
- Coordinating transportation.
- Participating in health fairs.
- Having follow-up reminder letters with phone calls.

Health plans also identified the need to coordinate with other entities, especially community centers, that provide these services to increase data completeness. Another documented successful practice was a provider reminder system that alerts the provider to needed assessments or other required services when a member presents with an injury or other sick visit.

Findings

The *Adults' Access to Preventive/Ambulatory Health Services* measure experienced increases in rates for all of the age cohorts due to the large increases in rates for the FFS and PCPP populations. The large rate increases for FFS and PCPP can be attributed, for the most part, to the inclusion of certain crossover claim types in the HEDIS calculations for the first time this year. These increases contributed to the statistically significant increases (ranging from 10 percentage points to 49.5 percentage points) in the Colorado weighted averages for all three age cohorts for this measure. The percentile rankings were the same for the *Ages 20–44 Years* and *Ages 45–64 Years* cohorts. Rates for RMHP and PCPP ranked above the 50th percentile, FFS' rate and the Colorado weighted average ranked above the LPL, and DHMC's rate ranked below the LPL. There was a wider spread in the ranking of rates for the *Ages 65 Years and Older* cohort, with RMHP ranking above the HPL, PCPP ranking above the 50th percentile, and FFS, DHMC, and the Colorado weighted average ranking below the LPL. Since this measure can only be reported using the administrative method, health plans must be certain that they are receiving data for services rendered from all of their providers.

Recommendations

Many of the same interventions implemented to improve well-child visits and access to care for other age groups are used to improve the *Adults' Access to Preventive/Ambulatory Health Services* HEDIS measure results. The current literature points to a patient-centered care model to improve patient health outcomes and satisfaction. An Economic and Social Research Institute report outlines barriers and lessons learned in implementing this approach.[4-22] While the Medicaid population is not uninsured, adults can find navigating through the health care system difficult.

[4-22] Silow-Carroll, S, Alteras, T, Stepnick, L. Patient-Centered Care for the Underserved Populations: Definition and Best Practices. Economic and Social Research Institute. 2006.

Components related to access include:

- Providing a medical home.
- Keeping waiting times to a minimum.
- Providing convenient service hours.
- Promoting access and patient flow.
- Educating patients on how to navigate the health care system

A method to operationalize this model involves developing a collaborative project such as a statewide PIP or a QIP. HSAG has documented successful interventions for increasing member satisfaction with provider interactions and for improving customer service and communication in the adult member population.

Interventions include:

- Keeping medical records for all family members in one folder.
- Providing Web-based clinical guidelines.
- Supplying members with refrigerator magnets with health plan contact information.
- Encouraging patient-provider joint decisions through a "patient action health plan."
- Providing a post-visit summary that includes the provider, location, diagnosis, medications taken and/or prescribed, and referrals.

The patient-centered care model and any related interventions can translate to other HEDIS measures related to screening and chronic disease management.

The *Annual Dental Visit—Total* measure was reported only for the FFS and PCPP populations this year since the State did not require DHMC and RMHP to report this measure. Since this is the first year that the Department is reporting this measure, it is commendable that the rate for the FFS population ranked above the national 50th percentile, and the rate for the PCPP population ranked above the HPL.

Introduction

Chronic illness afflicts 133 million people in the United States—nearly half of all Americans—and accounts for the vast majority of health care spending.[5-1] By 2020, the aging U.S. population will push this number to an estimated 157 million.[5-2] Chronic diseases are responsible for 7 out of 10 deaths (for a total of 1.7 million people) in this country each year.[5-3] Chronic conditions also contribute to disability and decreased quality of life for many Americans, and more than 25 million people experience limitations in activity due to these conditions.[5-4]

More than 30 million people in the United States will suffer from asthma at some time during their lives, including almost 9 million children.[5-5] Among children, asthma tends to affect more boys than girls, although the incidence of the disease is higher in adult women than in adult men.[5-6] The economic impact of asthma is considerable—the disease costs $18 billion annually, including $8 billion in indirect costs.[5-7]

The American Diabetes Association estimates that 23.6 million people (8 percent of the population) have diabetes in the United States, although only about 17.9 million people have been diagnosed with the disease.[5-8] Another 57 million have "pre-diabetes," which refers to blood glucose levels above normal but not high enough for a formal diabetes diagnosis.

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

[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 September 1, 2009.
[5-2] Ibid.
[5-3] Centers for Disease Control and Prevention. Chronic Disease Overview. Available at: http://www.cdc.gov/nccdphp/overview.htm. Accessed on September 1, 2009.
[5-4] Ibid.
[5-5] National Committee for Quality Assurance. The State of Health Care Quality, 2008. Available at: http://www.ncqa.org/Portals/0/Newsroom/SOHC/SOHC_08.pdf. Accessed on September 1, 2009.
[5-6] National Heart, Lung, and Blood Institute. Diseases and Conditions Index: Asthma. Available at: http://www.nhlbi.nih.gov/health/dci/Diseases/Asthma/Asthma_WhoIsAtRisk.html. Accessed on September 1, 2009.
[5-7] National Committee for Quality Assurance. The State of Health Care Quality, 2008. Available at: http://www.ncqa.org/Portals/0/Newsroom/SOHC/SOHC_08.pdf. Accessed on September 1, 2009.
[5-8] American Diabetes Association. Diabetes Statistics. Available at: http://www.diabetes.org/diabetes-statistics/prevalence.jsp. Accessed on September 1, 2009.

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*
- ***Comprehensive Diabetes Care***
  - *Comprehensive Diabetes Care—Hemoglobin A1c (HbA1c) Testing*
  - *Comprehensive Diabetes Care—HbA1c Poor Control (>9.0%)*
  - *Comprehensive Diabetes Care—HbA1c Control (<8.0%)*
  - *Comprehensive Diabetes Care—Eye Exam (Retinal) Performed*
  - *Comprehensive Diabetes Care—LDL-C Screening Performed*
  - *Comprehensive Diabetes Care—LDL-C Control (<100 mg/dL)*
  - *Comprehensive Diabetes Care—Medical Attention for Nephropathy*
  - *Comprehensive Diabetes Care—Blood Pressure Control (<130/80 mm Hg)*
  - *Comprehensive Diabetes Care—Blood Pressure Control (<140/90 mm Hg)*
- ***Use of Appropriate Medications for People With Asthma***
  - *Use of Appropriate Medications for People With Asthma—Ages 5 to 9 Years*
  - *Use of Appropriate Medications for People With Asthma—Ages 10 to 17 Years*
  - *Use of Appropriate Medications for People With Asthma—Ages 18 to 56 Years*
  - *Use of Appropriate Medications for People With Asthma—Total*
- ***Annual Monitoring for Patients on Persistent Medications***
  - *Annual Monitoring for Patients on Persistent Medications—ACE Inhibitors 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 Medicaid health plans' performance on these measures.

Cholesterol Management for Patients With Cardiovascular Conditions

In the United States, coronary heart disease was responsible for more than 445,000 deaths in 2005 and is currently the leading cause of death.[5-9] The death rate from coronary heart disease declined 34.3 percent nationwide from 1995 to 2005.[5-10] However, the economic impact of cardiovascular disease remains significant, with annual treatment costs accounting for an estimated $448.5 billion.[5-11]

High blood cholesterol represents a significant risk factor for heart disease. Approximately 17 percent of U.S. adults 20 years of age or older have high total cholesterol.[5-12] In 2005, 73 percent of U.S. adults reported that they had their cholesterol checked during the previous five years, according to the CDC.[5-13] For patients with coronary heart disease, efforts to lower LDL cholesterol levels, such as low-fat diet plans or prescription drugs, can significantly lower the risk that they will suffer further heart events or a stroke.[5-14]

According to CDC's Behavioral Risk Factor Surveillance System, in 2008, 2.7 percent of surveyed Colorado adults had been told that they had coronary heart disease, while 2.9 percent had been told that they had a heart attack.[5-15] According to the American Heart Association, Colorado ranked fourth in the United States in 2005 for its age-adjusted death rate from cardiovascular disease, and eighth for its age-adjusted death rate from coronary heart disease.[5-16]

HEDIS Specification: Cholesterol Management for Patients With Cardiovascular Conditions

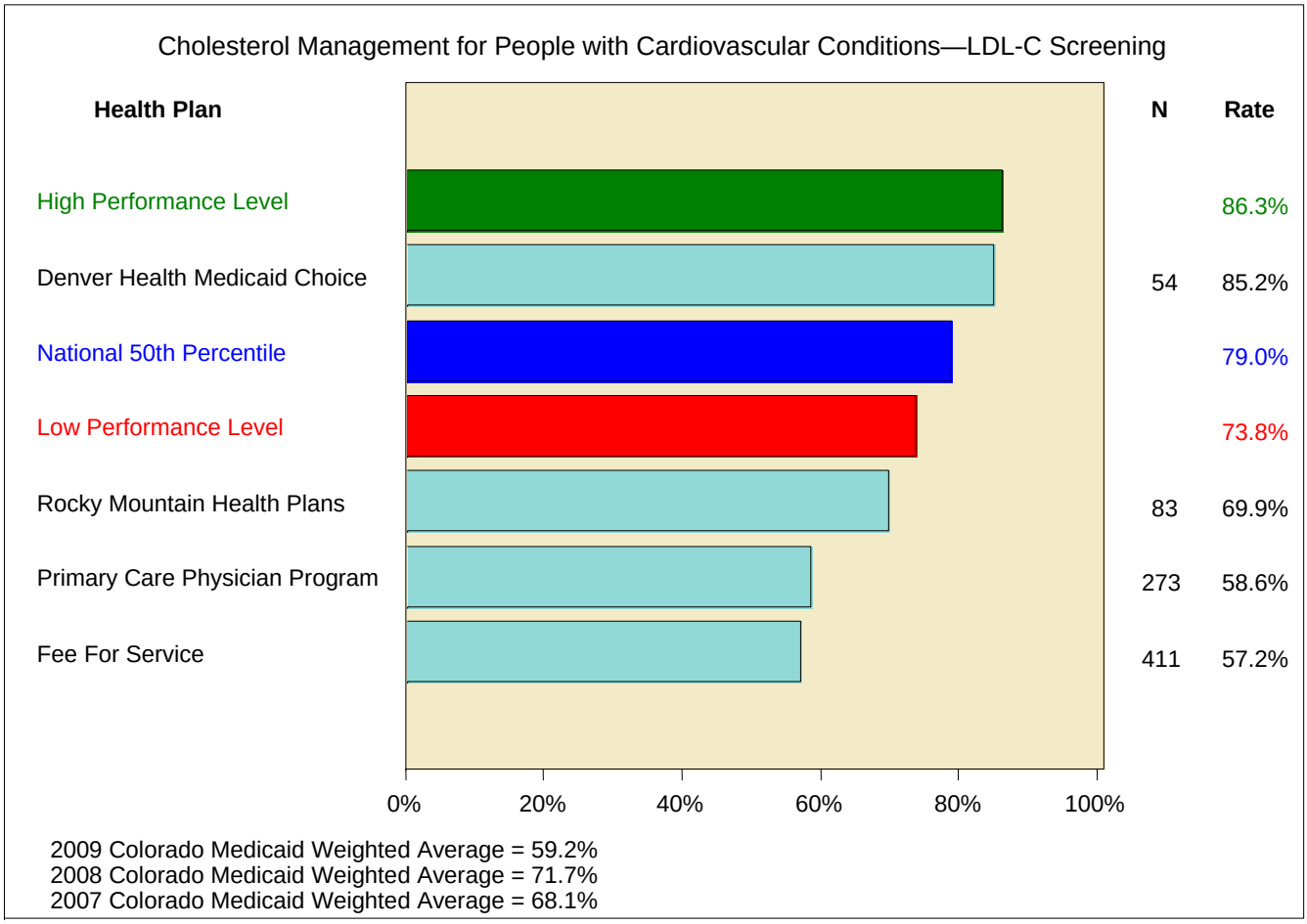
The *Cholesterol Management for Patients With Cardiovascular Conditions* measure assesses the percentage of members 18 to 75 years of age who were discharged alive for acute myocardial infarction (AMI), coronary artery bypass graft (CABG), or percutaneous transluminal coronary angioplasty (PTCA) from 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 (which are HEDIS submeasures) during the measurement year:

- *LDL-C Screening*
- *LDL-C Level <100 mg/dL*

[5-9] The American Heart Association. Cardiovascular Disease Statistics. Available at: http://www.americanheart.org/presenter.jhtml?identifier=4478. Accessed on September 9, 2009.
[5-10] Ibid.
[5-11] National Committee for Quality Assurance. The State of Health Care Quality, 2008. Available at: http://www.ncqa.org/Portals/0/Newsroom/SOHC/SOHC_08.pdf. Accessed on September 9, 2009.
[5-12] Centers for Disease Control and Prevention. Cholesterol—Facts and Statistics. Available at: http://www.cdc.gov/Cholesterol/facts.htm. Accessed on September 9, 2009.
[5-13] Ibid.
[5-14] National Committee for Quality Assurance. The State of Health Care Quality, 2008. Available at: http://www.ncqa.org/Portals/0/Newsroom/SOHC/SOHC_08.pdf. Accessed on September 9, 2009.
[5-15] Centers for Disease Control and Prevention. Behavioral Risk Factor Surveillance System. Available at: http://apps.nccd.cdc.gov/brfss/. Accessed on September 9, 2009.
[5-16] The American Heart Association. Heart Disease and Stroke Statistics—2009 Update. Available at: http://circ.ahajournals.org/cgi/reprint/CIRCULATIONAHA.108.191261. Accessed on September 9, 2009.

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

Figure 5-1—Colorado Medicaid HEDIS 2009 Health Plan Ranking:
Cholesterol Management for Patients With Cardiovascular Conditions—LDL-C Screening

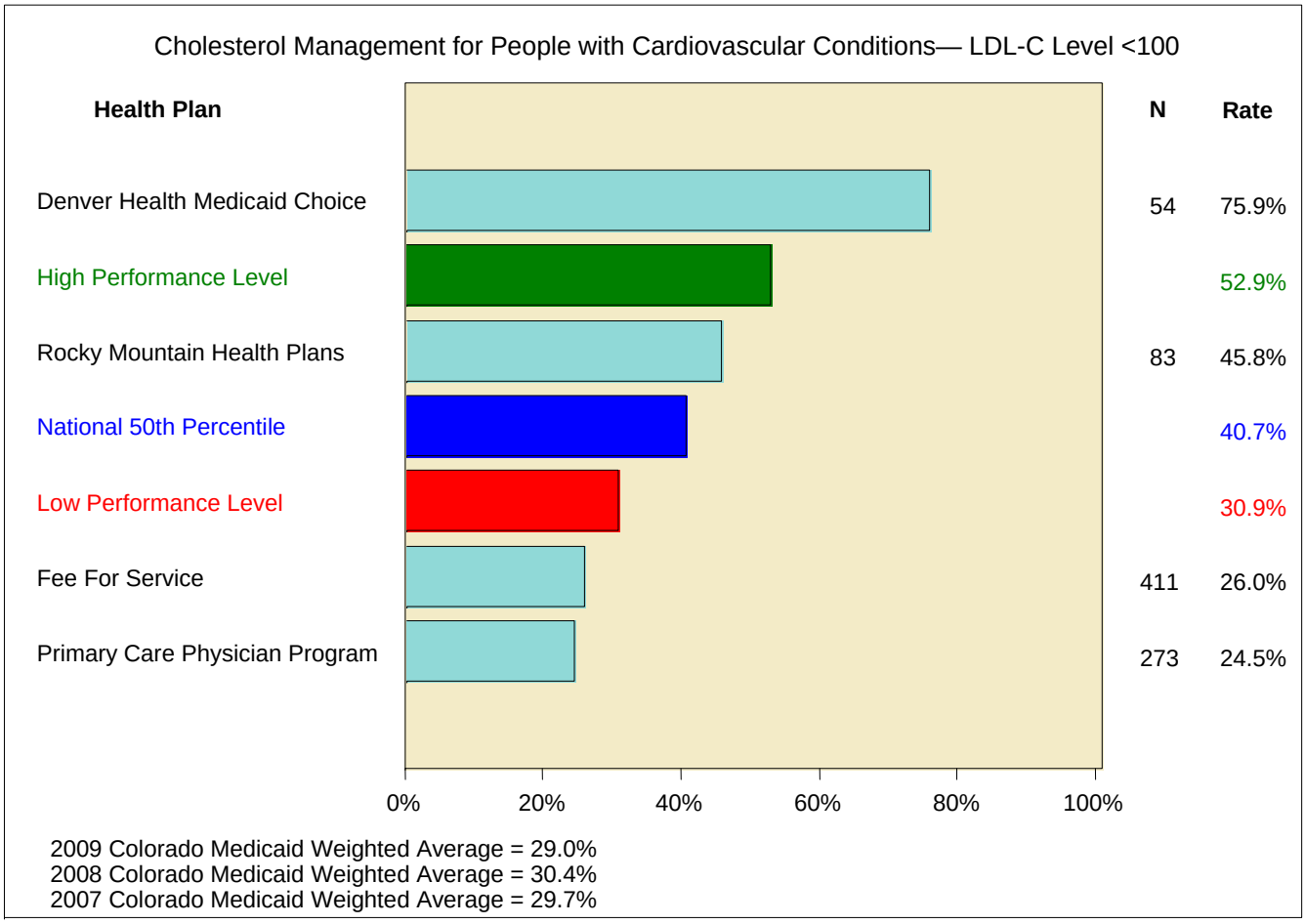


All of the health plans, except for DHMC, performed lower than the LPL of 73.8 percent. DHMC performed better than the LPL and the national HEDIS 2008 Medicaid 50th percentile of 79.0 percent, but did not reach the HPL of 86.3 percent.

The 2009 Colorado statewide weighted average decreased by 12.5 percentage points from 71.7 percent in 2008 to 59.2 percent in 2009 and ranked below the LPL of 73.8 percent.

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

Figure 5-2—Colorado Medicaid HEDIS 2009 Health Plan Ranking:
Cholesterol Management for Patients With Cardiovascular Conditions—LDL-C Level <100



Both FFS and PCPP performed lower than the LPL of 30.9 percent. While RMHP performed better than the LPL and the national HEDIS 2008 Medicaid 50th percentile of 40.7 percent, it did not reach the HPL of 52.9 percent. DHMC was the only health plan to exceed the HPL.

The 2009 Colorado statewide weighted average showed a decrease by 1.4 percentage points from 30.4 percent in 2008 to 29.0 percent in 2009 and ranked below the LPL.

Comprehensive Diabetes Care

While diabetes can result in many serious complications, such as heart disease and kidney disease, control of diabetes significantly reduces the rate of such complications and improves quality of life for diabetics. The annual cost of diabetes in the United States was an estimated $174 billion in 2007; $116 billion of this total was due to medical expenditures, while $58 billion was the result of lost productivity and other indirect costs.[5-17] The total cost has increased by $42 billion since 2002.

In Colorado, 5.3 percent of the adult population was affected by diabetes in 2007. This rate has increased, but remains below the national rate of approximately 8 percent.[5-18] Despite the State's low death rates from diabetes compared to the national average, the disease is one of the top 10 leading causes of death in Colorado, as reflected in the age-adjusted mortality rate of 17.2 deaths per 100,000 people (with diabetes as the underlying cause of death).[5-19]

The *Comprehensive Diabetes Care* measure is reported using nine separate rates:

1. *Comprehensive Diabetes Care—Hemoglobin A1c (HbA1c) Testing*
2. *Comprehensive Diabetes Care—HbA1c Poor Control (>9.0%)*
3. *Comprehensive Diabetes Care—HbA1c Control (<8.0%)*
4. *Comprehensive Diabetes Care—Eye Exam (Retinal) Performed*
5. *Comprehensive Diabetes Care—LDL-C Screening Performed*
6. *Comprehensive Diabetes Care—LDL-C Control (<100 mg/dL)*
7. *Comprehensive Diabetes Care—Medical Attention for Nephropathy*
8. *Comprehensive Diabetes Care—Blood Pressure Control (<130/80 mm Hg)*
9. *Comprehensive Diabetes Care—Blood Pressure Control (<140/90 mm Hg)*

The following pages provide detailed analysis of the Colorado Medicaid health plans' performance on these measures.

Note: *The State did not require that any of the health plans report the new HbA1c Control (<7.0%) first-year indicator since this measure requires a larger sample size. The State did require that the health plans report the new HbA1c Control (<8.0%) first-year indicator, and the results are displayed in this report.*

[5-17] American Diabetes Association. Direct and Indirect Costs of Diabetes in the United States. Available at: http://www.diabetes.org/diabetes-statistics/cost-of-diabetes-in-us.jsp. Accessed on September 9, 2009.
[5-18] Colorado Diabetes Prevention and Control Program. The Burden of Diabetes in Colorado. Available at: http://www.cdphe.state.co.us/pp/diabetes/reports/TheBurdenofDiabetesinCO.pdf. Accessed on September 9, 2009.
[5-19] Ibid.

Comprehensive Diabetes Care—HbA1c Testing

HbA1c testing (the hemoglobin A1c test or glycosylated hemoglobin test) shows the average blood glucose level over a period of two to three months. Specifically, the test measures the number of glucose molecules attached to hemoglobin in red blood cells. Although constantly replaced, individual cells live for about four months. Measuring attached glucose in a current blood sample can determine the average blood sugar levels from the previous two to three months. HbA1c test results are expressed as a percentage, with 4 percent to 6 percent considered normal. Diabetics who maintain near-normal HbA1c levels gain an extra five years of life, eight years of eyesight, and six years of freedom from kidney disease, on average.[5-20] In 2007, approximately 85 percent of diabetics in Colorado reported that they had their HbA1c levels checked at least once per year.[5-21]

HEDIS Specification: Comprehensive Diabetes Care—Hemoglobin A1c (HbA1c) Testing

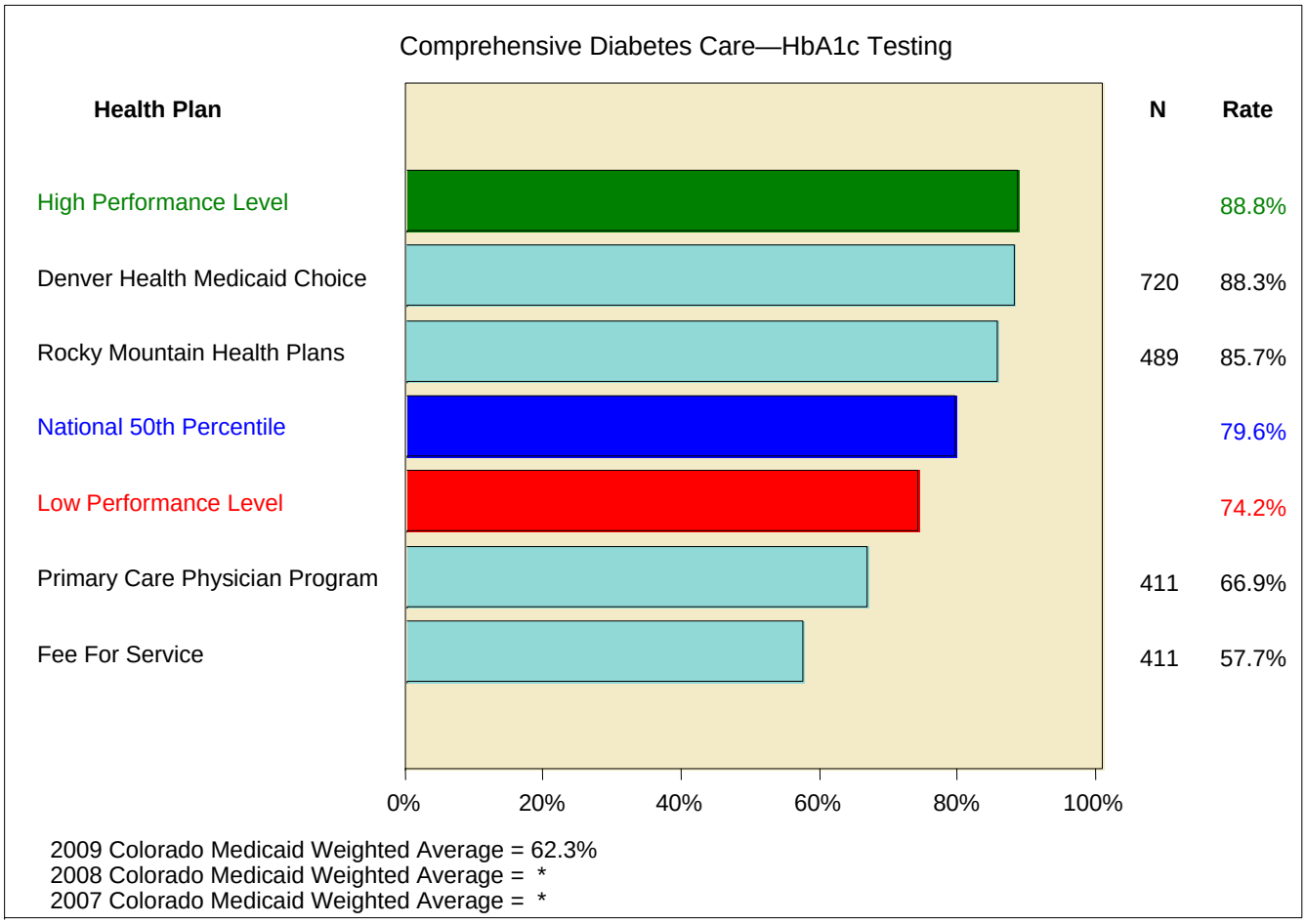
The *Comprehensive Diabetes Care—Hemoglobin A1c (HbA1c) Testing* rate reports the percentage of members with diabetes (Type 1 and Type 2) who were 18 to 75 years of age, who were continuously enrolled during the measurement year, and who had one or more HbA1c tests conducted during the measurement year with results identified through either administrative data or medical record review.

[5-20] National Committee for Quality Assurance. The State of Health Care Quality, 2008. Available at: http://www.ncqa.org/Portals/0/Newsroom/SOHC/SOHC_08.pdf. Accessed on September 15, 2009.

[5-21] Colorado Diabetes Prevention and Control Program. The Burden of Diabetes in Colorado. Available at: http://www.cdphe.state.co.us/pp/diabetes/reports/TheBurdenofDiabetesinCO.pdf. Accessed on September 15, 2009.

Health Plan Ranking: Comprehensive Diabetes Care—Hemoglobin A1c (HbA1c) Testing

Figure 5-3—Colorado Medicaid HEDIS 2009 Health Plan Ranking:
Comprehensive Diabetes Care—Hemoglobin A1c (HbA1c) Testing



Note: *This is the first year the State is reporting this measure; therefore, no year-to-year comparisons are displayed.*

Both PCPP and FFS performed lower than the LPL of 74.2 percent. While DHMC and RMHP performed better than the LPL and the national HEDIS 2008 Medicaid 50th percentile of 79.6 percent, they did not reach the HPL of 88.8 percent.

The 2009 Colorado statewide weighted average was 62.3 percent and ranked below the LPL of 74.2 percent.

Comprehensive Diabetes Care—HbA1c Poor Control (>9.0%)

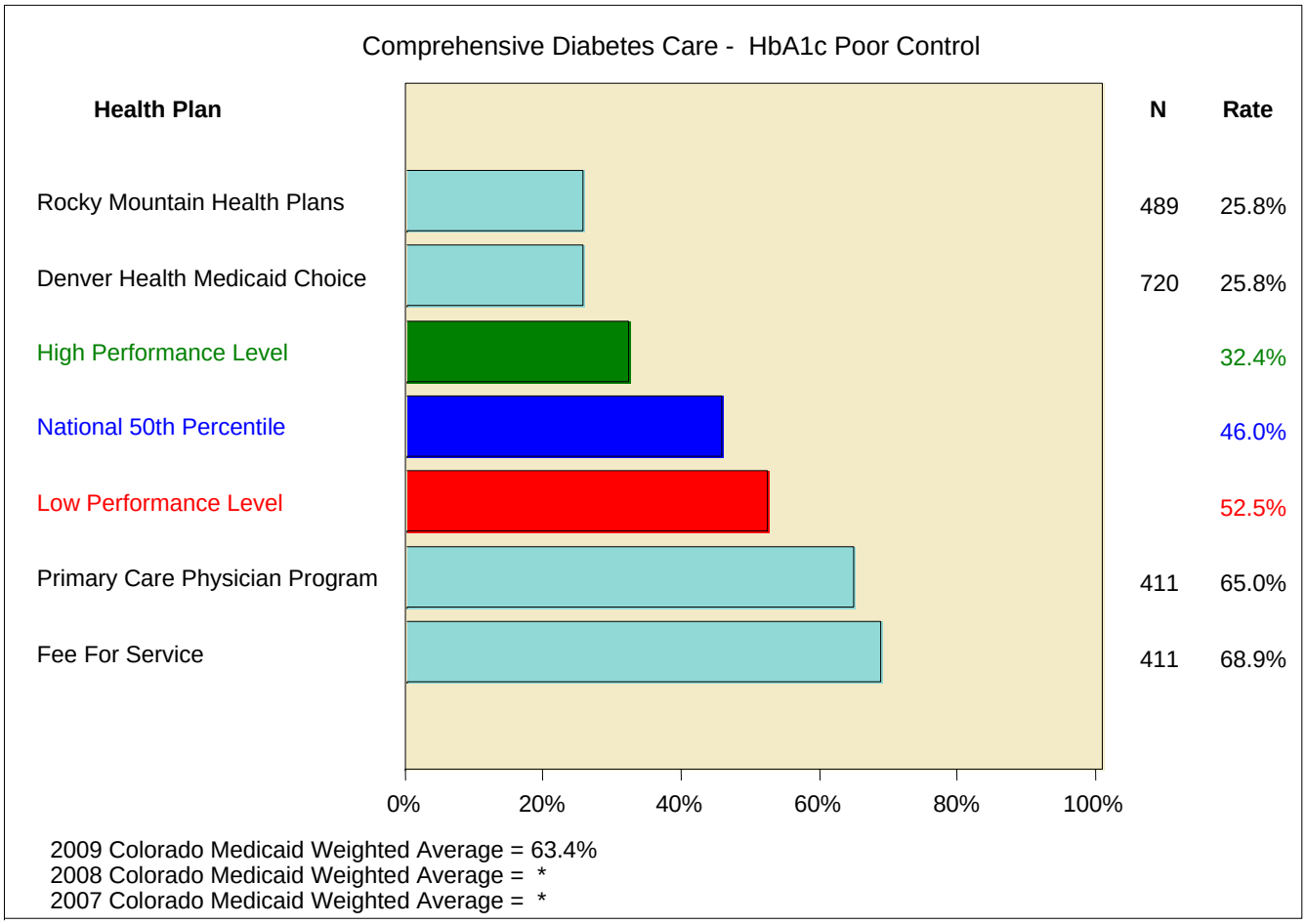
HbA1c control can improve quality of life, increase work productivity, and decrease health care utilization. Decreasing HbA1c levels lowers the risk of diabetes-related death. Controlling blood glucose levels in people with diabetes significantly reduces the risk for blindness, end-stage renal disease, and lower extremity amputation.

HEDIS Specification: Comprehensive Diabetes Care—HbA1c Poor Control (>9.0%)

The *Comprehensive Diabetes Care—HbA1c Poor Control (>9.0%)* rate reports the percentage of members with diabetes (Type 1 and Type 2), who were 18 to 75 years of age, who were continuously enrolled during the measurement year, and whose most recent HbA1c test conducted during the measurement year showed an HbA1c level of more than 9 percent, as documented through automated laboratory data and/or medical record review. If a member does not have an HbA1c level during the measurement year, the level is considered to be greater than 9 percent (i.e., no test is counted as poor HbA1c control).

Health Plan Ranking: Comprehensive Diabetes Care—HbA1c Poor Control (>9.0%)

Figure 5-4—Colorado Medicaid HEDIS 2009 Health Plan Ranking:
Comprehensive Diabetes Care—HbA1c Poor Control (>9.0%)



For this key measure, a *lower* rate indicates *better* performance since low rates of poor HbA1c control indicate better care.

***Note:** This is the first year the State is reporting this measure; therefore, no year-to-year comparisons are displayed.*

FFS and PCPP performed worse than the LPL of 52.5 percent, representing poorer care, while DHMC and RMHP performed better than the HPL of 32.4 percent, representing better care.

The Colorado statewide weighted average for 2009 was 63.4 percent and ranked below the LPL of 52.5 percent.

Comprehensive Diabetes Care—HbA1c Control (<8.0%) (First-Year Indicator)

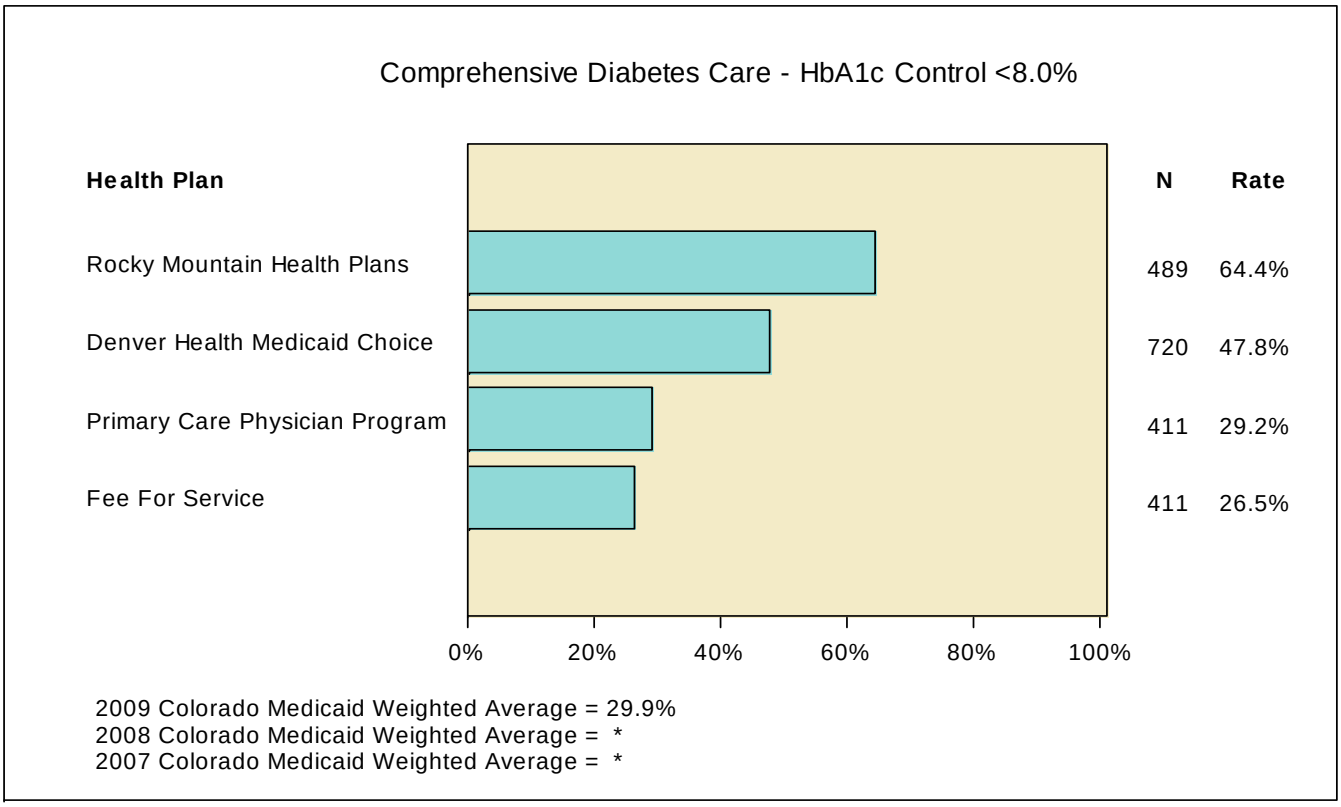
HbA1c control can improve quality of life, increase work productivity, and decrease health care utilization. Decreasing HbA1c levels lowers the risk of diabetes-related death. Controlling blood glucose levels in people with diabetes significantly reduces the risk for blindness, end-stage renal disease, and lower extremity amputation.

HEDIS Specification: Comprehensive Diabetes Care—HbA1c Control (<8.0%)

The *Comprehensive Diabetes Care—HbA1c Control (<8.0%)* rate reports the percentage of members with diabetes (Type 1 and Type 2) who were 18 to 75 years of age, who were continuously enrolled during the measurement year, and whose most recent HbA1c test conducted during the measurement year had a result of less than 8.0 percent, identified through either administrative data or medical record review.

Health Plan Ranking: Comprehensive Diabetes Care—HbA1c Control (<8.0%)

Figure 5-5—Colorado Medicaid HEDIS 2009 Health Plan Ranking:
Comprehensive Diabetes Care—HbA1c Control (<8.0%)



Note: *This is the first year the State is reporting this measure; therefore, no year-to-year comparisons are displayed.*

Since this is a first-year HEDIS measure for NCQA, national audit means and percentiles were not available for comparative purposes. When the health plans were compared to each other, RMHP was the top-performing health plan for this measure, followed by DHMC, PCPP, and FFS.

The Colorado statewide weighted average was 29.9 percent for this measure.

Comprehensive Diabetes Care—Eye Exam (Retinal) Performed

Diabetic retinopathy (abnormalities of the small blood vessels of the retina caused by diabetes) causes 12,000 to 24,000 new cases of blindness each year, and is the leading cause of new cases of blindness in adults 20 to 74 years of age.[5-22] Up to 21 percent of Type 2 diabetics have retinopathy when they are first diagnosed with diabetes, and most will eventually develop some degree of retinopathy.[5-23] However, with timely and appropriate intervention, which may include laser treatment and vitrectomy, blindness can be reduced by up to 90 percent in patients with severe diabetic retinopathy.[5-24]

Regular dilated eye exams are vital for diabetics to detect and treat retinopathy in its early stages, which can substantially reduce blindness. In Colorado, 66.6 percent of diabetics reported having a dilated eye exam at least once per year.[5-25]

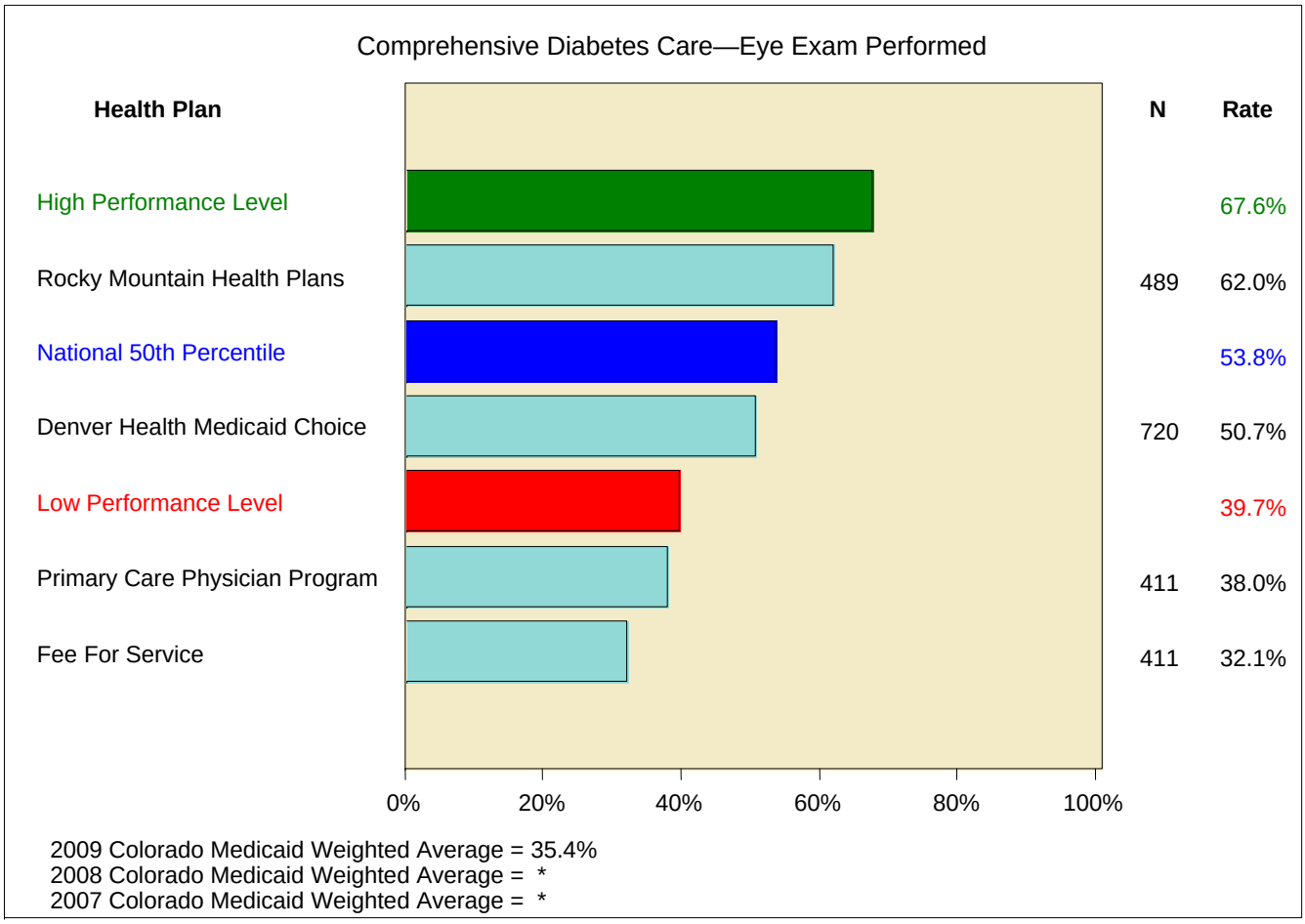
HEDIS Specification: Comprehensive Diabetes Care—Eye Exam (Retinal) Performed

The *Comprehensive Diabetes Care—Eye Exam (Retinal) Performed* rate reports the percentage of members with diabetes (Type 1 and Type 2) who were 18 to 75 years of age, who were continuously enrolled during the measurement year, and who had an eye screening for diabetic retinal diseases (i.e., a retinal exam by an eye care professional), as documented through either administrative data or medical record review.

[5-22] American Diabetes Association. Diabetes and Retinopathy (Eye Complications). Available at: http://www.diabetes.org/diabetes-statistics/eye-complications.jsp. Accessed on July 13, 2009.
[5-23] Ibid.
[5-24] National Institutes of Health. Fact Sheet: Diabetic Retinopathy. Available at: http://www.nih.gov/about/researchresultsforthepublic/DiabeticRetinopathy.pdf. Accessed on September 15, 2009.
[5-25] Colorado Diabetes Prevention and Control Program. The Burden of Diabetes in Colorado. Available at: http://www.cdphe.state.co.us/pp/diabetes/reports/TheBurdenofDiabetesinCO.pdf. Accessed on September 15, 2009.

Health Plan Ranking: Comprehensive Diabetes Care—Eye Exam (Retinal) Performed

Figure 5-6—Colorado Medicaid HEDIS 2009 Health Plan Ranking:
Comprehensive Diabetes Care—Eye Exam (Retinal) Performed



Note: *This is the first year the State is reporting this measure; therefore, no year-to-year comparisons are displayed.*

PCPP and FFS did not reach the LPL of 39.7 percent. While DHMC performed above the LPL, it did not reach the national HEDIS 2008 Medicaid 50th percentile of 53.8 percent. RMHP was the only health plan to exceed the national HEDIS 2008 Medicaid 50th percentile, but it did not reach the HPL of 67.6 percent.

The Colorado statewide weighted average for 2009 was 35.4 percent and ranked below the LPL of 39.7 percent.

Comprehensive Diabetes Care—LDL-C Screening Performed

Low-density lipoprotein (LDL) is a type of lipoprotein that carries cholesterol in the blood. LDL is undesirable because it deposits excess cholesterol in the walls of blood vessels and contributes to atherosclerosis (hardening of the arteries) and heart disease. Therefore, LDL cholesterol is often termed "bad" cholesterol. The test for LDL measures the amount of LDL cholesterol in the blood.

Early detection and treatment of LDL levels in individuals with diabetes can decrease their risk of cardiovascular complications. During 2007, approximately 97 percent of Colorado adults with diabetes reported having their blood cholesterol levels checked within the past five years.[5-26]

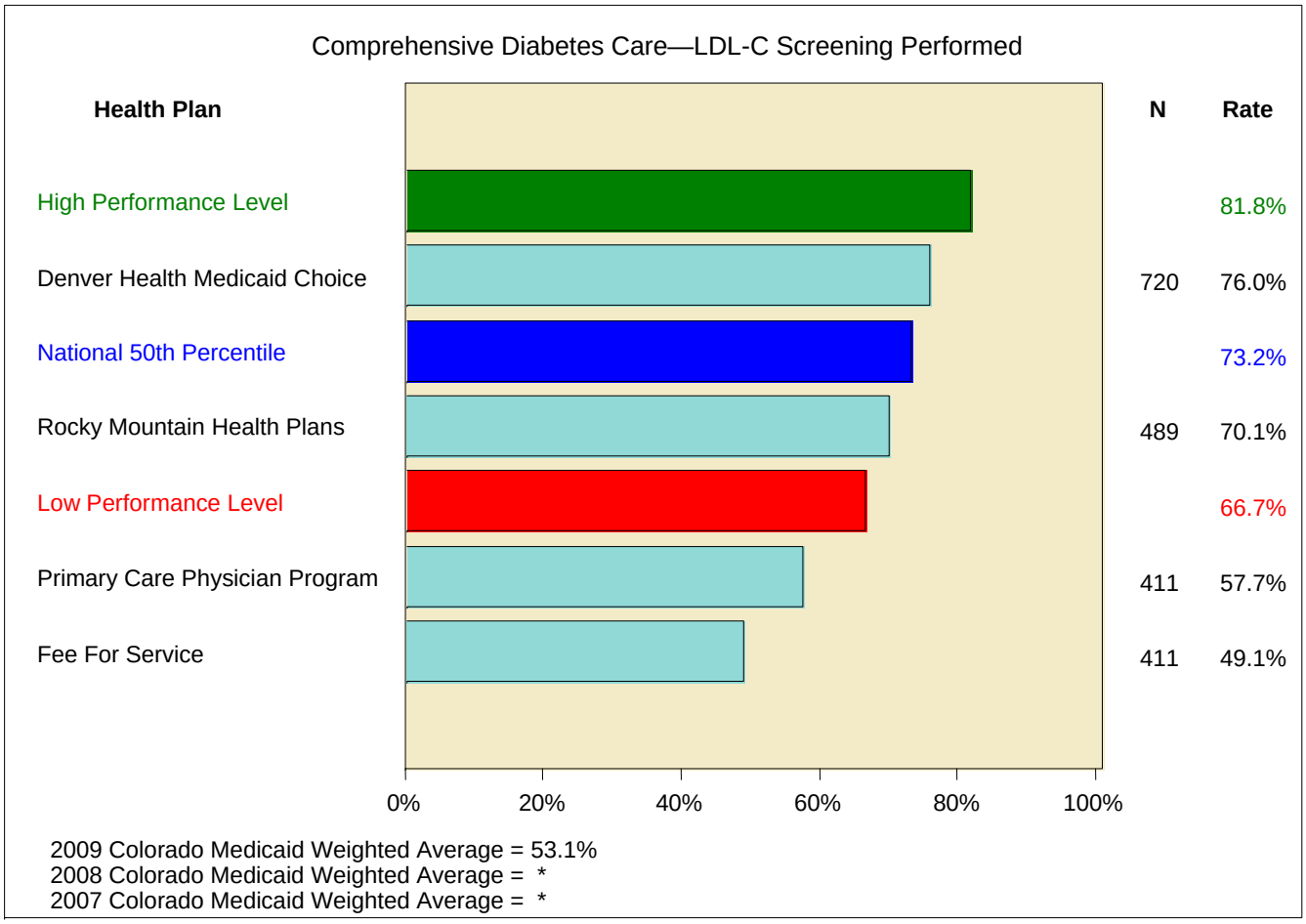
HEDIS Specification: Comprehensive Diabetes Care—LDL-C Screening Performed

The *Comprehensive Diabetes Care—LDL-C Screening Performed* rate reports the percentage of members with diabetes (Type 1 and Type 2) who were 18 to 75 years of age, who were continuously enrolled during the measurement year, and who had an LDL-C test during the measurement year or the year prior to the measurement year, as determined by claims/encounters or automated laboratory data or medical record review.

[5-26] Ibid.

Health Plan Ranking: Comprehensive Diabetes Care—LDL-C Screening Performed

Figure 5-7—Colorado Medicaid HEDIS 2009 Health Plan Ranking:
Comprehensive Diabetes Care—LDL-C Screening Performed



Note: *This is the first year the State is reporting this measure; therefore, no year-to-year comparisons are displayed.*

PCPP and FFS both performed below the LPL of 66.7 percent. While RMHP performed above the LPL, it did not perform above the national HEDIS 2008 Medicaid 50th percentile of 73.2 percent. While DHMC performed above the national HEDIS 2008 Medicaid 50th percentile, it did not reach the HPL of 81.8 percent.

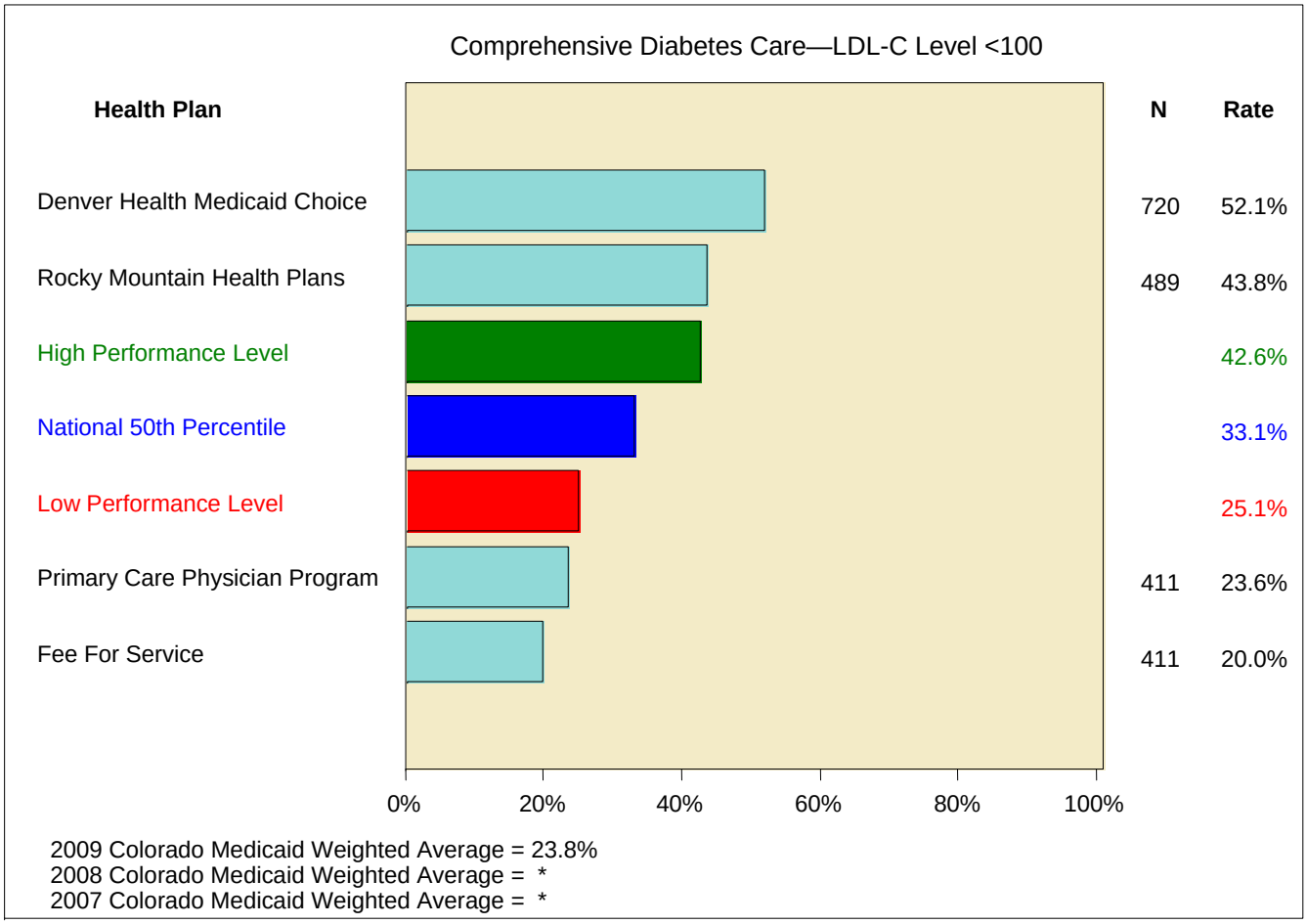
The Colorado statewide weighted average for 2009 was 53.1 percent, falling below the LPL of 66.7 percent.

HEDIS Specification: Comprehensive Diabetes Care—LDL-C Control (<100 mg/dL)

The rate for *Comprehensive Diabetes Care—LDL-C Control (<100 mg/dL)* calculates the percentage of members with diabetes (Type 1 and Type 2) who were 18 to 75 years of age, who were continuously enrolled during the measurement year, and whose most recent LDL-C test (performed during the measurement year or the year prior to the measurement year) indicated an LDL-C level of less than 100 mg/dL, as documented through automated laboratory data and/or medical record review.

Health Plan Ranking: Comprehensive Diabetes Care—LDL-C Control (<100 mg/dL)

Figure 5-8—Colorado Medicaid HEDIS 2009 Health Plan Ranking: *Comprehensive Diabetes Care—LDL-C Control (<100 mg/dL)*



Note: *This is the first year the State is reporting this measure; therefore, no year-to-year comparisons are displayed.*

PCPP and FFS did not perform above the LPL of 25.1 percent, while DHMC and RMHP both performed above the HPL of 42.6 percent.

The Colorado statewide weighted average for 2009 was 23.8 percent and ranked below the LPL of 25.1 percent.

Comprehensive Diabetes Care—Medical Attention for Nephropathy

Diabetes is the leading cause of end-stage renal disease (ESRD), a condition that can only be treated by dialysis or a kidney transplant. In the United States almost 180,000 people live with kidney failure as a result of diabetes, and in 2005, health care for patients with kidney failure cost the United States almost $32 billion.[5-27] Diabetic nephropathy is a progressive kidney disease that takes years to develop and progress. Usually 15 to 25 years will pass after the onset of diabetes before kidney failure occurs. In 2007, 50 percent of Colorado residents who had been newly diagnosed with ESRD had a primary diagnosis of diabetes.[5-28]

HEDIS Specification: Comprehensive Diabetes Care—Medical Attention for Nephropathy

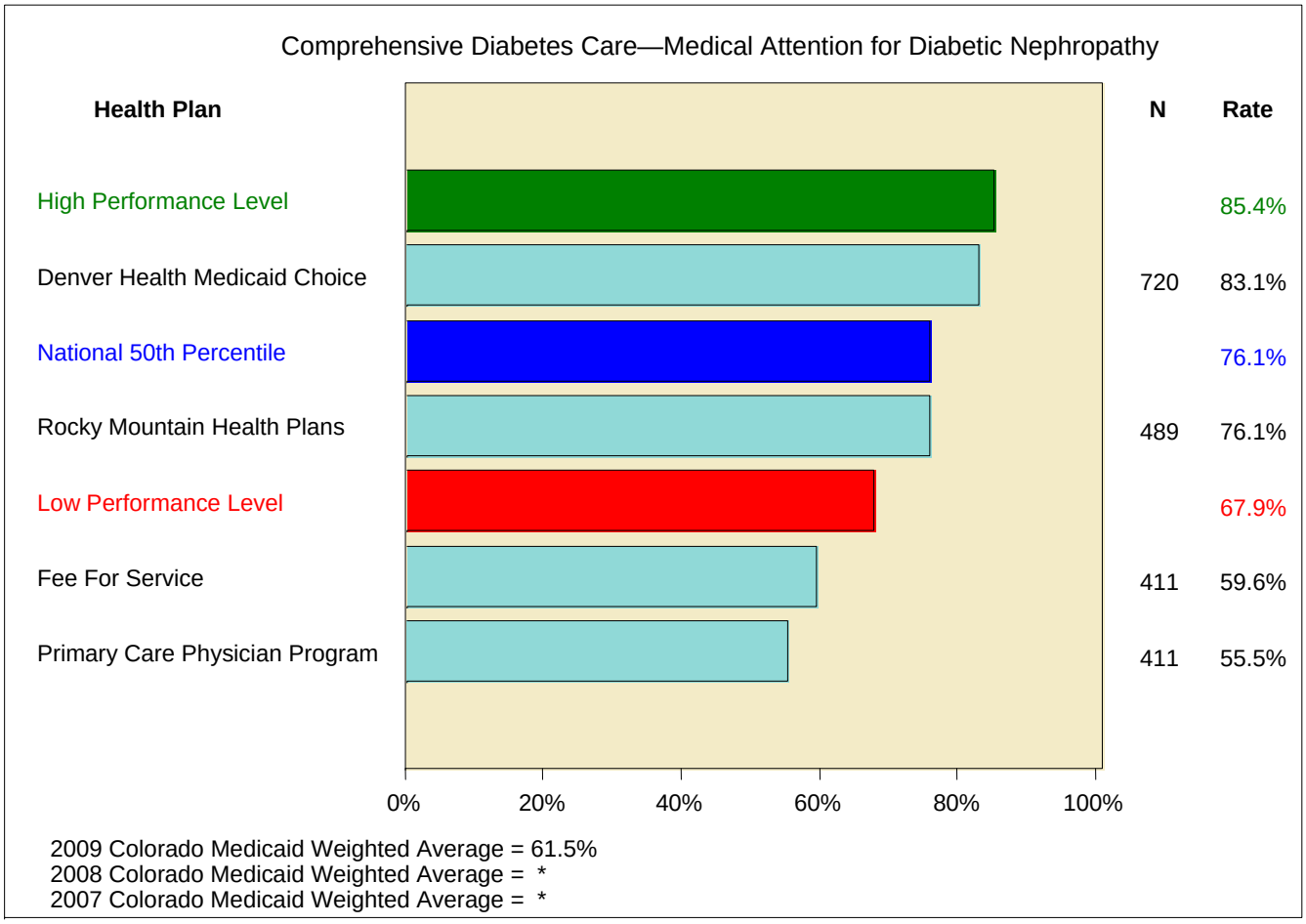
The *Comprehensive Diabetes Care—Medical Attention for Nephropath*y rate is intended to assess whether diabetic patients are being monitored for nephropathy. It reports the percentage of members with diabetes (Type 1 and Type 2) who were 18 to 75 years of age, who were continuously enrolled during the measurement year, and who were screened for nephropathy or received treatment for nephropathy, as documented through either administrative data or medical record review. The rate includes patients who have been screened for nephropathy, or who already have evidence of nephropathy, as demonstrated by medical attention for nephropathy or a positive microalbuminuria test, or evidence of angiotensin-converting enzyme (ACE) inhibitor or angiotensin receptor blocker (ARB) therapy.

[5-27] National Kidney and Urologic Diseases Information Clearinghouse. Kidney Disease of Diabetes. Available at: http://kidney.niddk.nih.gov/kudiseases/pubs/kdd/index.htm. Accessed on September 15, 2009.

[5-28] Colorado Diabetes Prevention and Control Program. The Burden of Diabetes in Colorado. Available at: http://www.cdphe.state.co.us/pp/diabetes/reports/TheBurdenofDiabetesinCO.pdf. Accessed on September 15, 2009.

Health Plan Ranking: Comprehensive Diabetes Care—Medical Attention for Nephropathy

Figure 5-9—Colorado Medicaid HEDIS 2009 Health Plan Ranking:
Comprehensive Diabetes Care—Medical Attention for Diabetic Nephropathy



Note: *This is the first year the State is reporting this measure; therefore, no year-to-year comparisons are displayed.*

FFS and PCPP both performed below the LPL of 67.9 percent. RMHP performed at the national HEDIS 2008 Medicaid 50th percentile of 76.1 percent. DHMC performed above the national HEDIS 2008 Medicaid 50th percentile, but did not reach the HPL of 85.4 percent.

The Colorado statewide weighted average for 2009 was 61.5 percent and ranked below the LPL of 67.9 percent.

Comprehensive Diabetes Care—Blood Pressure Control

High blood pressure is a significant risk factor for the development and worsening of many complications of diabetes, such as nephropathy and retinopathy. The ADA and the National Institutes of Health (NIH) recommend that people with diabetes maintain a blood pressure of less than 130/80 mm Hg.[5-29] From 2003 to 2004, 75 percent of adults with self-reported diabetes had a blood pressure greater than or equal to this level, or took prescription medication for hypertension.[5-30] When blood pressure is under control, individuals with diabetes benefit greatly. For every 10 millimeters of mercury reduction in systolic blood pressure, there is a subsequent reduction in diabetic complications by 12 percent.[5-31] According to the CDC, 64.8 percent of Colorado adults with diabetes also had hypertension in 2007.[5-32]

The *Comprehensive Diabetes Care—Blood Pressure Control* measure is presented in two rates:

- *Blood Pressure Control <130/80 mm Hg*
- *Blood Pressure Control <140/90 mm Hg*

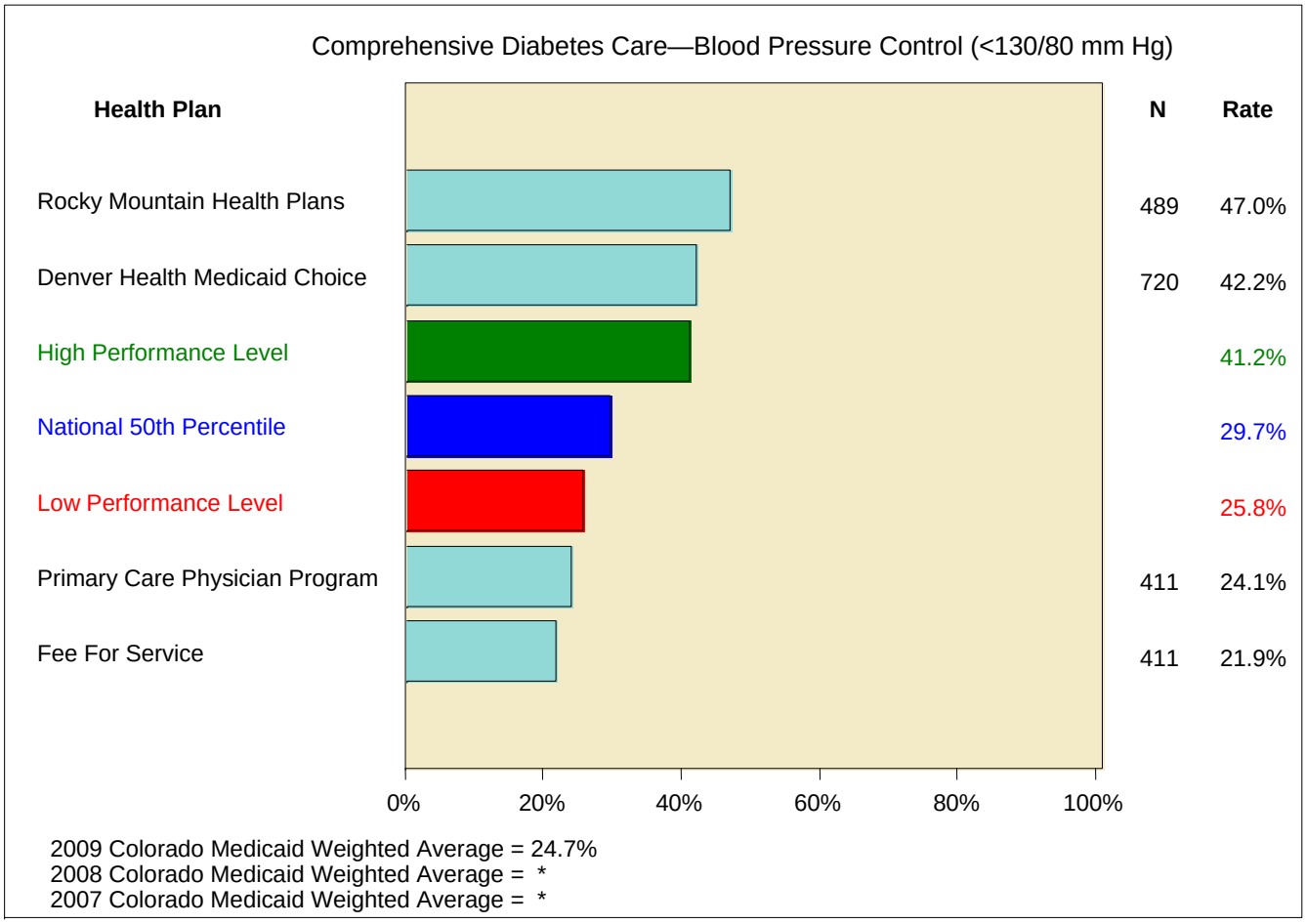
HEDIS Specification: Comprehensive Diabetes Care—Blood Pressure Control (<130/80 mm Hg)

The *Comprehensive Diabetes Care—Blood Pressure Control (<130/80 mm Hg)* rate is intended to assess whether diabetic patients' blood pressure is being monitored. It reports the percentage of members with diabetes (Type 1 and Type 2), who were 18 to 75 years of age, who were continuously enrolled during the measurement year, and who had a blood pressure reading of less than 130/80 mm Hg.

[5-29] American Diabetes Association. Treating High Blood Pressure in People With Diabetes. Available at: http://www.diabetes.org/type-1-diabetes/well-being/treating-high-bp.jsp. Accessed on September 15, 2009.
[5-30] National Institute of Diabetes and Digestive and Kidney Diseases. National Diabetes Statistics, 2007 fact sheet. Available at: http://diabetes.niddk.nih.gov/DM/PUBS/statistics/. Accessed on September 15, 2009.
[5-31] National Committee for Quality Assurance. The State of Health Care Quality, 2008. Available at: http://www.ncqa.org/Portals/0/Newsroom/SOHC/SOHC_08.pdf. Accessed on July 14, 2009.
[5-32] Centers for Disease Control and Prevention. National Diabetes Surveillance System. Available at: http://apps.nccd.cdc.gov/ddtstrs/Index.aspx?stateId=8&state=Colorado&cat=riskfactors&Data=data&view=TO&id=23&trend=hypertenxion. Accessed on September 15, 2009.

Health Plan Ranking: Comprehensive Diabetes Care—Blood Pressure Control (<130/80 mm Hg)

Figure 5-10—Colorado Medicaid HEDIS 2009 Health Plan Ranking:
Comprehensive Diabetes Care—Blood Pressure Control (<130/80 mm Hg)



Note: *This is the first year the State is reporting this measure; therefore, no year-to-year comparisons are displayed.*

PCPP and FFS both performed below the LPL of 25.8 percent, while both DHMC and RMHP performed above the HPL of 41.2 percent.

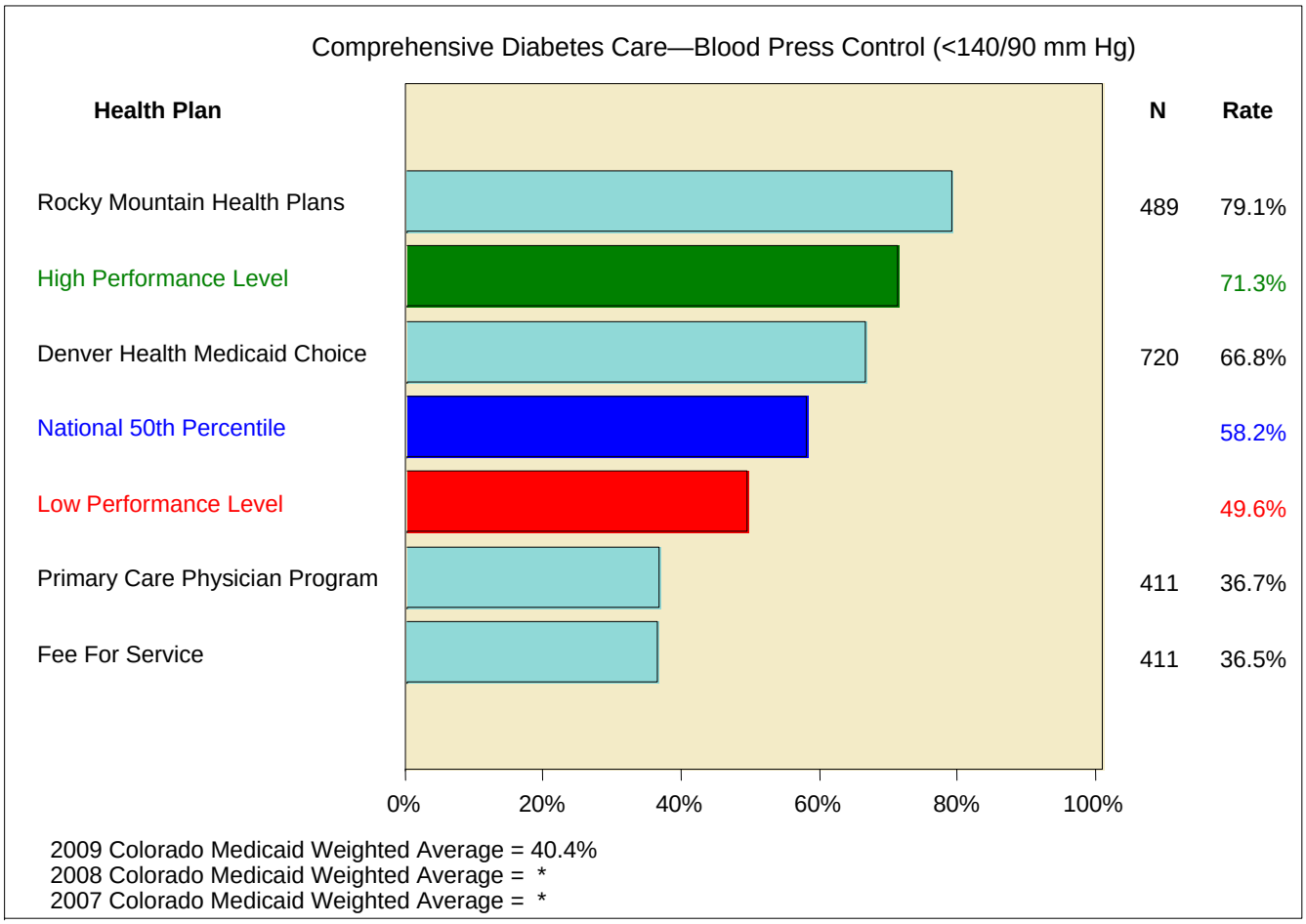
The Colorado statewide weighted average for 2009 was 24.7 percent and fell below the LPL of 25.8 percent.

HEDIS Specification: Comprehensive Diabetes Care—Blood Pressure Control (<140/90 mm Hg)

The *Comprehensive Diabetes Care—Blood Pressure Control (<140/90 mm Hg)* rate is intended to assess whether diabetic patients' blood pressure is being monitored. It reports the percentage of members with diabetes (Type 1 and Type 2) who were 18 to 75 years of age, who were continuously enrolled during the measurement year, and who had a blood pressure reading of less than 140/90 mm Hg.

Health Plan Ranking: Comprehensive Diabetes Care—Blood Pressure Control (<140/90 mm Hg)

Figure 5-11—Colorado Medicaid HEDIS 2009 Health Plan Ranking:
Comprehensive Diabetes Care—Blood Pressure Control (<140/90 mm Hg)



Note: *This is the first year the State is reporting this measure; therefore, no year-to-year comparisons are displayed.*

PCPP and FFS both performed below the LPL of 49.6 percent. While DHMC performed above the LPL and the national HEDIS 2008 Medicaid 50th percentile of 58.2 percent, it did not reach the HPL. RMHP was the only health plan to exceed the HPL of 71.3 percent.

The Colorado statewide weighted average for 2009 was 40.4 percent and fell below the LPL of 49.6 percent.

Use of Appropriate Medications for People With Asthma

In 2006 asthma accounted for more than 10.6 million visits to office-based physicians. Additionally, 444,000 hospital discharges occurred with asthma as the first-listed diagnosis.[5-33] Asthma is one of the most common chronic conditions in U.S. children and adults, affecting almost 7 million children and 16 million adults as of 2007.[5-34] According to the American Lung Association, the estimated lifetime prevalence rate for asthma among adults in Colorado in 2007 was 12.9 percent, which was slightly lower than the overall U.S. rate of 13.1 percent.[5-35]

HEDIS Specification: Use of Appropriate Medications for People With Asthma

The measure is reported using the administrative method only. The measure includes rates reported for three age groups: 5 to 9 years of age, 10 to 17 years of age, and 18 to 56 years of age, as well as a combined rate.

In addition to enrollment data, claims are used to identify the denominator. Members are identified for each denominator based on age and a two-year continuous enrollment criterion (the measurement year and the year prior to the measurement year). In addition, this measure requires that members be identified as having persistent asthma. HEDIS specifications define persistent asthma as having any of the following events within the current and prior measurement year:

1. At least four asthma medication dispensing events
2. At least one emergency department visit with a principal diagnosis of asthma
3. At least one acute inpatient discharge with a principal diagnosis of asthma
4. At least four outpatient visits with a corresponding diagnosis of asthma and at least two asthma medication dispensing events.

This measure evaluates whether members with persistent asthma are being prescribed medications acceptable as primary therapy for long-term control of asthma during the measurement year. There are a number of acceptable therapies for people with persistent asthma, although the best available evidence demonstrates that inhaled corticosteroids are the preferred primary therapy. For people with moderate to severe asthma, inhaled corticosteroids are the only recommended primary therapy. While long-acting beta-agonists are a preferred adjunct therapy for long-term control of moderate to severe asthma, they are recommended as an add-on therapy with inhaled corticosteroids. Therefore, they should not be included in this numerator.[5-36]

For this particular measure, NCQA requires that rates be calculated using the administrative method, so a data collection analysis is not relevant.

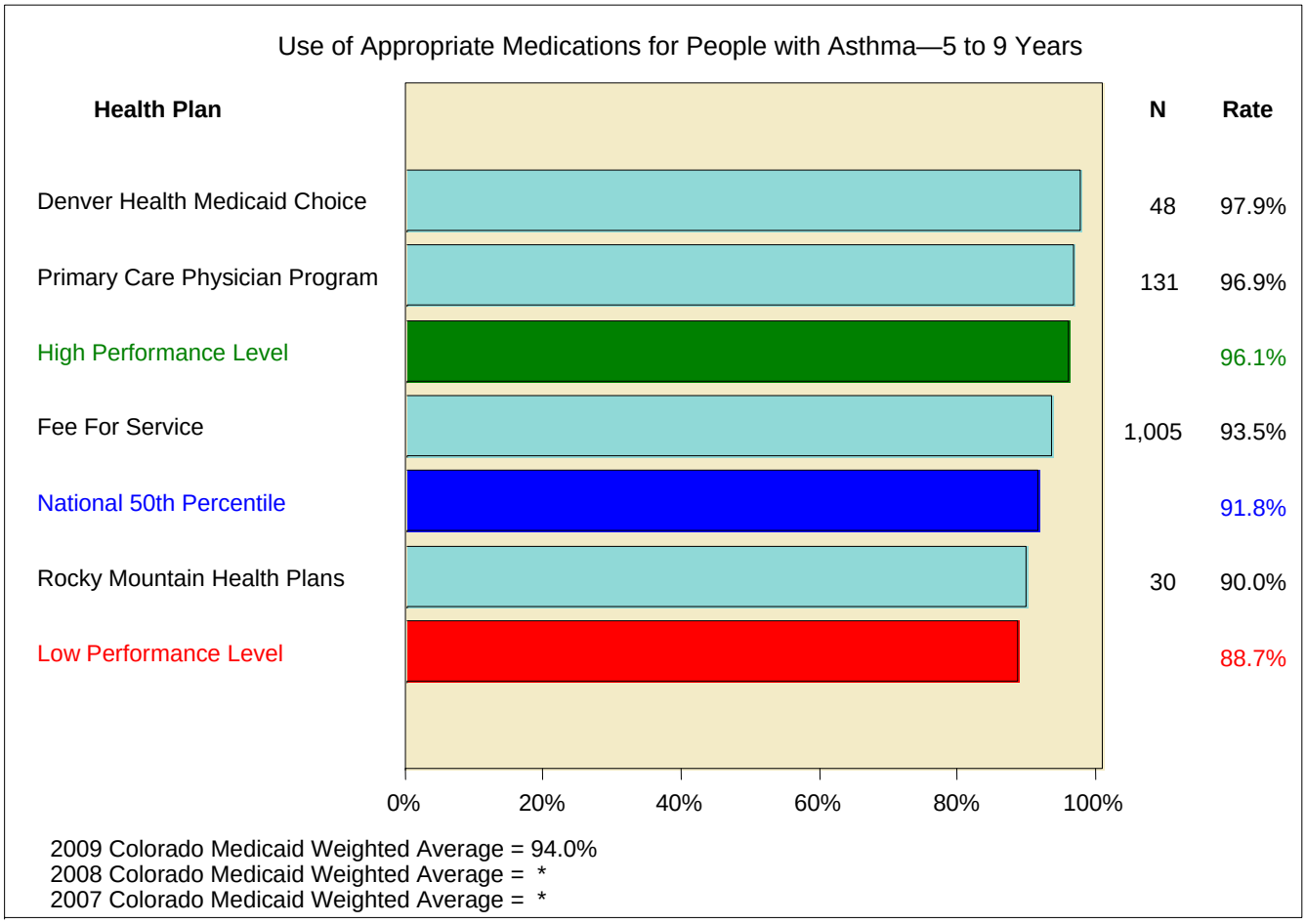
[5-33] Centers for Disease Control and Prevention. FastStats: Asthma. Available at: http://www.cdc.gov/nchs/FASTATS/asthma.htm. Accessed on September 1, 2009.
[5-34] Ibid.
[5-35] The American Lung Association. Trends in Asthma Morbidity and Mortality. Available at: http://www.lungusa.org/site/pp.asp?c=dvLUK9O0E&b=33347. Accessed on September 9, 2009.
[5-36] National Committee for Quality Assurance. *HEDIS 2007 Technical Specifications.* Volume 2. Washington, DC: National Committee for Quality Assurance; 2006.

Use of Appropriate Medications for People With Asthma—Ages 5 to 9 Years

The *Use of Appropriate Medications for People With Asthma—Ages 5 to 9 Years* rate calculates the percentage of members 5 to 9 years of age who had been continuously enrolled for the measurement year and the year prior to the measurement year, who were identified as having persistent asthma as a result of any one of four specified events during the measurement year and the year prior to the measurement year, and who were prescribed medications that were acceptable as primary therapy for long-term asthma control.

Health Plan Ranking: Use of Appropriate Medications for People With Asthma—Ages 5 to 9 Years

Figure 5-12—Colorado Medicaid HEDIS 2009 Health Plan Ranking:
Use of Appropriate Medications for People With Asthma—Ages 5 to 9 Years



Note: *This is the first year the State is reporting this measure; therefore, no year-to-year comparisons are displayed.*

Although every health plan exceeded the LPL of 88.7 percent, only two health plans, PCPP and DHMC, exceeded the national HEDIS 2008 Medicaid 50th percentile of 91.8 percent and the HPL of 96.1 percent. RMHP did not reach the national HEDIS 2008 Medicaid 50th percentile, and while FFS exceeded the national HEDIS 2008 Medicaid 50th percentile, it did not reach the HPL.

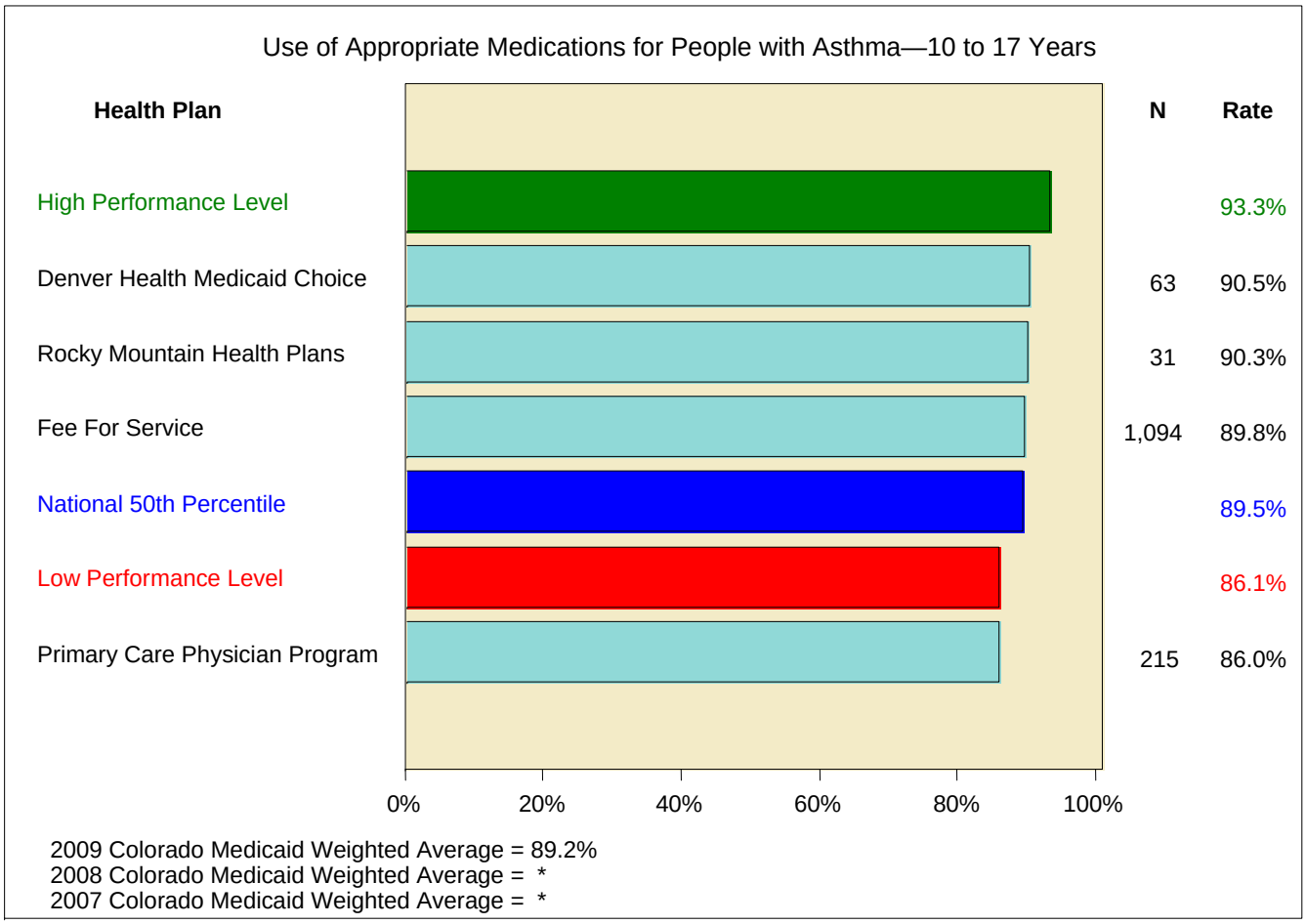
The Colorado statewide weighted average was 94.0 percent. No data were available for comparison since this was the first year that this measure was collected.

Use of Appropriate Medications for People With Asthma—Ages 10 to 17 Years

The rate for *Use of Appropriate Medications for People With Asthma—Ages 10 to 17 Years* calculates the percentage of members 10 through 17 years of age who had been continuously enrolled for the measurement year and the year prior to the measurement year, who were identified as having persistent asthma as a result of any one of four specified events during the measurement year and the year prior to the measurement year, and who were prescribed medications that were acceptable as primary therapy for long-term asthma control.

Health Plan Ranking: Use of Appropriate Medications for People With Asthma—Ages 10 to 17 Years

Figure 5-13—Colorado Medicaid HEDIS 2009 Health Plan Ranking:
Use of Appropriate Medications for People With Asthma—Ages 10 to 17 Years



Note: *This is the first year the State is reporting this measure; therefore, no year-to-year comparisons are displayed.*

PCPP was the only health plan to perform below the LPL of 86.1 percent. The remaining three health plans performed above the national HEDIS 2008 Medicaid 50th percentile of 89.5 percent, but none of them reached the HPL of 93.3 percent.

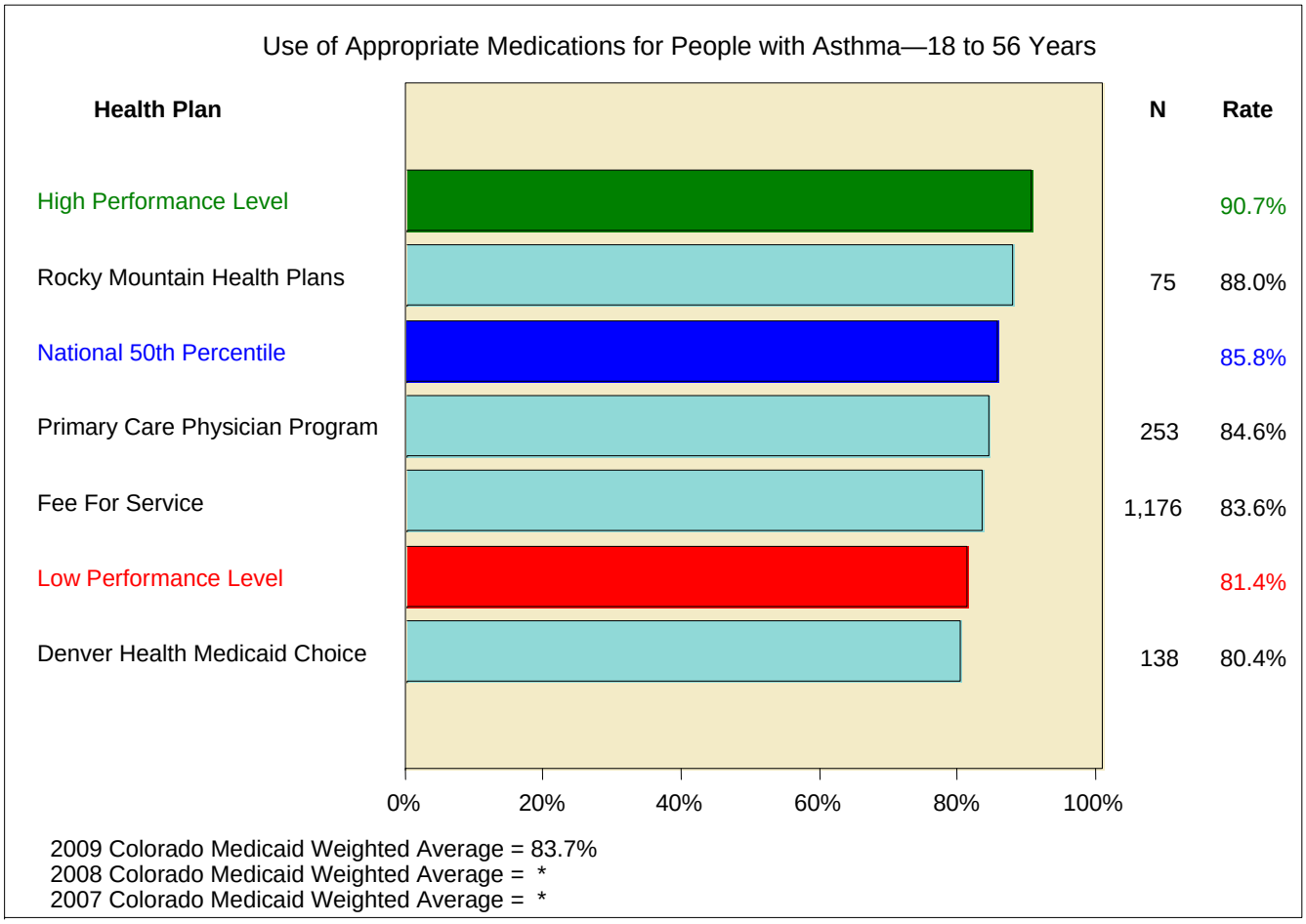
The Colorado statewide weighted average was 89.2 percent. No data were available for comparison since this was the first year the measure was collected.

Use of Appropriate Medications for People With Asthma—Ages 18 to 56 Years

Use of Appropriate Medications for People With Asthma—Ages 18 to 56 Years measures the percentage of members 18 through 56 years of age who had been continuously enrolled for the measurement year and the year prior to the measurement year, who were identified as having persistent asthma as a result of any one of four specified events during the measurement year and the year prior to the measurement year, and who were prescribed medications that were acceptable as primary therapy for long-term asthma control.

Health Plan Ranking: Use of Appropriate Medications for People With Asthma—Ages 18 to 56 Years

Figure 5-14—Colorado Medicaid HEDIS 2009 Health Plan Ranking:
Use of Appropriate Medications for People With Asthma—Ages 18 to 56 Years



Note: *This is the first year the State is reporting this measure; therefore, no year-to-year comparisons are displayed.*

DHMC was the only health plan to perform below the LPL of 81.4 percent. PCPP and FFS performed above the LPL but did not reach the national HEDIS 2008 Medicaid 50th percentile of 85.8 percent. While RMHP exceeded the national HEDIS 2008 Medicaid 50th percentile, it did not reach the HPL of 90.7 percent.

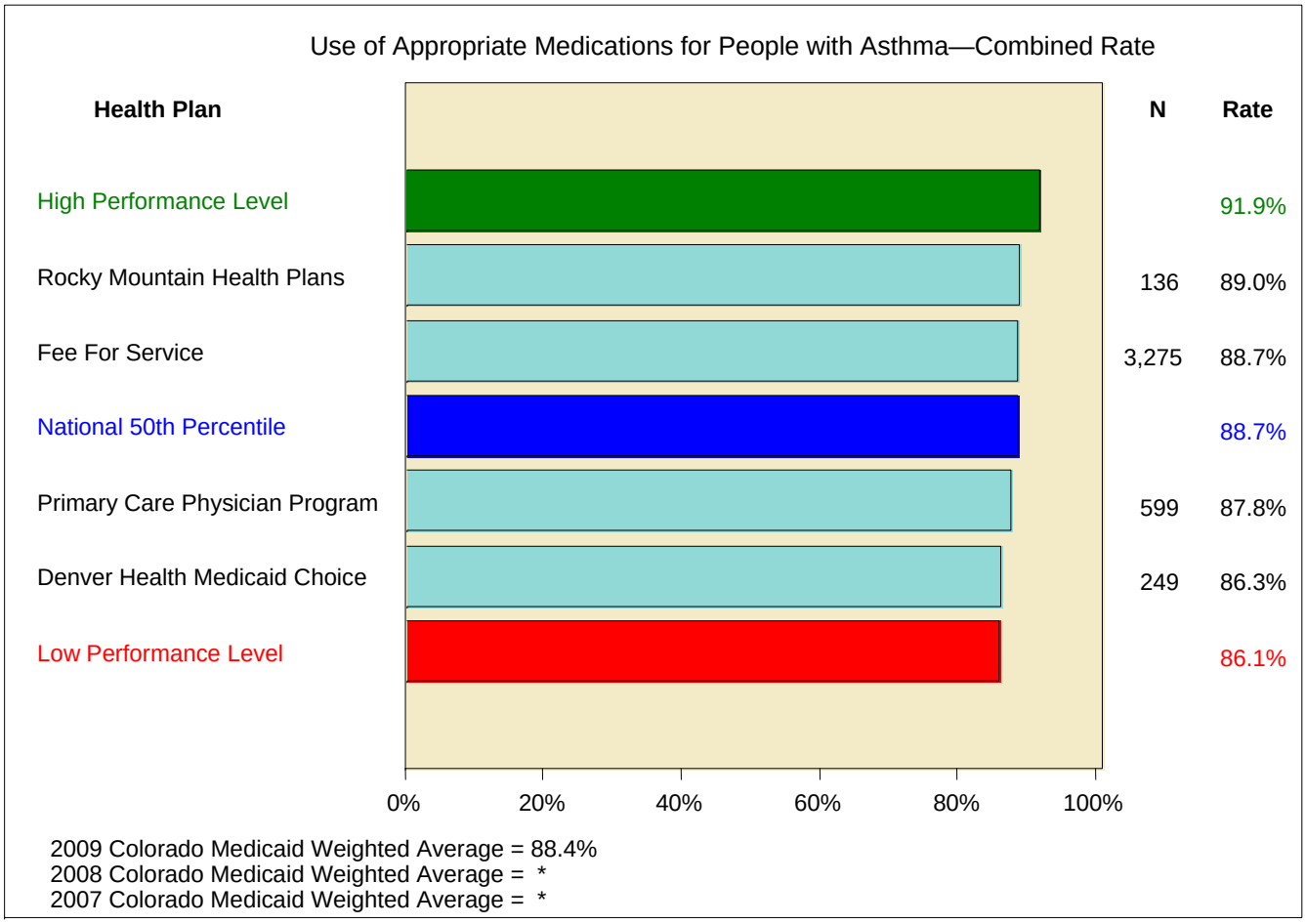
The Colorado statewide weighted average was 83.7 percent. No data were available for comparison since this was the first year the measure was collected.

Use of Appropriate Medications for People With Asthma—Total

The *Use of Appropriate Medications for People With Asthma—Total* calculates the sum of the three age-group numerators divided by the sum of the three denominators.

Health Plan Ranking: Use of Appropriate Medications for People With Asthma—Total

Figure 5-15—Colorado Medicaid HEDIS 2009 Health Plan Ranking:
Use of Appropriate Medications for People With Asthma—Total



Note: *This is the first year the State is reporting this measure; therefore, no year-to-year comparisons are displayed.*

Although all of the health plans performed above the LPL of 86.1 percent, none of them reached the HPL of 91.9 percent. PCPP and DHMC did not reach the national HEDIS 2008 Medicaid 50th percentile of 88.7 percent, while the FFS rate was the same as the national HEDIS 2008 Medicaid 50th percentile. RMHP exceeded the national HEDIS 2008 Medicaid 50th percentile, but did not reach the HPL.

The Colorado statewide weighted average for 2009 was 88.4 percent and ranked above the LPL of 86.1 percent.

Annual Monitoring for Patients on Persistent Medications

Half of all unintentional overdoses that result in an emergency room visit originate from medications that commonly require monitoring.[5-37] When clinicians regularly monitor patients' medications, they can adjust dosages as needed to better prevent adverse events. However, as many as half of all patients on persistent medications carrying a high risk of toxicity receive no drug monitoring.[5-38] In the United States, the cost of treating problems caused by the misuse of medications in ambulatory settings is more than $85 billion per year.[5-39]

HEDIS Specification—Annual Monitoring for Patients on Persistent Medications

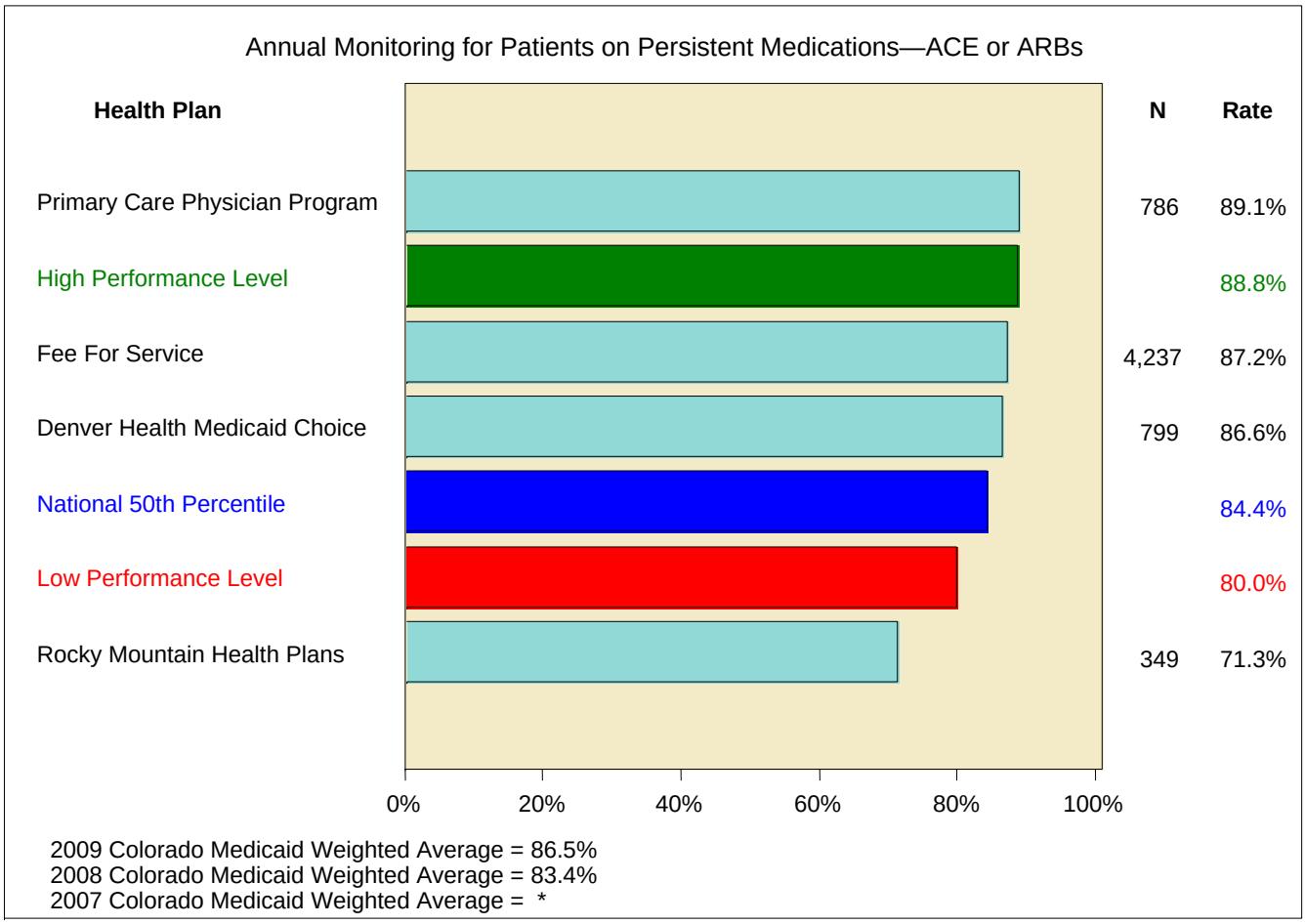
The *Annual Monitoring for Patients on Persistent Medications* measure assesses the percentage of members 18 years of age and older who received at least a 180-day supply of ambulatory medication therapy for a select therapeutic agent during the measurement year and at least one therapeutic monitoring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

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

[5-37] National Committee for Quality Assurance. The State of Health Care Quality, 2008. Available at: http://www.ncqa.org/Portals/0/Newsroom/SOHC/SOHC_08.pdf. Accessed on September 9, 2009.
[5-38] Ibid.
[5-39] Ibid.

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

Figure 5-16—Colorado Medicaid HEDIS 2009 Health Plan Ranking:
Annual Monitoring for Patients on Persistent Medications—ACE Inhibitors or ARBs



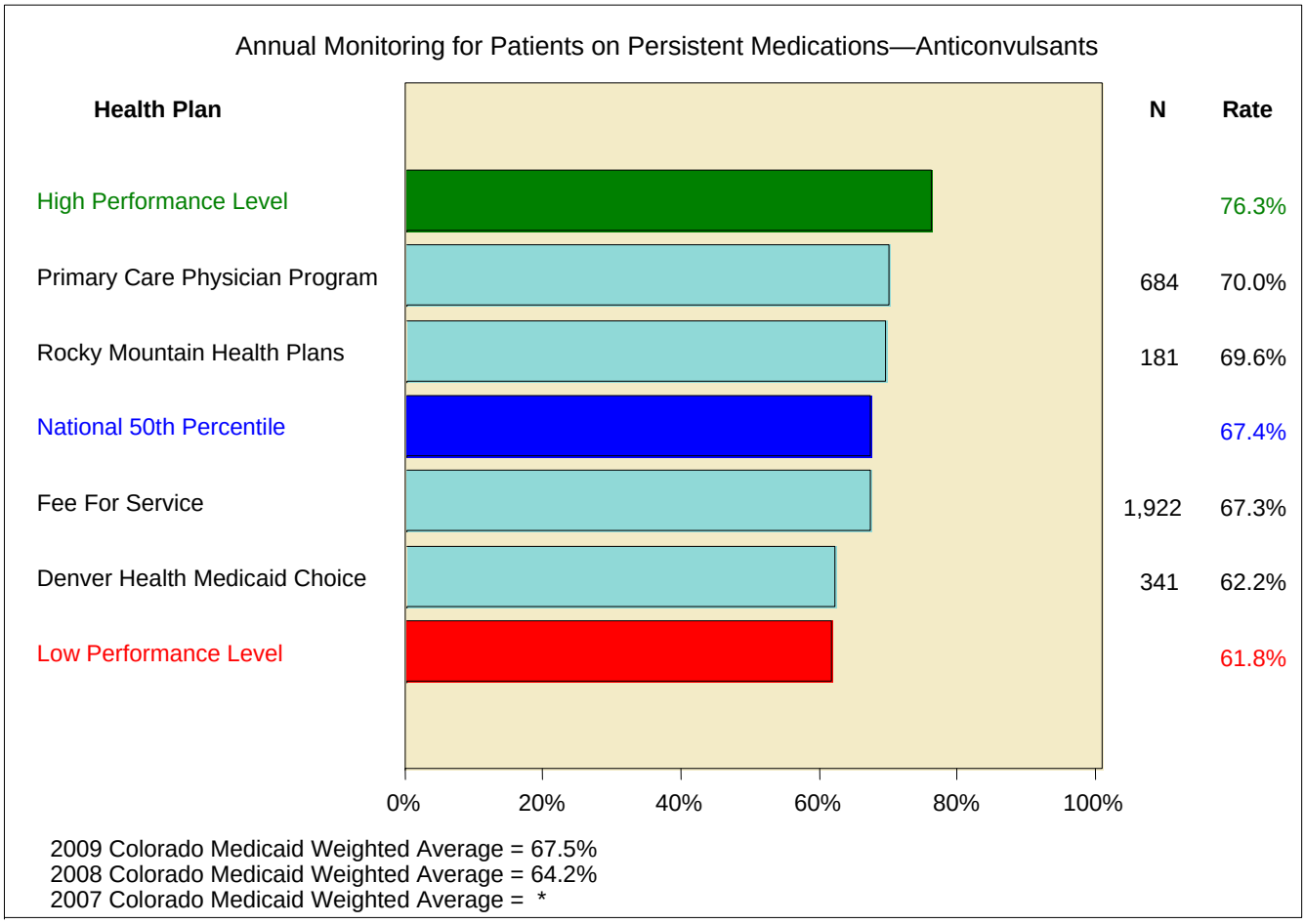
***Note:** The 2007 weighted average was not available since the measure was not reported during measurement year (MY) 2007.*

RMHP was the only health plan to perform below the LPL of 80.0 percent, while PCPP was the only health plan to perform above the HPL of 88.8 percent. DHMC and FFS both performed above the national HEDIS 2008 Medicaid 50th percentile of 84.4 percent.

The Colorado statewide weighted average increased by 3.1 percentage points, from 83.4 percent in 2008 to 86.5 percent in 2009, although this increase was not statistically significant. The rate this year ranks above the national 50th percentile.

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

Figure 5-17—Colorado Medicaid HEDIS 2009 Health Plan Ranking:
Annual Monitoring for Patients on Persistent Medications—Anticonvulsants



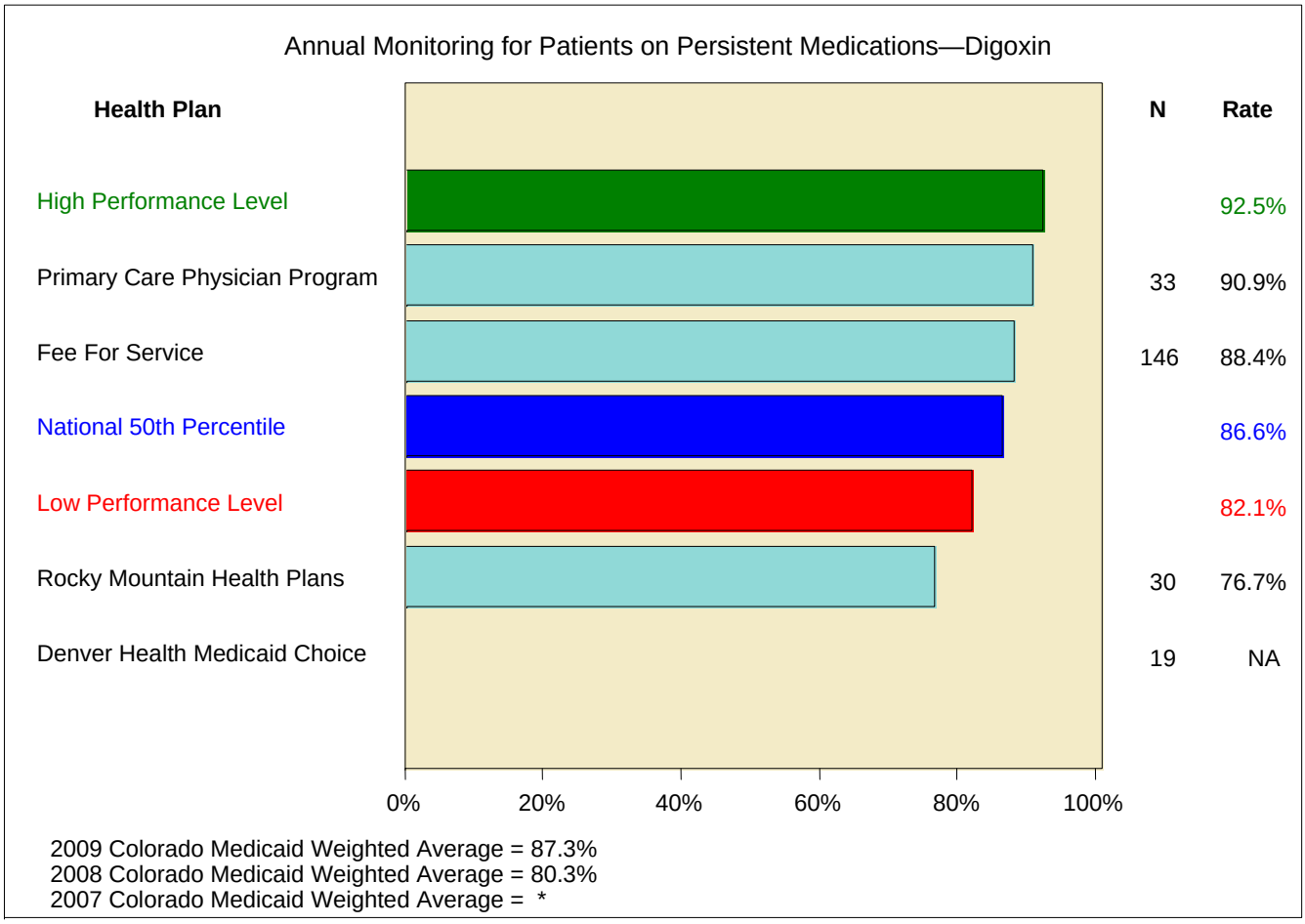
***Note:** The 2007 weighted average was not available since the measure was not reported during MY 2007.*

FFS and DHMC did not reach the national HEDIS 2008 Medicaid 50th percentile of 67.4 percent, While PCPP and RMHP exceeded the national HEDIS 2008 Medicaid 50th percentile, they did not reach the HPL of 76.3 percent.

The Colorado statewide weighted average increased by 3.3 percentage points, from 64.2 percent in 2008 to 67.5 percent in 2009. Although this increase was not statistically significant, the 2009 rate ranked just above the HEDIS 2008 Medicaid 50th percentile.

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

Figure 5-18—Colorado Medicaid HEDIS 2009 Health Plan Ranking:
Annual Monitoring for Patients on Persistent Medications—Digoxin



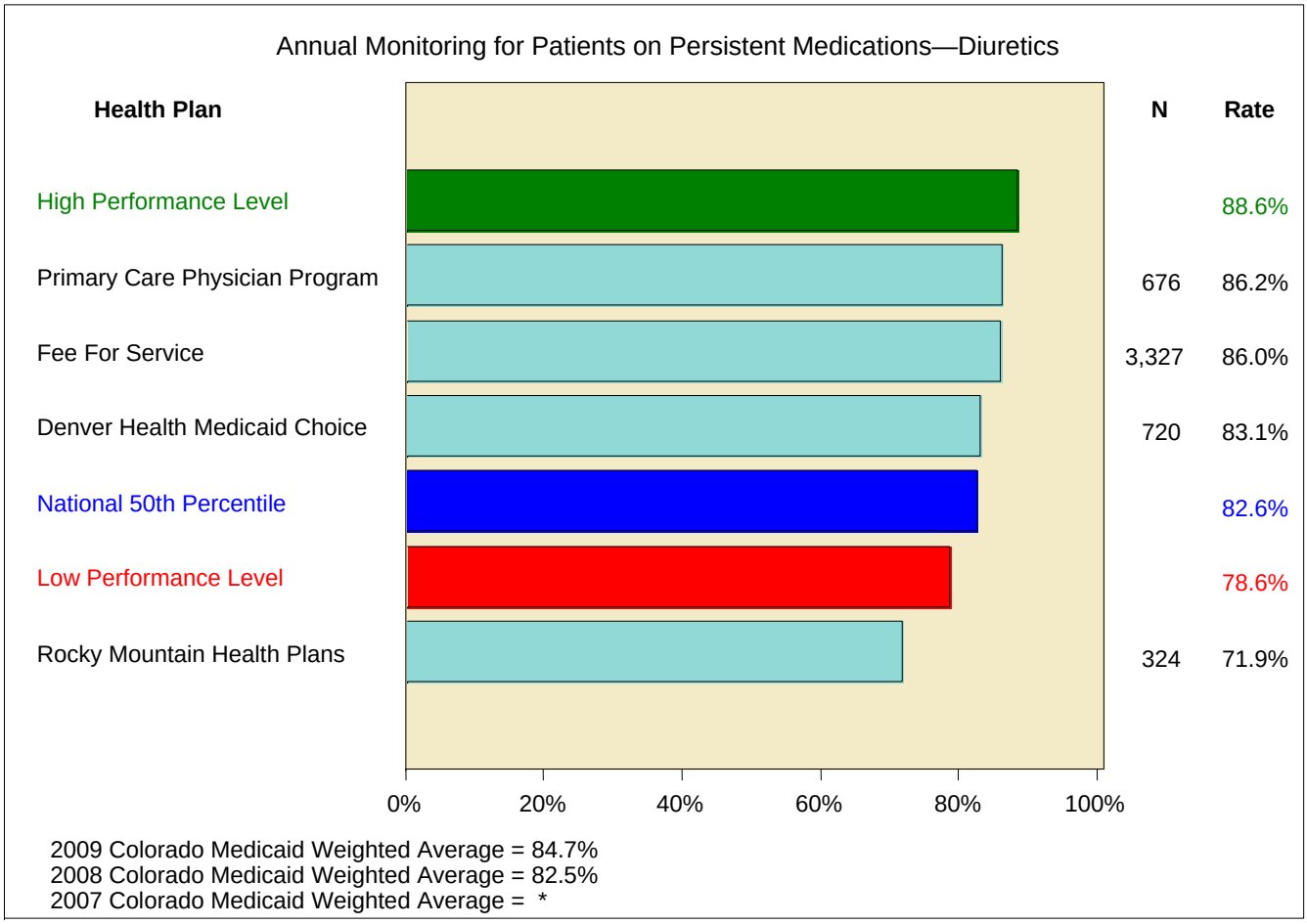
***Note:** The 2007 weighted average was not available since the measure was not reported during MY 2007.*

DHMC's population was too small for this measure. Therefore, while the measure was reportable, the rate was not applicable. RMHP performed below the LPL of 82.1 percent, while PCPP and FFS exceeded the Medicaid 50th percentile of 86.6 percent.

The Colorado statewide weighted average increased by 7.0 percentage points, from 80.3 percent in 2008 to 87.3 percent in 2009, ranking above the national Medicaid 50th percentile of 86.6 percent.

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

Figure 5-19—Colorado Medicaid HEDIS 2009 Health Plan Ranking:
Annual Monitoring for Patients on Persistent Medications—Diuretics



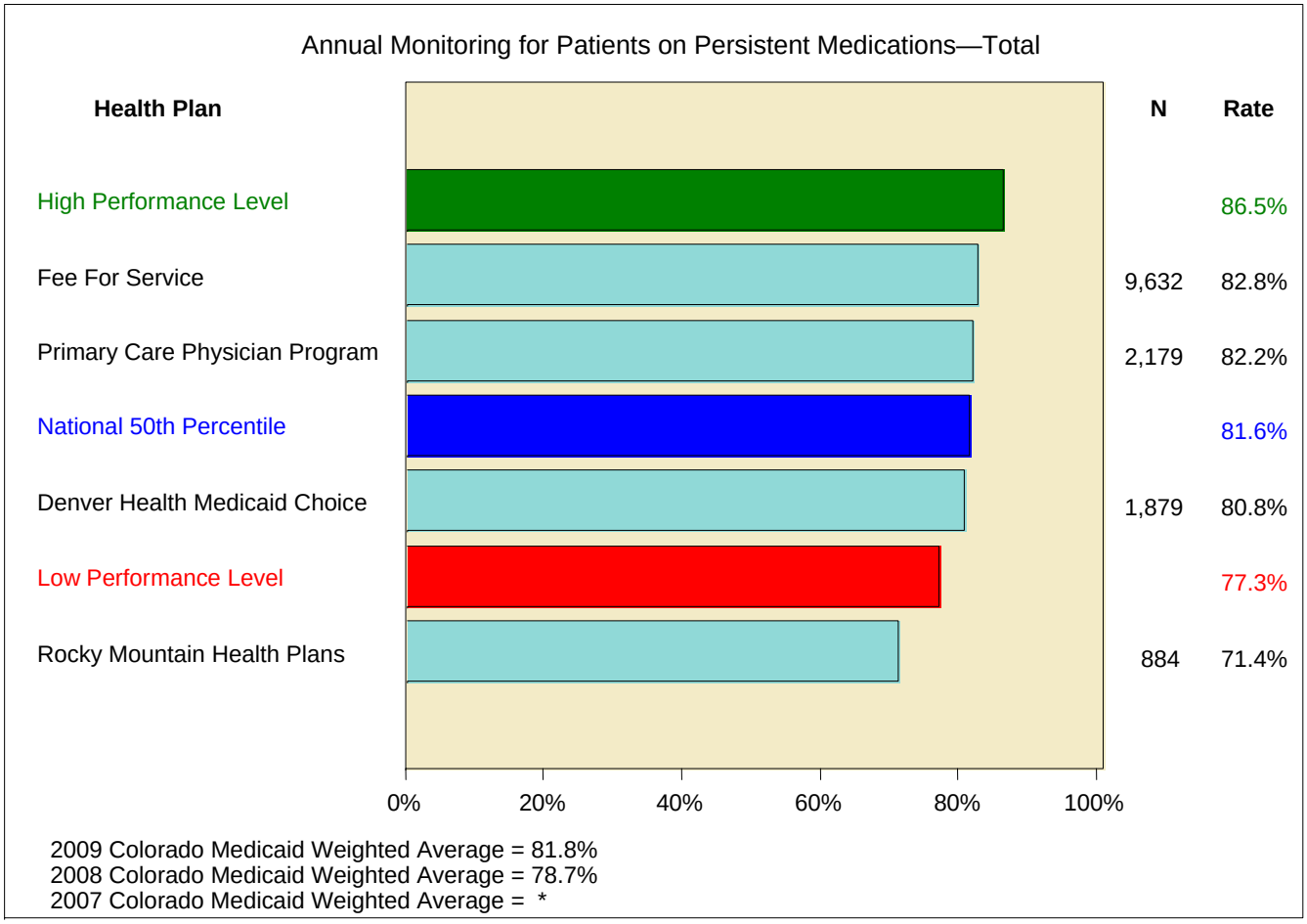
***Note:** The 2007 weighted average was not available since the measure was not reported during MY 2007.*

RMHP performed below the LPL of 78.6 percent, while PCPP, FFS, and DHMC all exceeded the national HEDIS 2008 Medicaid 50th percentile of 82.6 percent.

The Colorado statewide weighted average increased by 2.2 percentage points, from 82.5 percent in 2008 to 84.7 percent in 2009, although this increase was not statistically significant. The rate ranked above the national HEDIS 2008 Medicaid 50th percentile.

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

Figure 5-20—Colorado Medicaid HEDIS 2009 Health Plan Ranking:
Annual Monitoring for Patients on Persistent Medications—Total



***Note:** The 2007 weighted average was not available since the measure was not reported during MY 2007.*

RMHP performed below the LPL of 77.3 percent. While DHMC performed above the LPL, it did not reach the national HEDIS 2008 Medicaid 50th percentile of 81.6 percent. FFS and PCPP exceeded the national HEDIS 2008 Medicaid 50th percentile, but they did not reach the HPL of 86.5 percent.

The Colorado statewide weighted average increased by 3.1 percentage points, from 78.7 percent in 2008 to 81.8 percent in 2009, ranking just above the HEDIS 2008 Medicaid 50th percentile.

Living With Illness Findings and Recommendations

Two new measures were added to the Living With Illness dimension that the Colorado Medicaid health plans reported this year, representing an additional 13 distinct rates. Like last year, Colorado's performance for this dimension ranged from below average to above average, and performance between the health plans was varied across the measures. This year, DHMC was the highest performer for the *Cholesterol Management for Patients With Cardiovascular Conditions* measure. DHMC and RMHP were the top performers for the *Comprehensive Diabetes Care* measures. For the *Use of Appropriate Medications for People With Asthma* measure, DHMC had the best performance for the two younger age cohorts (*Ages 5 to 9 Years* and *Ages 10 to 17 Years).* RMHP had the best performance among the other two cohorts (*Ages 18 to 56 Years* and the *Total* submeasure). PCPP and FFS were the top performers for *Annual Monitoring for Patients on Persistent Medications—ACE Inhibitors or ARBs, Digoxin, Diuretics,* and the *Total.*

The Colorado weighted average for *Cholesterol Management for Patients With Cardiovascular Conditions—LDL-C Screening* was negatively impacted by the decreases experienced by the FFS and PCPP populations. The weighted average dropped by 12.5 percentage points from 2008 to 2009. The Colorado weighted average for the *Cholesterol Management for Patients With Cardiovascular Conditions—LDL-C Level <100 mg/dL* was relatively stable compared to last year, with a slight decrease of 1.4 percentage points.

This was the first year the Colorado Medicaid health plans reported the *Comprehensive Diabetes Care* measure for this report; therefore, no year-to-year comparisons were made. For the diabetes care measures that the health plans were required to report, all of the Colorado Medicaid weighted averages performed below the LPL. *Comprehensive Diabetes Care—HbA1c Control (<8.0 percent)* was a new measure this year; therefore, audit means and percentiles were not available to establish performance levels for comparisons. The Colorado Medicaid weighted average for this measure was 29.9 percent.

For *Use of Appropriate Medications for People With Asthma—Total* (which encompasses all of the age cohorts for this measure), the Colorado Medicaid weighted average performed above the LPL.

This is the second year the Colorado Medicaid health plans reported rates for the *Annual Monitoring of Patients on Persistent Medications* measure. This measure is reported for four individual medication rates and a total rate. Performance among the health plans this year ranged from below the LPL to above the HPL. The Colorado Medicaid weighted averages ranked above the national HEDIS Medicaid 50th percentile across all of the medication indicators, including the total, representing improved performance compared to last year and good performance compared to other health plans nationwide. Last year, the Colorado weighted averages for two of the medication rates performed slightly above the national HEDIS Medicaid 50th percentile, and two rates performed below the national 50th percentile.

The Living With Illness measures typically rely on data received from outside sources or vendors. For instance, lab data are essential to both the *Cholesterol Management for Patients With Cardiovascular Conditions* and *Comprehensive Diabetes Care* measures in this dimension, and pharmacy data are necessary to accurately calculate the *Appropriate Medications for People With*

Asthma and *Annual Monitoring of Patients on Persistent Medications* measures. The more complete the data are from these vendors, the more accurate the rates are for these measures. Improvement in the completeness of lab data by acquiring lab results can alleviate the need for costly medical record review. The health plans should continue working with their vendors to ensure that all data are captured for HEDIS reporting purposes.

As mentioned in previous years, health plans need to be sure that their providers are informed regarding current standards of practice for their field of service. NCQA annually updates the specifications for HEDIS measures, and providers should be aware of these updates and changes so that their documentation supports the information necessary for HEDIS calculations.

Steps toward improving performance in the management of living with chronic illnesses include establishing a medical home and offering patient-centered care, which are often basic approaches to managing members with chronic illnesses. The medical home model allows for continuity of care and eases navigation through the health system with the assistance of case/care management. The patient-centered care model emphasizes self-management of chronic disease.

Unique approaches to improving the management of cardiovascular disease (CVD) reflect the multiple factors involved in managing the disease. Many of the interventions used to improve diabetes care also apply to CVD, especially in populations with high rates of comorbidity for these diseases.

One of the best examples of an improvement initiative undertaken by a health plan and the quality lessons learned is provided on the NCQA Web site.[5-40] After conducting pilot studies to confirm the opportunity for improvement, a health plan used the data to perform a root-cause analysis to identify barriers.

As a first component of its improvement project, the health plan established a data registry that included coronary heart disease (CHD) or coronary artery disease (CAD) members, demographic information, comorbidities, medications, risk stratification levels, smoking status, and laboratory dates and results. The registry was crucial to the implementation of the health plan's CAD Health Management Program. Uses of the registry included:

- Daily identification of patient needs and the planning of office visits.
- Implementation of interventions aimed at improving patients' knowledge of, and compliance with, their lipid management regimen.
- Assistance to staff to remind patients of needed services, monitor pharmaceutical data, and make adjustments based on laboratory data.
- Working tool for physicians' offices.

[5-40] National Committee for Quality Assurance 2008. Quality Profiles: The Leadership Series. Focus on Cardiovascular Disease. Available at http://www.qualityprofiles.org/leadership_series/cardiovascular_disease/index.asp. Assessed September 8, 2009.

Member incentives included case management, educational mailings, and telephone reminders. Provider education included presentations and mailings covering:

- The CAD Health Management Program
- Updated hyperlipidemia clinical guidelines and patient education materials
- Measures and target LDL levels (inclusive of LDL levels and office visits)
- The need to treat to target levels
- The registry and the reports providers would be receiving
- Financial incentives to offset the cost of implementation

Both *LDL-C Screening* and *LDL-C Level* <100 submeasures for *Cholesterol Management for Patients With Cardiovascular Conditions* demonstrated statistically significant improvement for three remeasurement periods, resulting in sustained improvement. Additionally, the health plan documented reduced costs associated with their CAD members.

Most of the interventions implemented to improve the performance of health plans for their CAD members as mentioned above can be applied to treatment for members with other chronic illnesses or comorbidities, and for improving performance on other HEDIS measures.

Based on the *Comprehensive Diabetes Care* findings, HSAG has documented several successful interventions implemented to improve HEDIS rates for this measure. Successful in this context is defined as achieving sustained improvement over several years. PIPs and QIPs focusing on diabetes care have been effective in improving HEDIS rates for the *Comprehensive Diabetes Care* submeasures: *Eye Exam (Retinal) Performed, Hemoglobin A1c (HbA1c) Testing,* and *LDL-C Screening Performed.* HSAG has compiled information from PIPs/QIPs demonstrating sustained improvement for these HEDIS rates.[5-41] After identifying specific barriers from causal/barrier analyses, health plans implemented these interventions:

For both members and providers:

- Instituted a diabetic health management program
- Changed a health benefit to eliminate referral requirements for diabetic members' annual eye exam
- Created a dedicated diabetes health management committee to develop and implement interventions, program improvements, and review guidelines

For members:

- Identified diabetic members in a new member welcome call assessment
- Distributed health report cards to members with their testing and result history
- Provided incentives to members compliant with all screening requirements
- Distributed quarterly newsletters with diabetes articles and updates
- Contacted noncompliant members using reminder letters/calls

[5-41] Health Services Advisory Group. Validation of Performance and Quality Improvement Projects. Studies validated between 2004 and 2009.

For providers:

- Informed providers of member incentives
- Sent report cards to providers documenting their care of diabetic members, including the identification of diabetic members, a summary of all diabetes services received, and a chart tool
- Recognized top-performing practitioners in diabetes care
- Mailed diabetes clinical care guidelines to practitioners, including an assessment tool
- Posted diabetes clinical care guidelines for practitioners on the Web site
- Distributed monthly newsletters to practitioners

Interventions related to education, either for the member or practitioner, were more successful if they were repeated numerous times and the educational materials were distributed using varied modalities.

The importance of barrier-specific interventions is highlighted in following example taken from Quality Lesson: Barrier-Based Diabetes Education Initiatives Improve HEDIS Results.[5-42] A health plan determined that its efforts to improve HEDIS results for diabetes testing were not sufficient. Previous efforts included newsletter mailings and case management of high-risk members. The health plan decided to focus on diabetes education for members early in the course of their disease to prevent complications. The health plan developed a database to track the tests and results of diabetic members and conducted a survey of its members with diabetes to determine the barriers to screening tests. Based on the survey results, the health plan focused on specific areas where education efforts were needed.

The health plan then implemented the following interventions:

- Mailing of "Focus" eye care educational materials: Three mailings took place during the year to members who had not received a retinal eye examination. These mailings included a reminder written partially in blurry text to encourage members to make an appointment, reinforcing that eye exams are important.
- A glucose meter program: All members with diabetes received an expanded selection of equipment and accompanying education.

Evaluation of the HEDIS results demonstrated improvement for *Hemoglobin A1c (HbA1c) Testing* and *LDL-C Screening Performed*, but the rates for retinal eye examinations decreased from baseline. Based on these results, the health plan identified additional barriers through discussions with practitioners and members: referrals for eye exams created delays and members were unaware of the seriousness of their condition. From these findings, the health plan expanded educational efforts to more members using different teaching modalities.

[5-42] National Committee for Quality Assurance 2008. Quality Profiles: The Leadership Series. Focus on Diabetes. Available at http://www.qualityprofiles.org/leadership_series/diabetes/diabetes_prevention.asp#. Assessed September 8, 2009.

Additional interventions included:

- Member educational seminars.
- "Eating for Health" and "Cooking With a Diabetic Chef," seminars conducted by a dietitian that focused on proper meal planning and food selection. They included a healthy lunch to demonstrate the teaching content.
- A Christmas party for children with diabetes: The health plan supplied gifts and entertainment while educating parents and children about diabetes and strategies for managing the disease. The children met other kids with diabetes, and the parents had the opportunity to form a support network.
- Web site education: Members could interact with a nurse via the Internet.
- A "Nurse Care Call" educational program: Members who were not obtaining screening tests according to HEDIS guidelines received calls from a nurse over an eight-week period. The nurse provided education and discussed issues or questions members had about diabetes.
- Summer camp for children with diabetes: The health plan sponsored children's attendance at a week-long camp offered by the ADA. The children were selected through a coloring contest, and the health plan has been able to sponsor all entrants.

Improved rates for *Hemoglobin A1c (HbA1c) Testing* and *LDL-C Screening Performed* were statistically significant from baseline to the final remeasurement. Diabetes-related eye examinations did not improve significantly, but showed positive gains. The health plan improved HEDIS screening results for diabetes by tracking members throughout the year who were not receiving services and by providing continual reminders and education. Additionally, the personal contact by nurses permitted the health plan to tailor education to member-identified needs.

Introduction

A CDC survey revealed that during 2008, 19 percent of U.S. adults did not have an office visit to a doctor or other health professional in the previous 12 months. Of those who had an office visit, 17 percent reported one office visit, 27 percent reported 2 to 3 visits, 24 percent reported 4 to 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 had a recent office visit with a doctor or other health professional (within the past 12 months) and that office visits to a doctor or other health professional in the past 12 months were inversely related to patients' level of education.

Americans made approximately 102.2 million visits to hospital outpatient departments (OPDs) in 2006.[6-2] Based on demographics, OPD visit rates were higher for females than males and were higher for African Americans than whites. About 51 percent of all OPD visits were made by patients with one or more comorbid chronic conditions, and diabetes was the leading primary diagnosis.[6-3]

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*
- ***Frequency of Selected Procedures***
  - *Frequency of Selected Procedures—Myringotomy*
  - *Frequency of Selected Procedures—Tonsillectomy*

[6-1] Centers for Disease Control and Prevention. Summary Health Statistics for U.S. Adults: National Health Interview Survey, 2008 (Provisional Report). National Center for Health Statistics. Available at: http://www.cdc.gov/nchs/data/series/sr_10/sr10_242.pdf. Accessed on September 9, 2009.

[6-2] Centers for Disease Control and Prevention. National Hospital Ambulatory Medical Care Survey: 2006 Outpatient Department Summary. Available at: http://www.ncbi.nlm.nih.gov/pubmed/18958995. Accessed on September 9, 2009.

[6-3] Ibid.

- *Frequency of Selected Procedures—Dilation & Curettage*
- *Frequency of Selected Procedures—Hysterectomy, Abdominal*
- *Frequency of Selected Procedures—Hysterectomy, Vaginal*
- *Frequency of Selected Procedures—Cholecystectomy, Open*
- *Frequency of Selected Procedures—Cholecystectomy, Closed (laparoscopic)*
- *Frequency of Selected Procedures—Back Surgery*
- *Frequency of Selected Procedures—Mastectomy*
- *Frequency of Selected Procedures—Lumpectomy*

- ***Antibiotic Utilization***
  - *Antibiotic Utilization—Average Scrips PMPY for Antibiotics*
  - *Antibiotic Utilization—Average Days Supplied per Antibiotic Scrip*
  - *Antibiotic Utilization—Average Scrips PMPY for Antibiotics of Concern*
  - *Antibiotic Utilization—Percentage of Antibiotics of Concern of All Antibiotic Scrips*

Inpatient Utilization—General Hospital/Acute Care

In 2006, there were 39.5 million discharges from community hospitals in the United States (131.9 discharges per 1,000 people).[6-4] Female discharges accounted for 59 percent of all discharges, and 2 out of every 10 female hospitalizations were related to pregnancy and childbirth.[6-5]

The aggregate costs for stays in U.S. community hospitals increased approximately 7.1 percent per year (on average) from 1997 to 2006. Medicare was the primary payer for 37 percent of all inpatient hospital discharges in 2006, while Medicaid paid for 20 percent during the same year.[6-6] Colorado had 479,166 total discharges from hospitals in 2007. The mean length of stay was 4.1 days and the mean cost was $28,315.[6-7] Medicare was the payer for 26.2 percent of these discharges, while Medicaid was the payer for 15.1 percent.[6-8]

These submeasures 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***

[6-4] Agency for Healthcare Research and Quality. HCUP Facts and Figures: Statistics on Hospital-based Care in the United States in 2006. Available at: http://www.hcup-us.ahrq.gov/reports/factsandfigures/HAR_2006.pdf. Accessed on September 9, 2009.
[6-5] Ibid.
[6-6] Ibid.
[6-7] 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 September 9, 2009.
[6-8] Ibid.

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.

Health Plan Ranking: General Hospital/Acute Care—Total Inpatient

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

IDSS	Health 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	2.3	1.3	3.6	14.8	14.6	6.1	6.6	6.4	5.7
4278	Rocky Mountain Health Plans	RMHP	5.2	2.2	9.3	32.7	21.5	22.0	26.5	27.2	13.9
9217	Primary Care Physician Program	PCPP	3.7	1.2	3.7	13.3	17.8	15.7	16.7	24.6	9.0
3455	Fee For Service	FFS	6.5	1.1	7.5	31.0	20.8	14.5	16.2	17.4	12.0
	2009 Colorado Medicaid Average		6.0	1.1	7.0	28.9	19.9	14.1	15.9	17.7	11.3
	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		- -	- -	- -	- -	- -	- -	- -	- -	- -
	National HEDIS 2008 Medicaid 50th Percentile		10.1	2.0	4.0	17.7	16.8	14.8	15.2	16.4	8.0

Table 6-1 shows the discharges per 1,000 member months for each age span and the total for all age groups. For the age-group total, the 2009 Colorado Medicaid average and all of the health plans, with the exception of DHMC, had more discharges than the national HEDIS 2008 Medicaid 50th percentile of 8 discharges per 1,000 member months. DHMC had 2.3 fewer discharges than the national HEDIS 2008 Medicaid 50th percentile.

When comparing the 2008 weighted averages to the 2009 weighted averages, the discharges per 1,000 member months decreased for all age groups from less than 1 year to 44 years, and increased for all of the age groups from 45 years to 85 or more years. The total discharges for all age groups decreased by 0.2 discharges per 1,000 member months from 2008 to 2009.

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

IDSS	Health 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	10.0	2.8	9.9	48.3	76.4	39.5	30.2	39.2	21.7
4278	Rocky Mountain Health Plans	RMHP	19.1	5.4	22.1	75.9	101.2	141.7	151.2	140.7	46.5
9217	Primary Care Physician Program	PCPP	9.5	7.0	16.8	61.1	108.7	93.9	94.2	110.7	48.6
3455	Fee For Service	FFS	29.8	4.2	22.4	94.9	130.1	75.6	78.7	80.2	45.8
	2009 Colorado Medicaid Average		27.2	4.3	20.9	89.0	121.5	76.3	79.2	82.2	43.8
	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		- -	- -	- -	- -	- -	- -	- -	- -	- -
	National HEDIS 2008 Medicaid 50th Percentile		46.3	6.3	12.2	55.3	81.3	70.2	66.8	75.0	28.8

Table 6-2 displays the inpatient days per 1,000 member months for each age span and the total for all age groups. For the age-group total, the 2009 Colorado Medicaid average and all of the health plans, with the exception of DHMC, had more total days than the national HEDIS 2008 Medicaid 50th percentile of 28.8 days per 1,000 member months. DHMC had 7.1 fewer days than the national HEDIS 2008 Medicaid 50th percentile.

When comparing the 2008 weighted averages to the 2009 weighted averages, the days per 1,000 member months decreased for all age groups from less than 1 year to 64 years, and increased for all of the age groups from 65 years to 85 or more years. The total days for all age groups decreased by 1.9 days per 1,000 member months from 2008 to 2009.

Table 6-3—Utilization of Services:
Inpatient Utilization—Average Length of Stay

IDSS	Health 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	4.4	2.2	2.8	3.3	5.2	6.5	4.6	6.1	3.8
4278	Rocky Mountain Health Plans	RMHP	3.7	2.4	2.4	2.3	4.7	6.4	5.7	5.2	3.3
9217	Primary Care Physician Program	PCPP	2.6	6.0	4.5	4.6	6.1	6.0	5.7	4.5	5.4
3455	Fee For Service	FFS	4.5	4.0	3.0	3.1	6.3	5.2	4.9	4.6	3.8
	2009 Colorado Medicaid Average		4.5	3.8	3.0	3.1	6.1	5.4	5.0	4.6	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		- -	- -	- -	- -	- -	- -	- -	- -	- -
	National HEDIS 2008 Medicaid 50th Percentile		4.1	2.9	3.0	3.1	4.9	5.2	5.3	5.0	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 2009 Colorado Medicaid average and all of the health plans, except RMHP, exceeded the total average length of stay of the national HEDIS 2008 Medicaid 50th percentile of 3.6 days. RMHP had an average that was 0.3 days lower than the national HEDIS 2008 Medicaid 50th percentile.

When comparing the 2008 weighted averages to the 2009 weighted averages, the average length of stay decreased for the less than 1, 10 to 19, 45 to 64, 75 to 84, and 85 and older age groups. The average length of stay increased for all of the remaining age groups, except for the 20 to 44 age group, which stayed the same from 2008 to 2009. The average length of stay for all age groups decreased by 0.1 days per 1,000 member months from 2008 to 2009.

HEDIS Specification: General Hospital/Acute Care—Medicine

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

Health Plan Ranking: General Hospital/Acute Care—Medicine

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

IDSS	Health 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	1.0	0.6	3.0	10.9	3.6	4.1	4.1	2.5
4278	Rocky Mountain Health Plans	RMHP	4.4	1.7	1.9	4.7	10.9	15.8	19.6	22.1	5.1
9217	Primary Care Physician Program	PCPP	3.2	0.8	1.1	6.1	12.3	10.5	11.7	20.2	5.4
3455	Fee For Service	FFS	5.7	0.7	0.9	4.3	14.7	9.9	12.1	14.2	4.1
	2009 Colorado Medicaid Average		5.3	0.8	0.9	4.3	13.9	9.6	11.8	14.4	4.0
	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		- -	- -	- -	- -	- -	- -	- -	- -	- -
	National HEDIS 2008 Medicaid 50th Percentile		8.5	1.7	1.1	3.9	11.7	11.0	10.5	12.6	3.6

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, the 2009 Colorado Medicaid average and all of the health plans, except for DHMC, had more medicine discharges than the national HEDIS 2008 Medicaid 50th percentile of 3.6 discharges per 1,000 member months. DHMC had 1.1 fewer discharges than the national HEDIS 2008 Medicaid 50th percentile.

When comparing the 2008 weighted averages to the 2009 weighted averages, the medicine discharges per 1,000 member months decreased for all age groups from less than 1 year to 19 years, and increased for all of the age groups from 45 years to 85 or more years. The 20 to 44 age group remained the same for both years. The medicine discharges for all age groups decreased by 0.2 discharges per 1,000 member months from 2008 to 2009.

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

IDSS	Health 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	9.1	2.2	1.5	9.8	49.4	18.2	15.4	19.9	9.4
4278	Rocky Mountain Health Plans	RMHP	13.4	3.2	4.4	15.7	41.6	77.3	87.7	104.7	18.6
9217	Primary Care Physician Program	PCPP	7.9	2.9	7.8	26.5	63.3	55.9	49.1	86.6	26.1
3455	Fee For Service	FFS	23.4	2.3	4.0	17.1	69.5	43.3	53.3	59.0	17.3
	2009 Colorado Medicaid Average		21.4	2.4	4.0	17.0	65.9	43.5	51.6	60.4	17.2
	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		- -	- -	- -	- -	- -	- -	- -	- -	- -
	National HEDIS 2008 Medicaid 50th Percentile		32.6	4.6	3.1	14.7	50.4	50.2	38.5	53.4	13.4

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, the 2009 Colorado Medicaid average and all of the health plans, with the exception of DHMC, had more medicine days per 1,000 member months than the national HEDIS 2008 Medicaid 50th percentile of 13.4 medicine days. DHMC had 4 fewer medicine days than the national HEDIS 2008 Medicaid 50th percentile.

When comparing the 2008 weighted averages to the 2009 weighted averages, the medicine days per 1,000 member months decreased for all age groups from less than 1 year to 64 years, and increased for all of the age groups from 65 years to 85 or more years. The medicine days for all age groups decreased by 0.8 days per 1,000 member months from 2008 to 2009.

Table 6-6—Utilization of Services:
Inpatient Utilization—Medicine Average Length of Stay

IDSS	Health 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	4.3	2.2	2.7	3.3	4.5	5.1	3.8	4.9	3.8
4278	Rocky Mountain Health Plans	RMHP	3.1	1.9	2.3	3.4	3.8	4.9	4.5	4.7	3.7
9217	Primary Care Physician Program	PCPP	2.5	3.6	7.1	4.4	5.2	5.3	4.2	4.3	4.8
3455	Fee For Service	FFS	4.1	3.2	4.3	4.0	4.7	4.4	4.4	4.1	4.3
	2009 Colorado Medicaid Average		4.1	3.0	4.3	3.9	4.7	4.5	4.4	4.2	4.3
	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		- -	- -	- -	- -	- -	- -	- -	- -	- -
	National HEDIS 2008 Medicaid 50th Percentile		3.5	2.7	3.0	3.6	4.3	4.4	4.5	4.6	3.7

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 health plans and the 2009 Colorado Medicaid average had the same number or exceeded the national HEDIS 2007 Medicaid 50th percentile of 3.7 days for average length of stay.

While the Colorado Medicaid average for medicine average length of stay remained relatively stable from 2008 to 2009, the less than 1, 20 to 44, 45 to 64, 75 to 84, and the 85 and older age groups showed decreases, while the 1 to 9 and 10 to 19 age groups increased. The 65 to 74 and total age groups remained the same from 2008 to 2009.

HEDIS Specification: General Hospital/Acute Care—Surgery

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

Health Plan Ranking: General Hospital/Acute Care—Surgery

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

IDSS	Health 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	0.2	0.3	0.2	1.4	3.7	2.4	2.4	2.3	0.9
4278	Rocky Mountain Health Plans	RMHP	0.8	0.6	1.1	4.0	10.4	6.4	7.5	5.1	2.9
9217	Primary Care Physician Program	PCPP	0.5	0.4	0.9	2.4	5.6	5.2	5.0	4.4	2.4
3455	Fee For Service	FFS	0.8	0.3	0.5	2.2	6.1	4.6	4.0	3.2	1.6
	2009 Colorado Medicaid Average		0.7	0.3	0.5	2.2	5.9	4.5	4.1	3.3	1.6
	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		- -	- -	- -	- -	- -	- -	- -	- -	- -
	National HEDIS 2008 Medicaid 50th Percentile		1.1	0.3	0.5	1.9	5.0	4.0	3.3	1.5	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, the 2009 Colorado Medicaid average and all of the health plans, except for DHMC, had more surgery discharges per 1,000 member months than the national HEDIS 2008 Medicaid 50th percentile of 1.2 discharges.

When comparing the 2008 weighted averages to the 2009 weighted averages, the surgery discharges per 1,000 member months decreased for all age groups from less than 1 year to 19 years, and increased for all of the age groups from 45 years to 85 or more years. The 20 to 44 age group remained the same for both years. The medicine discharges for all age groups increased by 0.2 discharges per 1,000 member months from 2008 to 2009.

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

IDSS	Health 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	0.9	0.6	1.7	11.5	26.5	19.2	14.2	19.3	6.3
4278	Rocky Mountain Health Plans	RMHP	5.7	2.2	5.2	14.2	58.2	64.4	63.4	36.0	16.3
9217	Primary Care Physician Program	PCPP	1.6	4.1	3.7	22.3	45.4	37.9	45.1	24.1	19.2
3455	Fee For Service	FFS	6.4	1.9	3.0	15.3	60.5	32.3	25.3	21.2	12.4
	2009 Colorado Medicaid Average		5.8	1.9	3.0	15.3	55.4	32.7	27.6	21.8	12.4
	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		- -	- -	- -	- -	- -	- -	- -	- -	- -
	National HEDIS 2008 Medicaid 50th Percentile		8.1	1.4	2.1	8.7	31.3	24.3	21.6	8.5	6.3

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 health plans and the 2009 Colorado Medicaid average had the same number or exceeded the national HEDIS 2008 Medicaid 50th percentile of 6.3 surgery days per 1,000 member months.

When comparing the 2008 weighted averages to the 2009 weighted averages, the medicine days per 1,000 member months decreased for all age groups from less than 1 year to 44 years, and increased for all of the age groups from 45 years to 85 or more years. The medicine days for all age groups decreased by 1.0 days per 1,000 member months from 2008 to 2009.

Table 6-9—Utilization of Services:
Inpatient Utilization—Surgery Average Length of Stay

IDSS	Health 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	5.2	2.2	7.5	8.2	7.2	7.9	6.0	8.3	6.8
4278	Rocky Mountain Health Plans	RMHP	7.3	3.8	4.8	3.5	5.6	10.0	8.4	7.1	5.6
9217	Primary Care Physician Program	PCPP	3.3	11.0	4.3	9.2	8.2	7.2	9.1	5.5	8.1
3455	Fee For Service	FFS	7.8	6.1	5.5	6.9	10.0	7.1	6.3	6.7	7.7
	2009 Colorado Medicaid Average		7.7	5.9	5.4	6.9	9.4	7.3	6.7	6.7	7.6
	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		- -	- -	- -	- -	- -	- -	- -	- -	- -
	National HEDIS 2008 Medicaid 50th Percentile		7.4	4.2	4.2	4.7	6.4	6.9	7.1	6.0	5.5

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 health plans and the 2009 Colorado Medicaid average had a longer average length of stay than the national HEDIS 2008 Medicaid 50th percentile of 5.5 days.

When comparing the 2008 weighted averages to the 2009 weighted averages, the surgery average length of stay decreased for all age groups, including the total of all age groups. The surgery average length of stay for all age groups showed a statistically significant decline of 1.7 days from 2008 to 2009.

HEDIS Specification: General Hospital/Acute Care—Maternity

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

Health Plan Ranking: General Hospital Acute Care—Maternity

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

IDSS	Health Plan Name	Code	Ages 10–19	Ages 20–44	Ages 45–64	Total
7076	Denver Health Medicaid Choice	DHMC	2.8	10.4	0.0	5.0
4278	Rocky Mountain Health Plans	RMHP	6.3	24.0	0.2	12.2
9217	Primary Care Physician Program	PCPP	1.8	4.8	0.0	2.2
3455	Fee For Service	FFS	6.1	24.5	0.1	13.0
	2009 Colorado Medicaid Average		5.5	22.4	0.0	11.6
	2008 Colorado Medicaid Average		5.6	23.2	0.1	11.9
	2007 Colorado Medicaid Average		- -	- -	- -	- -
	National HEDIS 2008 Medicaid 50th Percentile		2.3	10.5	0.1	5.5

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 2009 Colorado Medicaid average and two of the health plans, RMHP and FFS, had more maternity discharges than the national HEDIS 2008 Medicaid 50th percentile of 5.5 maternity discharges per 1,000 member months.

When comparing the Colorado Medicaid average from 2008 to 2009, the maternity discharges per 1,000 member months decreased for all age groups and the total of all age groups. The maternity discharges decreased by 0.3 discharges per 1,000 member months for the total of all age groups.

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

IDSS	Health Plan Name	Code	Ages 10–19	Ages 20–44	Ages 45–64	Total
7076	Denver Health Medicaid Choice	DHMC	6.7	27.0	0.5	13.0
4278	Rocky Mountain Health Plans	RMHP	12.5	46.0	1.4	23.8
9217	Primary Care Physician Program	PCPP	5.3	12.3	0.0	6.0
3455	Fee For Service	FFS	15.4	62.6	0.1	33.2
	2009 Colorado Medicaid Average		13.9	56.7	0.2	29.3
	2008 Colorado Medicaid Average		14.2	56.2	0.6	29.2
	2007 Colorado Medicaid Average		- -	- -	- -	- -
	National HEDIS 2008 Medicaid 50th Percentile		6.2	27.4	0.2	14.2

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 2009 Colorado Medicaid average and two of the health

plans, RMHP and FFS, had more maternity days than the national HEDIS 2008 Medicaid 50th percentile of 14.2 maternity days per 1,000 member months.

From 2008 to 2009, the maternity days per 1,000 member months decreased for the 10 to 19 and 45 to 64 age groups, while the days increased for the 20 to 44 age group and the total for all age groups. The total for all age groups increased by 0.1 days per 1,000 member months.

Table 6-12—Utilization of Services:
Inpatient Utilization—Maternity Average Length of Stay

IDSS	Health Plan Name	Code	Ages 10–19	Ages 20–44	Ages 45–64	Total
7076	Denver Health Medicaid Choice	DHMC	2.4	2.6	10.5	2.6
4278	Rocky Mountain Health Plans	RMHP	2.0	1.9	7.0	1.9
9217	Primary Care Physician Program	PCPP	3.0	2.5	NA	2.7
3455	Fee For Service	FFS	2.5	2.6	2.3	2.6
	2009 Colorado Medicaid Average		2.5	2.5	3.7	2.5
	2008 Colorado Medicaid Average		2.5	2.4	4.6	2.4
	2007 Colorado Medicaid Average		- -	- -	- -	- -
	National HEDIS 2008 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, all of the health plans, except for RMHP, had the same or longer average length of stay than the national HEDIS 2008 Medicaid 50th percentile of 2.6 days. The 2009 Colorado Medicaid average was also lower than the national HEDIS 2008 Medicaid 50th percentile by 0.1 days.

The maternity average length of stay remained relatively stable for all age groups from 2008 to 2009. The 20 to 44 age group and the total for all age groups increased by 0.1 days each, while the 45 to 64 age group decreased by 0.9 days.

Ambulatory Care

In 2006, approximately 1.1 billion visits were made to physician offices, OPDs, and hospital emergency departments (EDs) in the United States.[6-9] Of these, 18.3 percent were for nonillness or noninjury conditions such as checkups and pregnancy exams. Approximately 47 percent of ambulatory medical care visits were made to office-based primary care physicians. The rest of the visits were to office-based medical specialists (17.7 percent) and surgical specialists (15.8 percent), and to EDs (10.6 percent) and OPDs (9.1 percent) in nonfederal, general, and short-stay hospitals.[6-10]

This measure summarizes utilization of ambulatory care in the following submeasure categories:

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

[6-9] Centers for Disease Control and Prevention. National Ambulatory Medical Care Survey. Ambulatory Medical Care Utilization Estimates for 2006. Available at: http://www.cdc.gov/nchs/data/nhsr/nhsr008.pdf. Accessed on September 10, 2009.
[6-10] Ibid.

HEDIS Specification: Ambulatory Care—Outpatient Visits

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

Health Plan Ranking: Ambulatory Care—Outpatient Visits

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

IDSS	Health 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	293.0	147.0	160.9	293.9	363.6	401.6	326.4	185.1	219.9
4278	Rocky Mountain Health Plans	RMHP	684.6	327.3	291.4	445.8	806.6	771.7	865.8	714.8	461.3
9217	Primary Care Physician Program	PCPP	640.6	298.8	296.4	439.7	660.5	608.3	592.2	543.3	434.2
3455	Fee For Service	FFS	740.5	273.1	253.0	368.8	561.2	484.5	461.7	391.1	364.2
	2009 Colorado Medicaid Average		694.4	262.7	248.6	369.1	561.1	498.5	477.6	401.8	358.1
	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		- -	- -	- -	- -	- -	- -	- -	- -	- -
	National HEDIS 2008 Medicaid 50th Percentile		687.7	271.3	203.6	361.4	539.1	436.1	408.2	269.8	324.0

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, the 2009 Colorado Medicaid average and all of the health plans, with the exception of DHMC, had more outpatient visits per 1,000 member months compared to the national HEDIS 2008 Medicaid 50th percentile of 324 outpatient visits. DHMC had 104.1 fewer outpatient visits than the national HEDIS 2008 Medicaid 50th percentile.

When comparing the Colorado Medicaid average from 2008 to 2009, the less than 1 and 1 to 9 age groups were the only ones to show decreases in outpatient visits per 1,000 member months. The remaining age groups, including the total for all age groups, showed increases in outpatient visits. The total outpatient visits for all age groups increased by 67.5 from 2008 to 2009.

HEDIS Specification: Ambulatory Care—ED Visits

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

Health Plan Ranking: Ambulatory Care—ED Visits

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

IDSS	Health 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	7.5	5.3	6.6	15.4	20.7	14.2	11.8	11.4	9.4
4278	Rocky Mountain Health Plans	RMHP	57.6	36.8	40.4	98.6	96.3	63.5	49.8	63.6	59.2
9217	Primary Care Physician Program	PCPP	101.0	49.0	48.5	88.5	86.5	52.3	47.9	52.2	63.8
3455	Fee For Service	FFS	100.6	48.4	45.2	93.7	85.1	47.0	48.1	44.2	63.9
	2009 Colorado Medicaid Average		90.5	43.5	41.8	87.6	79.3	45.3	45.8	44.1	58.8
	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		- -	- -	- -	- -	- -	- -	- -	- -	- -
	National HEDIS 2008 Medicaid 50th Percentile		93.5	48.3	40.0	94.1	72.3	32.8	23.6	25.3	60.2

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, PCPP and FFS had more emergency department visits per 1,000 member months than the national HEDIS 2008 Medicaid 50th percentile of 60.2 visits. DHMC had 50.8 fewer visits, while RMHP had one less visit, and the 2009 Colorado Medicaid average had 1.4 fewer visits.

From 2008 to 2009, there were only decreases in emergency department visits per 1,000 member months for the less than 1, 1 to 9, and 10 to 19 age groups. The remaining age groups, including the total for all age groups, demonstrated increases in emergency department visits. The total number of emergency department visits per 1,000 member months increased by 6.4 for the total of all age groups.

HEDIS Specification: Ambulatory Care—Ambulatory Surgery/Procedures

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

Health Plan Ranking: Ambulatory Care—Ambulatory Surgery/Procedures

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

IDSS	Health 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	10.7	14.7	6.0	18.2	29.6	44.0	37.5	19.3	16.5
4278	Rocky Mountain Health Plans	RMHP	4.6	6.3	6.8	22.7	32.1	27.8	20.5	14.5	13.6
9217	Primary Care Physician Program	PCPP	4.9	5.4	5.8	16.1	30.0	27.6	26.9	13.5	14.5
3455	Fee For Service	FFS	5.4	5.2	5.3	16.9	28.9	25.2	18.8	8.7	11.0
	2009 Colorado Medicaid Average		5.9	6.2	5.5	17.2	29.2	27.1	20.8	9.4	11.7
	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		- -	- -	- -	- -	- -	- -	- -	- -	- -
	National HEDIS 2008 Medicaid 50th Percentile		2.7	3.0	2.1	9.6	21.4	16.1	13.5	4.4	5.4

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 2009 Colorado Medicaid average and all of the health plans had more ambulatory surgery procedures than the national HEDIS 2008 Medicaid 50th percentile of 5.4 procedures per 1,000 member months. The 2009 Colorado Medicaid average more than doubled compared the average from 2008.

When comparing the Colorado Medicaid averages from 2008 to 2009, all of the age groups, in addition to the total for all age groups, showed increases in the number of ambulatory surgery procedures per 1,000 member months. The total rate for all age groups showed a statistically significant increase of 6.3 ambulatory surgery procedures per 1,000 member months.

HEDIS Specification: Ambulatory Care—Observation Room Stays

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

Health Plan Ranking: Ambulatory Care—Observation Room Stays

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

IDSS	Health 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	1.3	0.5	0.8	2.1	0.0	0.0	0.0	0.0	0.8
4278	Rocky Mountain Health Plans	RMHP	1.7	0.5	0.9	2.3	1.4	2.6	1.0	2.0	1.2
9217	Primary Care Physician Program	PCPP	1.4	0.5	1.5	2.2	2.0	2.4	3.2	0.2	1.6
3455	Fee For Service	FFS	2.3	0.5	2.4	6.8	2.5	1.8	1.8	1.9	2.6
	2009 Colorado Medicaid Average		2.2	0.5	2.1	6.1	2.1	1.8	1.8	1.8	2.3
	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		- -	- -	- -	- -	- -	- -	- -	- -	- -
	National HEDIS 2008 Medicaid 50th Percentile		1.3	0.3	1.0	4.8	1.7	0.2	0.1	0.0	1.7

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 2009 Colorado Medicaid average and FFS were the only two to have more observation room stays than the national HEDIS 2008 Medicaid 50th percentile of 1.7 stays per 1,000 member months. DHMC had 0.9 fewer stays while RMHP had 0.5 fewer stays and PCPP had 0.1 fewer stays compared to the national HEDIS 2008 Medicaid 50th percentile.

From 2008 to 2009, the less than 1, 1 to 9, 10 to 19, and 20 to 44 age groups, in addition to the total for all age groups, were the only age groups to demonstrate decreases in the number of observation room stays per 1,000 member months. The number of observation room stays per 1,000 member months decreased by 0.1 for the total for all age groups. The remaining age groups demonstrated increases in the number of observation room stays.

Frequency of Selected Procedures

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.[6-11] One of the most frequent reasons for hospitalization was childbirth and newborns, which together accounted for 23 percent of all hospitalizations in 2005.[6-12] 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.[6-13] 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.[6-14]

These submeasures summarize the utilization of frequently performed procedures that often show wide regional variation and have generated concern regarding potentially inappropriate utilization:

- ***Frequency of Selected Procedures—Myringotomy***
- ***Frequency of Selected Procedures—Tonsillectomy***
- ***Frequency of Selected Procedures—Dilation & Curettage***
- ***Frequency of Selected Procedures—Hysterectomy, Abdominal***
- ***Frequency of Selected Procedures—Hysterectomy, Vaginal***
- ***Frequency of Selected Procedures—Cholecystectomy, Open***
- ***Frequency of Selected Procedures—Cholecystectomy, Closed (laparoscopic)***
- ***Frequency of Selected Procedures—Back Surgery***
- ***Frequency of Selected Procedures—Mastectomy***
- ***Frequency of Selected Procedures—Lumpectomy***

[6-11] 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.
[6-12] Ibid.
[6-13] Ibid.
[6-14] 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: Frequency of Selected Procedures—Myringotomy, Ages 0 to 4 and 5 to 19, Male and Female

The *Frequency of Selected Procedures* measure summarizes utilization of myringotomy for children in the age groups of 0 to 4 and 5 to 19, which often shows wide regional variation and has generated concern regarding potentially inappropriate utilization.

Health Plan Ranking: Frequency of Selected Procedures—Myringotomy, Ages 0 to 4 and 5 to 19, Male and Female

Table 6-17—Utilization of Services:
Frequency of Selected Procedures—Myringotomy Procedures/1,000 MM

IDSS	Health Plan Name	Code	Ages 0–4	Ages 5–19
7076	Denver Health Medicaid Choice	DHMC	0.0	0.0
4278	Rocky Mountain Health Plans	RMHP	3.9	0.5
9217	Primary Care Physician Program	PCPP	3.0	0.7
3455	Fee For Service	FFS	2.5	0.4
	2009 Colorado Medicaid Average		2.3	0.4
	2008 Colorado Medicaid Average		- -	- -
	2007 Colorado Medicaid Average		- -	- -
	National HEDIS 2008 Medicaid 50th Percentile		2.3	0.4

Table 6-17 shows the frequency of myringotomy procedures for children between the ages of 0 and 4, and between the ages of 5 and 19. For those between the ages of 0 and 4, the 2009 Colorado Medicaid average and all of the health plans, except for DHMC, had the same or more myringotomy procedures per 1,000 member months than the national HEDIS 2008 Medicaid 50th percentile of 2.3 procedures. For those between the ages of 5 and 19, the 2009 Colorado Medicaid average and all of the health plans, except for DHMC, had the same or more myringotomy procedures per 1,000 member months compared to the national HEDIS 2008 Medicaid 50th percentile of 0.4 procedures. DHMC did not have any procedures performed for either the 0–4 age group or the 5–19 age group.

HEDIS Specification: Frequency of Selected Procedures—Tonsillectomy, Ages 0 to 9 and 10 to 19, Male and Female

The *Frequency of Selected Procedures* measure summarizes utilization of tonsillectomy for children between the ages of 0 and 9, and 10 and 19, which often shows wide regional variation and has generated concern regarding potentially inappropriate utilization.

Health Plan Ranking: Frequency of Selected Procedures—Tonsillectomy, Ages 0 to 9 and 10 to 19, Male and Female

Table 6-18—Utilization of Services:
Frequency of Selected Procedures—Tonsillectomy Procedures/1,000 MM

IDSS	Health Plan Name	Code	Ages 0–9	Ages 10–19
7076	Denver Health Medicaid Choice	DHMC	0.0	0.0
4278	Rocky Mountain Health Plans	RMHP	1.0	0.9
9217	Primary Care Physician Program	PCPP	0.9	0.6
3455	Fee For Service	FFS	0.8	0.5
	2009 Colorado Medicaid Average		0.7	0.4
	2008 Colorado Medicaid Average		- -	- -
	2007 Colorado Medicaid Average		- -	- -
	National HEDIS 2008 Medicaid 50th Percentile		0.7	0.3

Table 6-18 shows the frequency of tonsillectomy procedures for children between the ages of 0 and 9, and between the ages of 10 and 19. For those between the ages of 0 and 9, the 2009 Colorado Medicaid average and all of the health plans, except for DHMC, had the same or more tonsillectomy procedures per 1,000 member months than the national HEDIS 2008 Medicaid 50th percentile of 0.7 procedures. For those between the ages of 10 and 19, the 2009 Colorado Medicaid average and all of the health plans, except for DHMC, had more tonsillectomy procedures per 1,000 member months compared to the national HEDIS 2008 Medicaid 50th percentile of 0.3 procedures. DHMC did not have any procedures performed for both the 0–9 age group and the 10–19 age group.

HEDIS Specification: Frequency of Selected Procedures—Dilation & Curettage, Ages 15 to 44 and 45 to 64, Female

The *Frequency of Selected Procedures* measure summarizes utilization of dilation and curettage for females between the ages of 15 and 44, and 45 and 64, which often shows wide regional variation and has generated concern regarding potentially inappropriate utilization.

Health Plan Ranking: Frequency of Selected Procedures—Dilation & Curettage, Ages 15 to 44 and 45 to 64, Female

Table 6-19—Utilization of Services:
Frequency of Selected Procedures—Dilation & Curettage Procedures/1,000 MM

IDSS	Health Plan Name	Code	Ages 15–44	Ages 45–64
7076	Denver Health Medicaid Choice	DHMC	0.0	0.0
4278	Rocky Mountain Health Plans	RMHP	0.2	0.4
9217	Primary Care Physician Program	PCPP	0.2	0.2
3455	Fee For Service	FFS	0.2	0.2
	2009 Colorado Medicaid Average		0.2	0.2
	2008 Colorado Medicaid Average		- -	- -
	2007 Colorado Medicaid Average		- -	- -
	National HEDIS 2008 Medicaid 50th Percentile		0.2	0.2

Table 6-19 shows the frequency of dilation and curettage procedures for females between the ages of 15 and 44, and between the ages of 45 and 64. For those between the ages of 15 and 44, the 2009 Colorado Medicaid average and all of the health plans, except for DHMC, had the same number of dilation and curettage procedures per 1,000 member months as the national HEDIS 2008 Medicaid 50th percentile of 0.2 procedures. For those between the ages of 45 and 64, the 2009 Colorado Medicaid average and all of the health plans, except for DHMC, had the same number of or more dilation and curettage procedures per 1,000 member months compared to the national HEDIS 2008 Medicaid 50th percentile of 0.2 procedures. DHMC did not have any procedures performed for either the 15 to 44 age group, or the 45 to 64 age group.

HEDIS Specification: Frequency of Selected Procedures—Hysterectomy, Abdominal, Ages 15 to 44 and 45 to 64, Female

The *Frequency of Selected Procedures* measure summarizes utilization of abdominal hysterectomy for females between the ages of 15 and 44, and 45 and 64, which often shows wide regional variation and has generated concern regarding potentially inappropriate utilization.

Health Plan Ranking: Frequency of Selected Procedures—Hysterectomy, Abdominal, Ages 15 to 44 and 45 to 64, Female

Table 6-20—Utilization of Services:
Frequency of Selected Procedures—Abdominal Hysterectomy Procedures/1,000 MM

IDSS	Health Plan Name	Code	Abdominal—Ages 15–44	Abdominal—Ages 45–64
7076	Denver Health Medicaid Choice	DHMC	0.1	0.2
4278	Rocky Mountain Health Plans	RMHP	0.3	0.4
9217	Primary Care Physician Program	PCPP	0.3	0.4
3455	Fee For Service	FFS	0.3	0.4
	2009 Colorado Medicaid Average		0.3	0.4
	2008 Colorado Medicaid Average		- -	- -
	2007 Colorado Medicaid Average		- -	- -
	National HEDIS 2008 Medicaid 50th Percentile		0.2	0.5

Table 6-20 shows the frequency of abdominal hysterectomy procedures for females between the ages of 15 and 44, and between the ages of 45 and 64. For those between the ages of 15 and 44, the 2009 Colorado Medicaid average and all of the health plans, except for DHMC, had more abdominal hysterectomy procedures per 1,000 member months than the national HEDIS 2008 Medicaid 50th percentile of 0.2 procedures. DHMC had 0.1 fewer reported procedures than the national HEDIS 2008 Medicaid 50th percentile for the 15 to 44 age group. For those between the ages of 45 and 64, the 2009 Colorado Medicaid average and all of the health plans had fewer abdominal hysterectomy procedures per 1,000 member months compared to the national HEDIS 2008 Medicaid 50th percentile of 0.5 procedures.

HEDIS Specification: Frequency of Selected Procedures—Hysterectomy, Vaginal, Ages 15 to 44 and 45 to 64, Female

The *Frequency of Selected Procedures* measure summarizes utilization of vaginal hysterectomy for females between the ages of 15 and 44, and 45 and 64, which often shows wide regional variation and has generated concern regarding potentially inappropriate utilization.

Health Plan Ranking: Frequency of Selected Procedures—Hysterectomy, Vaginal, Ages 15 to 44 and 45 to 64, Female

Table 6-21—Utilization of Services:
Frequency of Selected Procedures—Vaginal Hysterectomy Procedures/1,000 MM

IDSS	Health Plan Name	Code	Vaginal—Ages 15–44	Vaginal—Ages 45–64
7076	Denver Health Medicaid Choice	DHMC	0.1	0.1
4278	Rocky Mountain Health Plans	RMHP	0.9	0.4
9217	Primary Care Physician Program	PCPP	0.4	0.2
3455	Fee For Service	FFS	0.4	0.4
	2009 Colorado Medicaid Average		0.4	0.4
	2008 Colorado Medicaid Average		- -	- -
	2007 Colorado Medicaid Average		- -	- -
	National HEDIS 2008 Medicaid 50th Percentile		0.1	0.2

Table 6-21 shows the frequency of vaginal hysterectomy procedures for females between the ages of 15 and 44, and between the ages of 45 and 64. For those between the ages of 15 and 44, the 2009 Colorado Medicaid average and all of the health plans had the same number of or more vaginal hysterectomy procedures per 1,000 member months than the national HEDIS 2008 Medicaid 50th percentile of 0.1 procedures. For those between the ages of 45 and 64, the 2009 Colorado Medicaid average and all of the health plans, except for DHMC, had the same number of or more vaginal hysterectomy procedures per 1,000 member months compared to the national HEDIS 2008 Medicaid 50th percentile of 0.2 procedures. DHMC had 0.1 fewer procedures reported than the national HEDIS 2008 Medicaid 50th percentile.

HEDIS Specification: Frequency of Selected Procedures—Cholecystectomy, Open, Ages 15 to 44 and 45 to 64, Female; Ages 30 to 64, Male

The *Frequency of Selected Procedures* measure summarizes utilization of open cholecystectomy for females between the ages of 15 and 44, and 45 to 64, and for males between the ages of 30 and 64, which often shows wide regional variation and has generated concern regarding potentially inappropriate utilization.

Health Plan Ranking: Frequency of Selected Procedures—Cholecystectomy, Open, Ages 15 to 44 and 45 to 64, Female; Ages 30 to 64, Male

Table 6-22—Utilization of Services:
Frequency of Selected Procedures—Open Cholecystectomy Procedures/1,000 MM

IDSS	Health Plan Name	Code	Open—Females, Ages 15–44	Open—Females, Ages 45–64	Open—Males, Ages 30–64
7076	Denver Health Medicaid Choice	DHMC	0.0	0.0	0.0
4278	Rocky Mountain Health Plans	RMHP	0.0	0.2	0.0
9217	Primary Care Physician Program	PCPP	0.0	0.2	0.0
3455	Fee For Service	FFS	0.0	0.1	0.2
	2009 Colorado Medicaid Average		0.0	0.1	0.2
	2008 Colorado Medicaid Average		- -	- -	- -
	2007 Colorado Medicaid Average		- -	- -	- -
	National HEDIS 2008 Medicaid 50th Percentile		0.0	0.0	0.0

Table 6-22 shows the frequency of open cholecystectomy procedures for females between the ages of 15 and 44, and 45 and 64, and for males between the ages of 30 and 64. For females between the ages of 15 and 44, there were no open cholecystectomy procedures performed for any of the health plans, or a national HEDIS 2008 Medicaid 50th percentile. For females between the ages of 45 and 64, the 2009 Colorado Medicaid average and all of the health plans, except for DHMC, had more open cholecystectomy procedures per 1,000 member months compared to the national HEDIS 2008 Medicaid 50th percentile of zero procedures. DHMC did not have any open cholecystectomy procedures performed for females between the ages of 45 and 64. For males between the ages of 30 and 64, FFS and the 2009 Colorado Medicaid average reported 0.2 more open cholecystectomy procedures compared to the national HEDIS 2008 Medicaid 50th percentile of zero procedures. The other three health plans did not perform any open cholecystectomy procedures for males between the ages of 30 and 64.

HEDIS Specification: Frequency of Selected Procedures—Cholecystectomy, Closed, Ages 15 to 44 and 45 to 64, Female; Ages 30 to 64, Male

The *Frequency of Selected Procedures* measure summarizes utilization of closed cholecystectomy for females between the ages of 15 and 44, and 45 to 64, and for males between the ages of 30 and 64, often shows wide regional variation and has generated concern regarding potentially inappropriate utilization.

Health Plan Ranking: Frequency of Selected Procedures—Cholecystectomy, Closed, Ages 15 to 44 and 45 to 64, Female; Ages 30 to 64, Male

Table 6-23—Utilization of Services:
Frequency of Selected Procedures—Closed Cholecystectomy Procedures/1,000 MM

IDSS	Health Plan Name	Code	Closed—Females, Ages 15–44	Closed—Females, Ages 45–64	Closed—Males, Ages 30–64
7076	Denver Health Medicaid Choice	DHMC	0.3	0.1	0.1
4278	Rocky Mountain Health Plans	RMHP	1.5	1.3	0.3
9217	Primary Care Physician Program	PCPP	1.0	1.0	0.6
3455	Fee For Service	FFS	1.3	1.0	0.5
	2009 Colorado Medicaid Average		1.2	1.0	0.5
	2008 Colorado Medicaid Average		- -	- -	- -
	2007 Colorado Medicaid Average		- -	- -	- -
	National HEDIS 2008 Medicaid 50th Percentile		0.7	0.6	0.2

Table 6-23 shows the frequency of closed cholecystectomy procedures for females between the ages of 15 and 44, and 45 and 64, and for males between the ages of 30 and 64. For females between the ages of 15 and 44, the 2009 Colorado Medicaid average and all of the health plans, except for DHMC, had more reported closed cholecystectomy procedures compared to the national HEDIS 2008 Medicaid 50th percentile of 0.7 procedures per 1,000 member months. DHMC had 0.4 fewer reported procedures than the national HEDIS 2008 Medicaid 50th percentile. For females between the ages of 45 and 64, the 2009 Colorado Medicaid average and all of the health plans, except for DHMC, had more closed cholecystectomy procedures per 1,000 member months compared to the national HEDIS 2008 Medicaid 50th percentile of 0.6 procedures. DHMC had 0.5 fewer procedures than the national HEDIS 2008 Medicaid 50th percentile. For males between the ages of 30 and 64, the 2009 Colorado Medicaid average and all of the health plans, except for DHMC, reported more closed cholecystectomy procedures compared to the national HEDIS 2008 Medicaid 50th percentile of 0.2 procedures. DHMC reported 0.1 fewer procedures compared to the national HEDIS 2008 Medicaid 50th percentile.

HEDIS Specification: Frequency of Selected Procedures—Back Surgery, Ages 20 to 44 and 45 to 64, Male; Ages 20 to 44 and 45 to 64, Female

The *Frequency of Selected Procedures* measure summarizes utilization of back surgery for males and females between the ages of 20 and 44, and 45 to 64, which often shows wide regional variation and has generated concern regarding potentially inappropriate utilization.

Health Plan Ranking: Frequency of Selected Procedures—Back Surgery, Ages 20 to 44 and 45 to 64, Male; Ages 20 to 44 and 45 to 64, Female

Table 6-24—Utilization of Services:
Frequency of Selected Procedures—Back Surgery Procedures/1,000 MM

IDSS	Health Plan Name	Code	Females, Ages 20–44	Females, Ages 45–64	Males, Ages 20–44	Males, Ages 45–64
7076	Denver Health Medicaid Choice	DHMC	0.1	0.3	0.2	0.2
4278	Rocky Mountain Health Plans	RMHP	0.6	1.4	1.3	0.4
9217	Primary Care Physician Program	PCPP	0.3	1.1	0.4	0.6
3455	Fee For Service	FFS	0.3	1.0	0.6	1.1
	2009 Colorado Medicaid Average		0.3	0.9	0.6	0.9
	2008 Colorado Medicaid Average		- -	- -	- -	- -
	2007 Colorado Medicaid Average		- -	- -	- -	- -
	National HEDIS 2008 Medicaid 50th Percentile		0.2	0.5	0.4	0.5

Table 6-24 shows the frequency of back surgery procedures for females and males between the ages of 20 and 44, and 45 and 64. For females between the ages of 20 and 44, the 2009 Colorado Medicaid average and all of the health plans, except for DHMC, had more reported back surgery procedures compared to the national HEDIS 2008 Medicaid 50th percentile of 0.2 procedures per 1,000 member months. DHMC had 0.1 fewer reported procedures than the national HEDIS 2008 Medicaid 50th percentile. For females between the ages of 45 and 64, the 2009 Colorado Medicaid average and all of the health plans, except for DHMC, had more back surgery procedures per 1,000 member months compared to the national HEDIS 2008 Medicaid 50th percentile of 0.5 procedures. DHMC had 0.2 fewer procedures than the national HEDIS 2008 Medicaid 50th percentile. For males between the ages of 20 and 44, the 2009 Colorado Medicaid average and all of the health plans, except for DHMC, reported the same number of or more back surgery procedures compared to the national HEDIS 2008 Medicaid 50th percentile of 0.4 procedures. DHMC reported 0.2 fewer procedures than the national HEDIS 2008 Medicaid 50th percentile. For males between the ages of 45 and 64, the 2009 Colorado Medicaid average and two of the health plans, PCPP and FFS, reported more back surgery procedures compared to the national HEDIS 2008 Medicaid 50th percentile of 0.5 procedures. DHMC reported 0.3 fewer procedures compared to the national HEDIS 2008 Medicaid 50th percentile, while RMHP reported 0.1 fewer procedures.

HEDIS Specification: Frequency of Selected Procedures—Mastectomy, Ages 15 to 44 and 45 to 64, Female

The *Frequency of Selected Procedures* measure summarizes utilization of mastectomy for females between the ages of 15 and 44, and 45 and 64, which often shows wide regional variation and has generated concern regarding potentially inappropriate utilization.

Health Plan Ranking: Frequency of Selected Procedures—Mastectomy, Ages 15 to 44 and 45 to 64, Female

Table 6-25—Utilization of Services:
Frequency of Selected Procedures—Mastectomy Procedures/1,000 MM

IDSS	Health Plan Name	Code	Ages 15–44	Ages 45–64
7076	Denver Health Medicaid Choice	DHMC	0.0	0.1
4278	Rocky Mountain Health Plans	RMHP	0.1	0.2
9217	Primary Care Physician Program	PCPP	0.0	0.0
3455	Fee For Service	FFS	0.1	0.4
	2009 Colorado Medicaid Average		0.1	0.3
	2008 Colorado Medicaid Average		- -	- -
	2007 Colorado Medicaid Average		- -	- -
	National HEDIS 2008 Medicaid 50th Percentile		0.0	0.1

Table 6-25 shows the frequency of mastectomy procedures for females between the ages of 15 and 44, and 45 and 64. For females between the ages of 15 and 44, the 2009 Colorado Medicaid average and two of the health plans, RMHP and FFS, had more reported mastectomy procedures compared to the national HEDIS 2008 Medicaid 50th percentile of zero procedures per 1,000 member months. DHMC and PCPP did not perform any mastectomy procedures for females between the ages of 15 and 44. For females between the ages of 45 and 64, the 2009 Colorado Medicaid average and all of the health plans, except for PCPP, had the same number of or more mastectomy procedures per 1,000 member months compared to the national HEDIS 2008 Medicaid 50th percentile of 0.1 procedures. PCPP did not perform any mastectomy procedures for females between the ages of 45 and 64.

HEDIS Specification: Frequency of Selected Procedures—Lumpectomy, Ages 15 to 44 and 45 to 64, Female

The *Frequency of Selected Procedures* measure summarizes utilization of lumpectomy for females between the ages of 15 and 44, and 45 and 64, which often shows wide regional variation and has generated concern regarding potentially inappropriate utilization.

Health Plan Ranking: Frequency of Selected Procedures—Lumpectomy, Ages 15 to 44 and 45 to 64, Female

Table 6-26—Utilization of Services:
Frequency of Selected Procedures—Lumpectomy Procedures/1,000 MM

IDSS	Health Plan Name	Code	Ages 15–44	Ages 45–64
7076	Denver Health Medicaid Choice	DHMC	0.0	0.0
4278	Rocky Mountain Health Plans	RMHP	0.3	0.7
9217	Primary Care Physician Program	PCPP	0.1	0.4
3455	Fee For Service	FFS	0.1	0.7
	2009 Colorado Medicaid Average		0.1	0.6
	2008 Colorado Medicaid Average		- -	- -
	2007 Colorado Medicaid Average		- -	- -
	National HEDIS 2008 Medicaid 50th Percentile		0.2	0.5

Table 6-26 shows the frequency of lumpectomy procedures for females between the ages of 15 and 44, and 45 and 64. For females between the ages of 15 and 44, RMHP was the only health plan that had more reported lumpectomy procedures than the national HEDIS 2008 Medicaid 50th percentile of 0.2 procedures per 1,000 member months. The 2009 Colorado Medicaid Average, PCPP, and FFS all reported 0.1 fewer lumpectomy procedures than the national HEDIS 2008 Medicaid 50th percentile, while DHMC did not perform any lumpectomy procedures. For females between the ages of 45 and 64, the 2009 Colorado Medicaid average and two of the health plans, RMHP and FFS, had more lumpectomy procedures per 1,000 member months compared to the national HEDIS 2008 Medicaid 50th percentile of 0.5 procedures. PCPP reported 0.1 fewer procedures than the national HEDIS 2008 Medicaid 50th percentile, while DHMC did not perform any lumpectomy procedures for females between the ages of 45 and 64.

Antibiotic Utilization

The Institute of Medicine (IOM) has cited antibiotic resistance as one of the key microbial threats to health in the United States. The IOM is focused on promoting appropriate use of antimicrobials as a primary means to address this threat. The CDC has also cited antimicrobial resistance as a major concern, and the Get Smart: Know When Antibiotics Work campaign seeks to reduce the rising rate of antibiotic resistance. This campaign specifically targets the five respiratory conditions that in 1992 accounted for more than 75 percent of all office-based prescribing for all ages combined: otitis media, sinusitis, pharyngitis, bronchitis, and the common cold.[6-15] Although antibiotic prescribing rates have decreased, patients of all ages are prescribed more than 10 million courses of antibiotics annually for viral conditions that do not benefit from antibiotics, according to the CDC.

This measure summarizes outpatient utilization of antibiotic prescriptions (scrips) during the measurement year, stratified by age, for the following:

- ***Antibiotic Utilization—Average Scrips PMPY for Antibiotics***
- ***Antibiotic Utilization—Average Days Supplied per Antibiotic Scrip***
- ***Antibiotic Utilization—Average Scrips PMPY for Antibiotics of Concern***
- ***Antibiotic Utilization—Percentage of Antibiotics of Concern of All Antibiotic Scrips***

[6-15] Centers for Disease Control and Prevention. Get Smart: Know When Antibiotics Work. Available at: http://www.cdc.gov/getsmart/campaign-materials/about-campaign.html. Accessed on September 9, 2009.

HEDIS Specification: Antibiotic Utilization—Average Scrips PMPY for Antibiotics

The *Antibiotic Utilization* measure summarizes outpatient utilization of antibiotic prescriptions during the measurement year, stratified by age and gender, for the average number of antibiotic prescriptions per member per year.

Health Plan Ranking: Antibiotic Utilization—Average Scrips PMPY for Antibiotics

Table 6-27—Utilization of Services:
Antibiotic Utilization—Average Scrips PMPY for Antibiotics

IDSS	Health Plan Name	Code	Ages 0–9	Ages 10–17	Ages 18–34	Ages 35–49	Ages 50–64	Ages 65–74	Ages 75–84	Ages 85+	Total	Un-known
7076	Denver Health Medicaid Choice	DHMC	0.3	0.2	0.6	0.6	0.7	0.2	0.2	0.1	0.4	0.0
4278	Rocky Mountain Health Plans	RMHP	1.1	0.9	1.5	1.5	1.4	0.8	0.9	0.7	1.1	NA
9217	Primary Care Physician Program	PCPP	1.2	1.1	1.6	1.3	1.6	0.3	0.2	0.1	1.1	NA
3455	Fee For Service	FFS	0.9	0.7	1.2	1.0	0.9	0.2	0.1	0.0	0.9	NA
	2009 Colorado Medicaid Average		0.9	0.7	1.1	1.0	1.0	0.2	0.1	0.1	0.8	0.0
	2008 Colorado Medicaid Average		- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
	2007 Colorado Medicaid Average		- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
	National HEDIS 2008 Medicaid 50th Percentile		- -	- -	- -	- -	- -	- -	- -	- -	1.1	- -

Table 6-27 shows the average scrips per member per year for antibiotics for each age span and for the total of all age ranges. For the age-span total, RMHP and PCPP were the only two to have the same number of average scrips per member per year reported as the national HEDIS 2008 Medicaid 50th percentile of 1.1 average prescriptions per member per year for antibiotics. DHMC had 0.7 fewer scrips, while FFS had 0.2 fewer scrips and the 2009 Colorado Medicaid average had 0.3 fewer scrips compared to the national HEDIS 2008 Medicaid 50th percentile.

HEDIS Specification: Antibiotic Utilization—Average Days Supplied Per Antibiotic Scrip

The *Antibiotic Utilization* measure summarizes outpatient utilization of antibiotic prescriptions during the measurement year, stratified by age and gender, for the average days supplied per antibiotic prescription.

Health Plan Ranking: Antibiotic Utilization—Average Days Supplied Per Antibiotic Scrip

Table 6-28—Utilization of Services:
Antibiotic Utilization—Average Days Supplied per Antibiotic Scrip

IDSS	Health Plan Name	Code	Ages 0–9	Ages 10–17	Ages 18–34	Ages 35–49	Ages 50–64	Ages 65–74	Ages 75–84	Ages 85+	Total	Un-known
7076	Denver Health Medicaid Choice	DHMC	9.6	10.3	8.6	11.5	11.3	11.9	9.8	6.3	10.0	NA
4278	Rocky Mountain Health Plans	RMHP	9.7	11.3	9.7	10.3	11.5	12.5	13.6	10.6	10.3	NA
9217	Primary Care Physician Program	PCPP	9.7	11.6	11.8	10.7	10.8	10.3	9.0	11.1	10.7	NA
3455	Fee For Service	FFS	9.6	10.9	9.2	9.7	10.1	9.8	9.1	8.9	9.7	NA
	2009 Colorado Medicaid Average		9.6	10.9	9.3	9.9	10.4	10.3	10.1	9.5	9.8	.
	2008 Colorado Medicaid Average		- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
	2007 Colorado Medicaid Average		- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
	National HEDIS 2008 Medicaid 50th Percentile		- -	- -	- -	- -	- -	- -	- -	- -	9.4	- -

Table 6-28 shows the average days supplied per antibiotic prescription for each age span and for the total of all age ranges. For the age-span total, the 2009 Colorado Medicaid average and all of the health plans had more reported average days than the national HEDIS 2008 Medicaid 50th percentile of 9.4 average days supplied per antibiotic prescription.

HEDIS Specification: Antibiotic Utilization—Average Scrips PMPY for Antibiotics of Concern

The *Antibiotic Utilization* measure summarizes outpatient utilization of antibiotic prescriptions during the measurement year, stratified by age and gender, for the average prescriptions per member per year for antibiotics of concern.

Health Plan Ranking: Antibiotic Utilization—Average Scrips PMPY for Antibiotics of Concern

Table 6-29—Utilization of Services:
Antibiotic Utilization—Average Scrips PMPY for Antibiotics of Concern

IDSS	Health Plan Name	Code	Ages 0–9	Ages 10–17	Ages 18–34	Ages 35–49	Ages 50–64	Ages 65–74	Ages 75–84	Ages 85+	Total	Un-known
7076	Denver Health Medicaid Choice	DHMC	0.1	0.0	0.2	0.2	0.3	0.1	0.1	0.1	0.1	0.0
4278	Rocky Mountain Health Plans	RMHP	0.4	0.3	0.5	0.7	0.6	0.4	0.4	0.4	0.4	NA
9217	Primary Care Physician Program	PCPP	0.5	0.4	0.6	0.6	0.8	0.1	0.1	0.0	0.5	NA
3455	Fee For Service	FFS	0.4	0.2	0.4	0.5	0.4	0.1	0.1	0.0	0.3	NA
	2009 Colorado Medicaid Average		0.3	0.2	0.4	0.5	0.5	0.1	0.1	0.0	0.3	0.0
	2008 Colorado Medicaid Average		- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
	2007 Colorado Medicaid Average		- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
	National HEDIS 2008 Medicaid 50th Percentile		- -	- -	- -	- -	- -	- -	- -	- -	0.5	- -

Table 6-29 shows the average prescriptions per member per year for antibiotics of concern for each age span and for the total of all age ranges. For the age-span total, PCPP was the only health plan to have the same average scrips as the national HEDIS 2008 Medicaid 50th percentile of 0.5 average prescriptions per member per year for antibiotics of concern. The remaining health plans all had fewer average scrips per member per year for antibiotics of concern compared to the national HEDIS 2008 Medicaid 50th percentile.

HEDIS Specification: Antibiotic Utilization—Percentage of Antibiotics of Concern of All Antibiotic Scrips

The *Antibiotic Utilization* measure summarizes outpatient utilization of antibiotic prescriptions during the measurement year, stratified by age and gender, for the percentage of antibiotics of concern of all antibiotic prescriptions.

Health Plan Ranking: Antibiotic Utilization—Percentage of Antibiotics of Concern of All Antibiotic Scrips

Table 6-30—Utilization of Services:
Antibiotic Utilization—Percentage of Antibiotics of Concern of All Antibiotic Scrips

IDSS	Health Plan Name	Code	Ages 0–9	Ages 10–17	Ages 18–34	Ages 35–49	Ages 50–64	Ages 65–74	Ages 75–84	Ages 85+	Total	Un-known
7076	Denver Health Medicaid Choice	DHMC	18.0%	18.4%	27.3%	32.2%	39.4%	47.3%	48.5%	51.4%	25.6%	NA
4278	Rocky Mountain Health Plans	RMHP	36.1%	34.6%	35.8%	47.4%	45.5%	47.3%	47.9%	52.0%	38.8%	NA
9217	Primary Care Physician Program	PCPP	39.5%	40.0%	34.3%	44.3%	49.2%	53.3%	51.3%	45.0%	41.3%	NA
3455	Fee For Service	FFS	38.1%	35.5%	34.8%	45.5%	50.2%	51.3%	57.1%	49.1%	38.6%	NA
	2009 Colorado Medicaid Average		37.3%	35.4%	34.5%	44.7%	49.1%	50.8%	53.9%	50.2%	38.3%	.
	2008 Colorado Medicaid Average		- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
	2007 Colorado Medicaid Average		- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
	National HEDIS 2008 Medicaid 50th Percentile		- -	- -	- -	- -	- -	- -	- -	- -	41.6%	- -

Table 6-30 shows the percentage of antibiotics of concern of all antibiotic prescriptions for each age span and for the total of all age ranges. For the age-span total, the 2009 Colorado Medicaid average and all of the health plans had a lower percentage of antibiotics of concern of all antibiotic prescriptions than the national HEDIS 2008 Medicaid 50th percentile of 41.6 percent. PCPP had the highest reported percentage, with 41.3 percent of antibiotics of concern of all antibiotic prescriptions, while DHMC had the lowest reported percentage (25.6 percent) of antibiotics of concern of all antibiotic prescriptions.

Utilization of Services Findings and Recommendations

The report presents rates for measures in the Use of Services section for informational purposes only. The rates do not indicate the quality and timeliness of, and access to, 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 Use of Services measures rank health plans for their utilization of services. If a health plan's ED visits rate (for the *Ambulatory Care* measure) ranks lower than the 50th percentile, its members are accessing the ED less than other health plans nationwide. If the health plan ranks above the 50th percentile, ED utilization is higher than other health plans nationwide. Therefore, if the goal is to keep members out of the ED for unnecessary services, health plans should research the reasons for ED visits to identify ways to cut down on unnecessary use. For some health plans, however, high ED utilization may not indicate that members are accessing unnecessary services. In these cases, high rates of ED use may not indicate a problem with utilization of services. Each health plan has to make this determination based upon its population.

HSAG recommends that health plans review their results for Use of Services and identify whether a rate is higher or lower than expected. Focused analysis related to Use of Services could help identify the key drivers associated with the rates.

Key Findings and Recommendations

NCQA's IS standards are the guidelines used by certified HEDIS compliance auditors to assess a health plan's HEDIS reporting capabilities. For HEDIS 2009 there were seven IS standards on which the health plans were assessed. The following section summarizes the Colorado Medicaid health plans' performance on these standards for HEDIS 2009.

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

As in years past, all of the Colorado Medicaid health plans used NCQA-certified software to produce the HEDIS measures required by the Department. The software products were certified by NCQA for all of the measures included in the review. The use of NCQA-certified software helps to ensure the validity of the rates that were produced as NCQA tests and validates the programming logic for all of its certified vendors.

As required by NCQA, each of the Colorado Medicaid health plans contracted with an NCQA-licensed audit organization (LO) to perform the NCQA HEDIS Compliance Audit. HSAG audited the FFS and PCPP programs while the other health plans contracted with different LOs to perform their audits.

FFS, PCPP, RMHP, and DHMC were fully compliant with the overall standard *IS 1.0 Medical Service Data—Sound Coding Methods and Data Capture, Transfer, and Entry*. Compliance with this standard indicates that all of the health plans required and captured industry standard codes, could distinguish between primary and secondary diagnosis codes, were able to map nonstandard codes (if used) to industry standard codes, captured data on standard submission forms, had timely and accurate data entry processes and sufficient edits checks to ensure accurate entry of data, continually assessed data completeness, and monitored any contracted vendors involved in medical service data processing. RMHP was considered substantially compliant with IS Standard 1.2 due to limited system ability to capture more than eight diagnosis codes.

All of the Colorado Medicaid health plans were fully compliant with *IS 2.0 Enrollment Data—Data Capture, Transfer, and Entry*. This standard assesses that: a health plan has procedures in place to ensure accuracy of electronic transmission of membership data and procedures for submitting HEDIS-relevant information for data entry, data entry of enrollment data is timely and accurate and includes sufficient edit checks to ensure accurate entry, data completeness is continually assessed, and vendors (if used) are continually monitored. For Medicaid-specific audits, a health plan typically receives enrollment and eligibility files from the state; thus, there is minimal data entry of

enrollment data as the applications are not processed at the health plan level. The auditor assessed whether the health plans processed the State files in a timely manner and that processes were in place to reconcile the data files and ensure the membership data were complete and accurate. No issues were identified and no recommendations were made to the health plans on ways to improve enrollment file processing. In the previous year, DHMC was found to be substantially compliant with this standard due to insufficient audit processes. This year, however, an audit program was implemented for the membership department, which mitigated any concern related to data quality.[7-1]

All of the Colorado Medicaid health plans were compliant with all of the components of *IS 3.0 Practitioner Data—Data Capture, Transfer, and Entry*. This standard determines whether: provider specialties were fully documented and mapped to HEDIS provider specialties, electronic practitioner data were checked for accuracy and procedures were in place for submitting the HEDIS-relevant data for data entry, data entry processes were timely and accurate and edit checks were in place to ensure accurate entry of provider data, data completeness was monitored, and vendors were monitored as applicable. The auditors had no concerns with the health plans' methods for processing provider data and for supplying evidence that provider type could be identified in the data systems.

All of the Colorado Medicaid health plans were fully compliant with all components of *IS 4.0 Medical Record Review Processes—Training, Sampling, Abstraction, and Oversight*. A review of this standard ensures: that a health plan had abstraction tools that captured all fields relevant for HEDIS reporting and that electronic transmission followed industry standards and was accurate, that retrieval and abstraction of data from medical records was reliable and accurately performed, that data entry processes were timely and accurate and included sufficient edit checks, and that data completeness was continually monitored. Through a review of the submitted final audit reports it was evident that all of the health plans used a medical record vendor to assist with the medical record abstraction process. Medical record vendors can be used in several ways. A health plan can contract with a vendor to perform the entire medical record process, from tool development through data abstraction, or a health plan can contract with a vendor to use the vendor's abstraction tools and training services but use its own internal staff to perform the medical record abstraction. As part of the medical record process, the audit firm conducts medical record validation for selected measures. Each of the health plans passed the medical record validation process with 100 percent accuracy.

IS 5.0 Supplemental Data—Capture, Transfer, and Entry considers the use of additional data outside of the standard claims/encounter data and medical record data that a health plan uses to produce HEDIS rates. Supplemental data include data received and collected from vendors (e.g., laboratories, pharmacies, state health registries); hospitals and providers; or internal data systems created by a health plan to supplement encounter data (e.g., a disease or case management database). These types of data require a more detailed review by the auditor to ensure that the data are being reported and captured appropriately and that they comply with NCQA specifications for inclusion in HEDIS rate reporting. All of the health plans were fully compliant with this standard and followed all NCQA requirements for including supplemental data in HEDIS reporting. DHMC used two supplemental databases: one internal nonstandard and one external standard. FFS and

[7-1] Department of Health Care Policy and Financing, Report of Final HEDIS® Audit Assessment of Findings for 2009 Medicaid HEDIS® Reporting and Denver Health Medical Plan, Inc. NCQA HEDIS Compliance Audit™ Final Report. July 2009

PCPP used one external standard database. RMHP's audit report did not provide details on supplemental databases used by the health plan but found the health plan to be compliant with the standard. Auditors made recommendations to the health plans to continue looking for supplemental sources of data.

IS 6.0 Member Call Center Data—Capture, Transfer, and Entry was not applicable to the measures the Colorado Medicaid health plans were required report. This standard assesses the processes in place for monitoring member call center data used to report the *Call Abandonment* and *Call Answer Timeliness* measures.

All of the Colorado Medicaid health plans were fully compliant with *IS 7.0 Data Integration—Accurate HEDIS Reporting, Control Procedures that Support HEDIS Reporting Integrity*. The use of certified software ensures full compliance with this standard because a software vender must be audited and approved by NCQA to receive full certification status. Compliance with this standard also ensures that physical security, data access authorization, and disaster recovery facilities and fire protection procedures were in place. No issues were found during these reviews, and all health plans were fully capable of reporting the required Medicaid measures for HEDIS 2009.

Appendix A. Tabular Results for Measures by Health Plan

Appendix A presents tables showing results for the measures by health plan. Where applicable, the results provided for each measure include the eligible population and rate for each health plan; the 2007, 2008, and 2009 Colorado Medicaid weighted averages; and the national HEDIS 2008 Medicaid 50th percentile. The following is a list of the tables and the measures presented in each.

- Table A-1—*Childhood Immunization Status*
- Table A-2—*Well-Child Visits in the First 15 Months of Life*
- Table A-3—*Well-Child Visits in the Third, Fourth, Fifth, and Sixth Years of Life* and *Adolescent Well-Care Visits*
- Table A-4—*Prenatal and Postpartum Care*
- Table A-5—*Children's & Adolescents' Access to Primary Care Practitioners*
- Table A-6—*Adults' Access to Preventive/Ambulatory Health Services*
- Table A-7—*Annual Dental Visit*
- Table A-8—*Cholesterol Management for Patients With Cardiovascular Conditions*
- Table A-9—*Comprehensive Diabetes Care*
- Table A-10—*Comprehensive Diabetes Care (Continued)*
- Table A-11—*Use of Appropriate Medications for People With Asthma*
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- Table A-13—*Inpatient Utilization—General Hospital/Acute Care: Total Discharges per 1,000 MM*
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- Table A-15—*Inpatient Utilization—General Hospital/Acute Care: Total Average Length of Stay*
- Table A-16—*Inpatient Utilization—General Hospital/Acute Care: Medicine Discharges per 1,000 MM*
- Table A-17—*Inpatient Utilization—General Hospital/Acute Care: Medicine Days per 1,000 MM*
- Table A-18—*Inpatient Utilization—General Hospital/Acute Care: Medicine Average Length of Stay*
- Table A-19—*Inpatient Utilization—General Hospital/Acute Care: Surgery Discharges per 1,000 MM*
- Table A-20—*Inpatient Utilization—General Hospital/Acute Care: Surgery Days per 1,000 MM*
- Table A-21—*Inpatient Utilization—General Hospital/Acute Care: Surgery Average Length of Stay*
- Table A-22—*Inpatient Utilization—General Hospital/Acute Care: Maternity Discharges per 1,000 MM*

- Table A-23—*Inpatient Utilization—General Hospital/Acute Care: Maternity Days per 1,000 MM*
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- Table A-25—*Ambulatory Care: Outpatient Visits per 1,000 MM*
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- Table A-29—*Frequency of Selected Procedures: Myringotomy Procedures per 1,000 MM*
- Table A-30—*Frequency of Selected Procedures: Tonsillectomy Procedures per 1,000 MM*
- Table A-31—*Frequency of Selected Procedures: Non-Obstetric Dilation and Curettage Procedures per 1,000 MM*
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- Table A-33—*Frequency of Selected Procedures: Cholecystectomy Procedures per 1,000 MM*
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- Table A-35—*Frequency of Selected Procedures: Mastectomy Procedures per 1,000 MM*
- Table A-36—*Frequency of Selected Procedures: Lumpectomy Procedures per 1,000 MM*
- Table A-37—*Antibiotic Utilization: Average Scrips PMPY for Antibiotics*
- Table A-38—*Antibiotic Utilization: Average Days Supplied per Antibiotic Scrip*
- Table A-39—*Antibiotic Utilization: Average Scrips PMPY for Antibiotics of Concern*
- Table A-40—*Antibiotic Utilization: Percentage of Antibiotics of Concern of All Antibiotic Scrips*

Table A-1—Tabular Results for Measures by Health Plan: *Childhood Immunization Status*												
IDSS	Health Plan Name	Code	Eligible Population	DTP	IPV	MMR	HIB	HEP	VZV	PCV	Combo 2	Combo 3
7076	Denver Health Medicaid Choice	DHMC	1,146	88.1%	94.9%	96.1%	98.5%	96.4%	96.1%	90.8%	87.6%	87.1%
4278	Rocky Mountain Health Plans	RMHP	369	82.9%	94.0%	91.9%	96.2%	93.8%	91.1%	82.1%	78.3%	73.7%
9217	Primary Care Physician Program	PCPP	469	78.8%	89.3%	92.2%	97.1%	84.4%	92.2%	80.3%	70.1%	65.5%
3455	Fee For Service	FFS	10,715	74.9%	85.4%	86.6%	92.2%	84.2%	86.1%	70.6%	70.1%	63.3%
	2009 Colorado Medicaid Weighted Average		- -	76.5%	86.7%	87.8%	93.1%	85.6%	87.4%	73.1%	71.9%	65.8%
	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%
	National HEDIS 2008 Medicaid 50th Percentile		- -	80.5%	90.0%	91.9%	90.7%	90.3%	90.0%	76.4%	75.4%	68.6%

Table A-2—Tabular Results for Measures by Health Plan: *Well-Child Visits in the First 15 Months of Life*					
IDSS	**Health Plan Name**	**Code**	**Eligible Population**	**0 Visits Rate***	**6 or More Visits Rate**
7076	Denver Health Medicaid Choice	DHMC	521	1.9%	56.2%
4278	Rocky Mountain Health Plans	RMHP	313	0.0%	77.3%
9217	Primary Care Physician Program	PCPP	138	63.8%	15.9%
3455	Fee For Service	FFS	12,965	31.6%	29.7%
	2009 Colorado Medicaid Weighted Average		- -	30.1%	31.6%
	2008 Colorado Medicaid Weighted Average		- -	20.5%	37.7%
	2007 Colorado Medicaid Weighted Average		- -	20.3%	30.3%
	National HEDIS 2008 Medicaid 50th Percentile		- -	1.9%	57.5%

*A lower rate for this measure indicates better performance.

Table A-3—Tabular Results for Measures by Health Plan: *Well-Child Visits in the 3rd, 4th, 5th, and 6th Years of Life* and *Adolescent Well-Care Visits*						
			3rd–6th Years of Life		Adolescent	
IDSS	Health Plan Name	Code	Eligible Population	Rate	Eligible Population	Rate
7076	Denver Health Medicaid Choice	DHMC	4,423	63.0%	3,347	41.8%
4278	Rocky Mountain Health Plans	RMHP	1,262	63.5%	1,334	45.5%
9217	Primary Care Physician Program	PCPP	2,047	46.2%	3,102	28.0%
3455	Fee For Service	FFS	37,979	45.5%	36,175	27.5%
	2009 Colorado Medicaid Weighted Average		- -	47.7%	- -	29.2%
	2008 Colorado Medicaid Weighted Average		- -	48.5%	- -	17.4%
	2007 Colorado Medicaid Weighted Average		- -	28.7%	- -	25.2%
	National HEDIS 2008 Medicaid 50th Percentile		- -	68.2%	- -	42.1%

Table A-4—Tabular Results for Measures by Health Plan: *Prenatal and Postpartum Care*						
			Timeliness		Postpartum Care	
IDSS	Health Plan Name	Code	Eligible Population	Rate	Eligible Population	Rate
7076	Denver Health Medicaid Choice	DHMC	834	86.1%	834	59.1%
4278	Rocky Mountain Health Plans	RMHP	694	95.2%	694	71.9%
9217	Primary Care Physician Program	PCPP	294	70.2%	294	58.2%
3455	Fee For Service	FFS	15,024	64.7%	15,024	53.0%
	2009 Colorado Medicaid Weighted Average		- -	67.1%	- -	54.2%
	2008 Colorado Medicaid Weighted Average		- -	55.8%	- -	54.4%
	2007 Colorado Medicaid Weighted Average		- -	44.2%	- -	37.4%
	National HEDIS 2008 Medicaid 50th Percentile		- -	84.1%	- -	60.8%

Table A-5—Tabular Results for Measures by Health Plan: *Children's & Adolescents' Access to Primary Care Practitioners*										
			Ages 12 to 24 Months		Ages 25 Months to 6 Years		Ages 7 to 11 Years		Ages 12 to 19 Years	
IDSS	Health Plan Name	Code	Eligible Population	Rate	Eligible Population	Rate	Eligible Population	Rate	Eligible Population	Rate
7076	Denver Health Medicaid Choice	DHMC	1,558	90.6%	5,631	77.6%	1,664	81.9%	1,583	83.6%
4278	Rocky Mountain Health Plans	RMHP	468	98.3%	1,636	89.1%	769	92.3%	837	91.9%
9217	Primary Care Physician Program	PCPP	363	14.9%	2,495	22.8%	2,207	33.7%	2,356	38.7%
3455	Fee For Service	FFS	14,662	51.5%	47,977	40.4%	20,780	39.3%	21,740	39.7%
	2009 Colorado Medicaid Weighted Average		- -	55.6%	- -	44.6%	- -	43.2%	- -	43.9%
	2008 Colorado Medicaid Weighted Average		- -	- -	- -	- -	- -	- -	- -	- -
	2007 Colorado Medicaid Weighted Average		- -	- -	- -	- -	- -	- -	- -	- -
	National HEDIS 2008 Medicaid 50th Percentile		- -	95.8%	- -	86.5%	- -	87.8%	- -	84.5%

Table A-6—Tabular Results for Measures by Health Plan: *Adults' Access to Preventive/Ambulatory Health Services*								
			Ages 20 to 44 Years		Ages 45 to 64 Years		Ages 65 Years and Older	
IDSS	Health Plan Name	Code	Eligible Population	Rate	Eligible Population	Rate	Eligible Population	Rate
7076	Denver Health Medicaid Choice	DHMC	3,322	68.9%	2,781	70.7%	2,250	59.9%
4278	Rocky Mountain Health Plans	RMHP	1,451	86.1%	1,084	87.6%	1,067	95.2%
9217	Primary Care Physician Program	PCPP	3,503	81.8%	3,580	86.7%	3,185	81.9%
3455	Fee For Service	FFS	39,537	76.6%	21,568	79.5%	27,937	70.1%
	2009 Colorado Medicaid Weighted Average*		- -	76.7%	- -	79.8%	- -	71.3%
	2008 Colorado Medicaid Weighted Average		- -	66.7%	- -	55.2%	- -	21.8%
	2007 Colorado Medicaid Weighted Average		- -	- -	- -	- -	- -	- -
	National HEDIS 2008 Medicaid 50th Percentile		- -	79.6%	- -	85.7%	- -	81.9%

Note: There were statistically significant increases in the 2009 Colorado Medicaid weighted averages for the three age cohorts within this measure due to large increases for FFS and PCPP. These increases can be attributed to the inclusion of additional crossover claim types in the HEDIS calculations for FFS and PCPP this year. DHMC and RMHP rates for these measures were stable compared to last year's rates.

Table A-7—Tabular Results for Measures by Health Plan: *Annual Dental Visit*																
			Ages 2 to 3 Years		Ages 4 to 6 Years		Ages 7 to 10 Years		Ages 11 to 14 Years		Ages 15 to 18 Years		Ages 19 to 21 Years		Total	
IDSS	Health Plan Name	Code	Eligible Population	Rate	Eligible Population	Rate	Eligible Population	Rate	Eligible Population	Rate	Eligible Population	Rate	Eligible Population	Rate	Eligible Population	Rate
7076	Denver Health Medicaid Choice	DHMC	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
4278	Rocky Mountain Health Plans	RMHP	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
9217	Primary Care Physician Program	PCPP	919	46.9%	1,615	66.6%	2,391	68.5%	1,870	65.0%	1,423	57.6%	304	31.9%	8,522	61.9%
3455	Fee For Service	FFS	21,042	39.9%	27,879	57.1%	26,027	61.7%	19,393	56.5%	16,070	48.9%	5,988	28.0%	116,399	52.3%
	2009 Colorado Medicaid Weighted Average		- -	40.2%	- -	57.6%	- -	62.3%	- -	57.2%	- -	49.6%	- -	28.2%	- -	52.9%
	2008 Colorado Medicaid Weighted Average		- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
	2007 Colorado Medicaid Weighted Average		- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
	National HEDIS 2008 Medicaid 50th Percentile		- -	- -	- -	52.9%	- -	55.0%	- -	48.9%	- -	41.4%	- -	32.7%	- -	45.1%

Note: Denver Health Medicaid Choice and Rocky Mountain Health Plans were not required to report this measure.

Table A-8—Tabular Results for Measures by Health Plan: *Cholesterol Management for Patients With Cardiovascular Conditions*					
IDSS	**Health Plan Name**	**Code**	**Eligible Population**	**<100 LDL-C Level Rate**	**LDL-C Screening Rate**
7076	Denver Health Medicaid Choice	DHMC	91	75.9%	85.2%
4278	Rocky Mountain Health Plans	RMHP	83	45.8%	69.9%
9217	Primary Care Physician Program	PCPP	273	24.5%	58.6%
3455	Fee For Service	FFS	1,491	26.0%	57.2%
	2009 Colorado Medicaid Weighted Average		- -	29.0%	59.2%
	2008 Colorado Medicaid Weighted Average		- -	30.4%	71.7%
	2007 Colorado Medicaid Weighted Average		- -	29.7%	68.1%
	National HEDIS 2008 Medicaid 50th Percentile		- -	40.7%	79.0%

Table A-9—Tabular Results for Measures by Health Plan: *Comprehensive Diabetes Care*										
			Hemoglobin A1c (HbA1c) Testing		HbA1c Poor Control (>9.0%)		HbA1c Control (<8.0%)		Eye Exam (Retinal) Performed	
IDSS	Health Plan Name	Code	Eligible Population	Rate	Eligible Population	Rate	Eligible Population	Rate	Eligible Population	Rate
7076	Denver Health Medicaid Choice	DHMC	1,082	88.3%	1,082	25.8%	1,082	47.8%	1,082	50.7%
4278	Rocky Mountain Health Plans	RMHP	499	85.7%	499	25.8%	499	64.4%	499	62.0%
9217	Primary Care Physician Program	PCPP	1,749	66.9%	1,749	65.0%	1,749	29.2%	1,749	38.0%
3455	Fee For Service	FFS	10,467	57.7%	10,467	68.9%	10,467	26.5%	10,467	32.1%
	2009 Colorado Medicaid Weighted Average		- -	62.3%	- -	63.4%	- -	29.9%	- -	35.4%
	2008 Colorado Medicaid Weighted Average		- -	- -	- -	- -	- -	- -	- -	- -
	2007 Colorado Medicaid Weighted Average		- -	- -	- -	- -	- -	- -	- -	- -
	National HEDIS 2008 Medicaid 50th Percentile		- -	79.6%	- -	46.0%	- -	- -	- -	53.8%

Table A-10—Tabular Results for Measures by Health Plan: *Comprehensive Diabetes Care (Continued)*												
			LDL-C Screening Performed		LDL-C Control (<100 mg/dL)		Medical Attention for Nephropathy		Blood Pressure Control (<130/80 mm Hg)		Blood Pressure Control (<140/90 mm Hg)	
IDSS	Health Plan Name	Code	Eligible Population	Rate	Eligible Population	Rate	Eligible Population	Rate	Eligible Population	Rate	Eligible Population	Rate
7076	Denver Health Medicaid Choice	DHMC	1,082	76.0%	1,082	52.1%	1,082	83.1%	1,082	42.2%	1,082	66.8%
4278	Rocky Mountain Health Plans	RMHP	499	70.1%	499	43.8%	499	76.1%	499	47.0%	499	79.1%
9217	Primary Care Physician Program	PCPP	1,749	57.7%	1,749	23.6%	1,749	55.5%	1,749	24.1%	1,749	36.7%
3455	Fee For Service	FFS	10,467	49.1%	10,467	20.0%	10,467	59.6%	10,467	21.9%	10,467	36.5%
	2009 Colorado Medicaid Weighted Average		- -	53.1%	- -	23.8%	- -	61.5%	- -	24.7%	- -	40.4%
	2008 Colorado Medicaid Weighted Average		- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
	2007 Colorado Medicaid Weighted Average		- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
	National HEDIS 2008 Medicaid 50th Percentile		- -	73.2%	- -	33.1%	- -	76.1%	- -	29.7%	- -	58.2%

Table A-11—Tabular Results for Measures by Health Plan: *Use of Appropriate Medications for People With Asthma*										
			Ages 5 to 9 Years		Ages 10 to 17 Years		Ages 18 to 56 Years		Total	
IDSS	Health Plan Name	Code	Eligible Population	Rate	Eligible Population	Rate	Eligible Population	Rate	Eligible Population	Rate
7076	Denver Health Medicaid Choice	DHMC	48	97.9%	63	90.5%	138	80.4%	249	86.3%
4278	Rocky Mountain Health Plans	RMHP	30	90.0%	31	90.3%	75	88.0%	136	89.0%
9217	Primary Care Physician Program	PCPP	131	96.9%	215	86.0%	253	84.6%	599	87.8%
3455	Fee For Service	FFS	1,005	93.5%	1,094	89.8%	1,176	83.6%	3,275	88.7%
	2009 Colorado Medicaid Weighted Average		- -	94.0%	- -	89.2%	- -	83.7%	- -	88.4%
	2008 Colorado Medicaid Weighted Average		- -	- -	- -	- -	- -	- -	- -	- -
	2007 Colorado Medicaid Weighted Average		- -	- -	- -	- -	- -	- -	- -	- -
	National HEDIS 2008 Medicaid 50th Percentile		- -	91.8%	- -	89.5%	- -	85.8%	- -	88.7%

Table A-12—Tabular Results for Measures by Health Plan: *Annual Monitoring for Patients on Persistent Medications*												
			Total		ACE/ARB		Anticonvulsants		Digoxin		Diuretics	
IDSS	Health Plan Name	Code	Eligible Population	Rate	Eligible Population	Rate	Eligible Population	Rate	Eligible Population	Rate	Eligible Population	Rate
7076	Denver Health Medicaid Choice	DHMC	1,879	80.8%	799	86.6%	341	62.2%	19	NA	720	83.1%
4278	Rocky Mountain Health Plans	RMHP	884	71.4%	349	71.3%	181	69.6%	30	76.7%	324	71.9%
9217	Primary Care Physician Program	PCPP	2,179	82.2%	786	89.1%	684	70.0%	33	90.9%	676	86.2%
3455	Fee For Service	FFS	9,632	82.8%	4,237	87.2%	1,922	67.3%	146	88.4%	3,327	86.0%
	2009 Colorado Medicaid Weighted Average		- -	81.8%	- -	86.5%	- -	67.5%	- -	87.3%	- -	84.7%
	2008 Colorado Medicaid Weighted Average		- -	78.7%	- -	83.4%	- -	64.2%	- -	80.3%	- -	82.5%
	2007 Colorado Medicaid Weighted Average		- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
	National HEDIS 2008 Medicaid 50th Percentile		- -	81.6%	- -	84.4%	- -	67.4%	- -	86.6%	- -	82.6%

Table A-13—Tabular Results for Measures by Health Plan: *Inpatient Utilization—General Hospital/Acute Care: Total Discharges per 1,000 MM*											
IDSS	Health 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	2.3	1.3	3.6	14.8	14.6	6.1	6.6	6.4	5.7
4278	Rocky Mountain Health Plans	RMHP	5.2	2.2	9.3	32.7	21.5	22.0	26.5	27.2	13.9
9217	Primary Care Physician Program	PCPP	3.7	1.2	3.7	13.3	17.8	15.7	16.7	24.6	9.0
3455	Fee For Service	FFS	6.5	1.1	7.5	31.0	20.8	14.5	16.2	17.4	12.0
	2009 Colorado Medicaid Average		6.0	1.1	7.0	28.9	19.9	14.1	15.9	17.7	11.3
	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		- -	- -	- -	- -	- -	- -	- -	- -	- -
	National HEDIS 2008 Medicaid 50th Percentile		10.10	2.00	4.00	17.70	16.80	14.80	15.20	16.40	8.00

Table A-14—Tabular Results for Measures by Health Plan: *Inpatient Utilization—General Hospital/Acute Care: Total Days per 1,000 MM*											
IDSS	Health 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	10.0	2.8	9.9	48.3	76.4	39.5	30.2	39.2	21.7
4278	Rocky Mountain Health Plans	RMHP	19.1	5.4	22.1	75.9	101.2	141.7	151.2	140.7	46.5
9217	Primary Care Physician Program	PCPP	9.5	7.0	16.8	61.1	108.7	93.9	94.2	110.7	48.6
3455	Fee For Service	FFS	29.8	4.2	22.4	94.9	130.1	75.6	78.7	80.2	45.8
	2009 Colorado Medicaid Average		27.2	4.3	20.9	89.0	121.5	76.3	79.2	82.2	43.8
	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		- -	- -	- -	- -	- -	- -	- -	- -	- -
	National HEDIS 2008 Medicaid 50th Percentile		46.30	6.30	12.20	55.30	81.30	70.20	66.80	75.00	28.80

Table A-15—Tabular Results for Measures by Health Plan: *Inpatient Utilization—General Hospital/Acute Care: Total Average Length of Stay*											
IDSS	Health 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	4.4	2.2	2.8	3.3	5.2	6.5	4.6	6.1	3.8
4278	Rocky Mountain Health Plans	RMHP	3.7	2.4	2.4	2.3	4.7	6.4	5.7	5.2	3.3
9217	Primary Care Physician Program	PCPP	2.6	6.0	4.5	4.6	6.1	6.0	5.7	4.5	5.4
3455	Fee For Service	FFS	4.5	4.0	3.0	3.1	6.3	5.2	4.9	4.6	3.8
	2009 Colorado Medicaid Average		4.5	3.8	3.0	3.1	6.1	5.4	5.0	4.6	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		- -	- -	- -	- -	- -	- -	- -	- -	- -
	National HEDIS 2008 Medicaid 50th Percentile		4.10	2.90	3.00	3.10	4.90	5.20	5.30	5.00	3.60

Table A-16—Tabular Results for Measures by Health Plan: *Inpatient Utilization—General Hospital/Acute Care: Medicine Discharges per 1,000 MM*											
IDSS	Health 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	1.0	0.6	3.0	10.9	3.6	4.1	4.1	2.5
4278	Rocky Mountain Health Plans	RMHP	4.4	1.7	1.9	4.7	10.9	15.8	19.6	22.1	5.1
9217	Primary Care Physician Program	PCPP	3.2	0.8	1.1	6.1	12.3	10.5	11.7	20.2	5.4
3455	Fee For Service	FFS	5.7	0.7	0.9	4.3	14.7	9.9	12.1	14.2	4.1
	2009 Colorado Medicaid Average		5.3	0.8	0.9	4.3	13.9	9.6	11.8	14.4	4.0
	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		- -	- -	- -	- -	- -	- -	- -	- -	- -
	National HEDIS 2008 Medicaid 50th Percentile		8.50	1.70	1.10	3.90	11.70	11.00	10.50	12.60	3.60

Table A-17—Tabular Results for Measures by Health Plan: *Inpatient Utilization—General Hospital/Acute Care: Medicine Days per 1,000 MM*											
IDSS	Health 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	9.1	2.2	1.5	9.8	49.4	18.2	15.4	19.9	9.4
4278	Rocky Mountain Health Plans	RMHP	13.4	3.2	4.4	15.7	41.6	77.3	87.7	104.7	18.6
9217	Primary Care Physician Program	PCPP	7.9	2.9	7.8	26.5	63.3	55.9	49.1	86.6	26.1
3455	Fee For Service	FFS	23.4	2.3	4.0	17.1	69.5	43.3	53.3	59.0	17.3
	2009 Colorado Medicaid Average		21.4	2.4	4.0	17.0	65.9	43.5	51.6	60.4	17.2
	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		- -	- -	- -	- -	- -	- -	- -	- -	- -
	National HEDIS 2008 Medicaid 50th Percentile		32.60	4.60	3.10	14.70	50.40	50.20	38.50	53.40	13.40

Table A-18—Tabular Results for Measures by Health Plan: *Inpatient Utilization—General Hospital/Acute Care: Medicine Average Length of Stay*											
IDSS	Health 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	4.3	2.2	2.7	3.3	4.5	5.1	3.8	4.9	3.8
4278	Rocky Mountain Health Plans	RMHP	3.1	1.9	2.3	3.4	3.8	4.9	4.5	4.7	3.7
9217	Primary Care Physician Program	PCPP	2.5	3.6	7.1	4.4	5.2	5.3	4.2	4.3	4.8
3455	Fee For Service	FFS	4.1	3.2	4.3	4.0	4.7	4.4	4.4	4.1	4.3
	2009 Colorado Medicaid Average		4.1	3.0	4.3	3.9	4.7	4.5	4.4	4.2	4.3
	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		- -	- -	- -	- -	- -	- -	- -	- -	- -
	National HEDIS 2008 Medicaid 50th Percentile		3.50	2.70	3.00	3.60	4.30	4.40	4.50	4.60	3.70

Table A-19—Tabular Results for Measures by Health Plan: *Inpatient Utilization—General Hospital/Acute Care: Surgery Discharges per 1,000 MM*											
IDSS	Health 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	0.2	0.3	0.2	1.4	3.7	2.4	2.4	2.3	0.9
4278	Rocky Mountain Health Plans	RMHP	0.8	0.6	1.1	4.0	10.4	6.4	7.5	5.1	2.9
9217	Primary Care Physician Program	PCPP	0.5	0.4	0.9	2.4	5.6	5.2	5.0	4.4	2.4
3455	Fee For Service	FFS	0.8	0.3	0.5	2.2	6.1	4.6	4.0	3.2	1.6
	2009 Colorado Medicaid Average		0.7	0.3	0.5	2.2	5.9	4.5	4.1	3.3	1.6
	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		- -	- -	- -	- -	- -	- -	- -	- -	- -
	National HEDIS 2008 Medicaid 50th Percentile		1.10	0.30	0.50	1.90	5.00	4.00	3.30	1.50	1.20

Table A-20—Tabular Results for Measures by Health Plan: *Inpatient Utilization—General Hospital/Acute Care: Surgery Days per 1,000 MM*											
IDSS	Health 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	0.9	0.6	1.7	11.5	26.5	19.2	14.2	19.3	6.3
4278	Rocky Mountain Health Plans	RMHP	5.7	2.2	5.2	14.2	58.2	64.4	63.4	36.0	16.3
9217	Primary Care Physician Program	PCPP	1.6	4.1	3.7	22.3	45.4	37.9	45.1	24.1	19.2
3455	Fee For Service	FFS	6.4	1.9	3.0	15.3	60.5	32.3	25.3	21.2	12.4
	2009 Colorado Medicaid Average		5.8	1.9	3.0	15.3	55.4	32.7	27.6	21.8	12.4
	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		- -	- -	- -	- -	- -	- -	- -	- -	- -
	National HEDIS 2008 Medicaid 50th Percentile		8.10	1.40	2.10	8.70	31.30	24.30	21.60	8.50	6.30

Table A-21—Tabular Results for Measures by Health Plan: *Inpatient Utilization—General Hospital/Acute Care: Surgery Average Length of Stay*											
IDSS	Health 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	5.2	2.2	7.5	8.2	7.2	7.9	6.0	8.3	6.8
4278	Rocky Mountain Health Plans	RMHP	7.3	3.8	4.8	3.5	5.6	10.0	8.4	7.1	5.6
9217	Primary Care Physician Program	PCPP	3.3	11.0	4.3	9.2	8.2	7.2	9.1	5.5	8.1
3455	Fee For Service	FFS	7.8	6.1	5.5	6.9	10.0	7.1	6.3	6.7	7.7
	2009 Colorado Medicaid Average		7.7	5.9	5.4	6.9	9.4	7.3	6.7	6.7	7.6
	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		- -	- -	- -	- -	- -	- -	- -	- -	- -
	National HEDIS 2008 Medicaid 50th Percentile		7.40	4.20	4.20	4.70	6.40	6.90	7.10	6.00	5.50

Table A-22—Tabular Results for Measures by Health Plan: *Inpatient Utilization—General Hospital/Acute Care: Maternity Discharges per 1,000 MM*						
IDSS	Health Plan Name	Code	Ages 10–19	Ages 20–44	Ages 45–64	Total
7076	Denver Health Medicaid Choice	DHMC	2.8	10.4	0.0	5.0
4278	Rocky Mountain Health Plans	RMHP	6.3	24.0	0.2	12.2
9217	Primary Care Physician Program	PCPP	1.8	4.8	0.0	2.2
3455	Fee For Service	FFS	6.1	24.5	0.1	13.0
	2009 Colorado Medicaid Average		5.5	22.4	0.0	11.6
	2008 Colorado Medicaid Average		5.6	23.2	0.1	11.9
	2007 Colorado Medicaid Average		- -	- -	- -	- -
	National HEDIS 2008 Medicaid 50th Percentile		2.30	10.50	0.10	5.50

Table A-23—Tabular Results for Measures by Health Plan: *Inpatient Utilization—General Hospital/Acute Care: Maternity Days per 1,000 MM*						
IDSS	Health Plan Name	Code	Ages 10–19	Ages 20–44	Ages 45–64	Total
7076	Denver Health Medicaid Choice	DHMC	6.7	27.0	0.5	13.0
4278	Rocky Mountain Health Plans	RMHP	12.5	46.0	1.4	23.8
9217	Primary Care Physician Program	PCPP	5.3	12.3	0.0	6.0
3455	Fee For Service	FFS	15.4	62.6	0.1	33.2
	2009 Colorado Medicaid Average		13.9	56.7	0.2	29.3
	2008 Colorado Medicaid Average		14.2	56.2	0.6	29.2
	2007 Colorado Medicaid Average		- -	- -	- -	- -
	National HEDIS 2008 Medicaid 50th Percentile		6.20	27.40	0.20	14.20

Table A-24—Tabular Results for Measures by Health Plan: *Inpatient Utilization—General Hospital/Acute Care: Maternity Average Length of Stay*						
IDSS	Health Plan Name	Code	Ages 10–19	Ages 20–44	Ages 45–64	Total
7076	Denver Health Medicaid Choice	DHMC	2.4	2.6	10.5	2.6
4278	Rocky Mountain Health Plans	RMHP	2.0	1.9	7.0	1.9
9217	Primary Care Physician Program	PCPP	3.0	2.5	NA	2.7
3455	Fee For Service	FFS	2.5	2.6	2.3	2.6
	2009 Colorado Medicaid Average		2.5	2.5	3.7	2.5
	2008 Colorado Medicaid Average		2.5	2.4	4.6	2.4
	2007 Colorado Medicaid Average		- -	- -	- -	- -
	National HEDIS 2008 Medicaid 50th Percentile		2.60	2.60	3.00	2.60

Table A-25—Tabular Results for Measures by Health Plan: *Ambulatory Care: Outpatient Visits per 1,000 MM*											
IDSS	Health 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	293.0	147.0	160.9	293.9	363.6	401.6	326.4	185.1	219.9
4278	Rocky Mountain Health Plans	RMHP	684.6	327.3	291.4	445.8	806.6	771.7	865.8	714.8	461.3
9217	Primary Care Physician Program	PCPP	640.6	298.8	296.4	439.7	660.5	608.3	592.2	543.3	434.2
3455	Fee For Service	FFS	740.5	273.1	253.0	368.8	561.2	484.5	461.7	391.1	364.2
	2009 Colorado Medicaid Average		694.4	262.7	248.6	369.1	561.1	498.5	477.6	401.8	358.1
	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		- -	- -	- -	- -	- -	- -	- -	- -	- -
	National HEDIS 2008 Medicaid 50th Percentile		687.70	271.30	203.60	361.40	539.10	436.10	408.20	269.80	324.00

Table A-26—Tabular Results for Measures by Health Plan: *Ambulatory Care: Emergency Department Visits per 1,000 MM*											
IDSS	Health 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	7.5	5.3	6.6	15.4	20.7	14.2	11.8	11.4	9.4
4278	Rocky Mountain Health Plans	RMHP	57.6	36.8	40.4	98.6	96.3	63.5	49.8	63.6	59.2
9217	Primary Care Physician Program	PCPP	101.0	49.0	48.5	88.5	86.5	52.3	47.9	52.2	63.8
3455	Fee For Service	FFS	100.6	48.4	45.2	93.7	85.1	47.0	48.1	44.2	63.9
	2009 Colorado Medicaid Average		90.5	43.5	41.8	87.6	79.3	45.3	45.8	44.1	58.8
	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		- -	- -	- -	- -	- -	- -	- -	- -	- -
	National HEDIS 2008 Medicaid 50th Percentile		93.50	48.30	40.00	94.10	72.30	32.80	23.60	25.30	60.20

Table A-27—Tabular Results for Measures by Health Plan: *Ambulatory Care: Ambulatory Surgery Procedures per 1,000 MM*											
IDSS	Health 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	10.7	14.7	6.0	18.2	29.6	44.0	37.5	19.3	16.5
4278	Rocky Mountain Health Plans	RMHP	4.6	6.3	6.8	22.7	32.1	27.8	20.5	14.5	13.6
9217	Primary Care Physician Program	PCPP	4.9	5.4	5.8	16.1	30.0	27.6	26.9	13.5	14.5
3455	Fee For Service	FFS	5.4	5.2	5.3	16.9	28.9	25.2	18.8	8.7	11.0
	2009 Colorado Medicaid Average		5.9	6.2	5.5	17.2	29.2	27.1	20.8	9.4	11.7
	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		- -	- -	- -	- -	- -	- -	- -	- -	- -
	National HEDIS 2008 Medicaid 50th Percentile		2.70	3.00	2.10	9.60	21.40	16.10	13.50	4.40	5.40

Table A-28—Tabular Results for Measures by Health Plan: *Ambulatory Care: Observation Room Stays per 1,000 MM*											
IDSS	Health 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	1.3	0.5	0.8	2.1	0.0	0.0	0.0	0.0	0.8
4278	Rocky Mountain Health Plans	RMHP	1.7	0.5	0.9	2.3	1.4	2.6	1.0	2.0	1.2
9217	Primary Care Physician Program	PCPP	1.4	0.5	1.5	2.2	2.0	2.4	3.2	0.2	1.6
3455	Fee For Service	FFS	2.3	0.5	2.4	6.8	2.5	1.8	1.8	1.9	2.6
	2009 Colorado Medicaid Average		2.2	0.5	2.1	6.1	2.1	1.8	1.8	1.8	2.3
	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		- -	- -	- -	- -	- -	- -	- -	- -	- -
	National HEDIS 2008 Medicaid 50th Percentile		1.30	0.30	1.00	4.80	1.70	0.20	0.10	0.00	1.70

Table A-29—Tabular Results for Measures by Health Plan: *Frequency of Selected Procedures—Myringotomy Procedures per 1,000 MM*				
IDSS	**Health Plan Name**	**Code**	**Ages 0–4**	**Ages 5–19**
7076	Denver Health Medicaid Choice	DHMC	0.0	0.0
4278	Rocky Mountain Health Plans	RMHP	3.9	0.5
9217	Primary Care Physician Program	PCPP	3.0	0.7
3455	Fee For Service	FFS	2.5	0.4
	2009 Colorado Medicaid Average		2.3	0.4
	2008 Colorado Medicaid Average		- -	- -
	2007 Colorado Medicaid Average		- -	- -
	National HEDIS 2008 Medicaid 50th Percentile		2.30	0.40

Table A-30—Tabular Results for Measures by Health Plan: *Frequency of Selected Procedures—Tonsillectomy Procedures per 1,000 MM*				
IDSS	**Health Plan Name**	**Code**	**Ages 0–9**	**Ages 10–19**
7076	Denver Health Medicaid Choice	DHMC	0.0	0.0
4278	Rocky Mountain Health Plans	RMHP	1.0	0.9
9217	Primary Care Physician Program	PCPP	0.9	0.6
3455	Fee For Service	FFS	0.8	0.5
	2009 Colorado Medicaid Average		0.7	0.4
	2008 Colorado Medicaid Average		- -	- -
	2007 Colorado Medicaid Average		- -	- -
	National HEDIS 2008 Medicaid 50th Percentile		0.70	0.30

Table A-31—Tabular Results for Measures by Health Plan: *Frequency of Selected Procedures—Non-Obstetric Dilation and Curettage Procedures per 1,000 MM*				
IDSS	**Health Plan Name**	**Code**	**Ages 15–44**	**Ages 45–64**
7076	Denver Health Medicaid Choice	DHMC	0.0	0.0
4278	Rocky Mountain Health Plans	RMHP	0.2	0.4
9217	Primary Care Physician Program	PCPP	0.2	0.2
3455	Fee For Service	FFS	0.2	0.2
	2009 Colorado Medicaid Average		0.2	0.2
	2008 Colorado Medicaid Average		- -	- -
	2007 Colorado Medicaid Average		- -	- -
	National HEDIS 2008 Medicaid 50th Percentile		0.20	0.20

Table A-32—Tabular Results for Measures by Health Plan: *Frequency of Selected Procedures—Hysterectomy Procedures per 1,000 MM*						
IDSS	Health Plan Name	Code	Abdominal—Ages 15–44	Abdominal—Ages 45–64	Vaginal—Ages 15–44	Vaginal—Ages 45–64
7076	Denver Health Medicaid Choice	DHMC	0.1	0.2	0.1	0.1
4278	Rocky Mountain Health Plans	RMHP	0.3	0.4	0.9	0.4
9217	Primary Care Physician Program	PCPP	0.3	0.4	0.4	0.2
3455	Fee For Service	FFS	0.3	0.4	0.4	0.4
	2009 Colorado Medicaid Average		0.3	0.4	0.4	0.4
	2008 Colorado Medicaid Average		- -	- -	- -	- -
	2007 Colorado Medicaid Average		- -	- -	- -	- -
	National HEDIS 2008 Medicaid 50th Percentile		0.20	0.50	0.10	0.20

Table A-33—Tabular Results for Measures by Health Plan: *Frequency of Selected Procedures—Cholecystectomy Procedures per 1,000 MM*								
IDSS	Health Plan Name	Code	Closed—Females, Ages 15–44	Closed—Females, Ages 45–64	Closed—Males, Ages 30–64	Open—Females, Ages 15–44	Open—Females, Ages 45–64	Open—Males, Ages 30–64
7076	Denver Health Medicaid Choice	DHMC	0.3	0.1	0.1	0.0	0.0	0.0
4278	Rocky Mountain Health Plans	RMHP	1.5	1.3	0.3	0.0	0.2	0.0
9217	Primary Care Physician Program	PCPP	1.0	1.0	0.6	0.0	0.2	0.0
3455	Fee For Service	FFS	1.3	1.0	0.5	0.0	0.1	0.2
	2009 Colorado Medicaid Average		1.2	1.0	0.5	0.0	0.1	0.2
	2008 Colorado Medicaid Average		- -	- -	- -	- -	- -	- -
	2007 Colorado Medicaid Average		- -	- -	- -	- -	- -	- -
	National HEDIS 2008 Medicaid 50th Percentile		0.70	0.60	0.20	0.00	0.00	0.00

Table A-34—Tabular Results for Measures by Health Plan: *Frequency of Selected Procedures—Back Surgery Procedures per 1,000 MM*						
IDSS	**Health Plan Name**	**Code**	**Females, Ages 20–44**	**Females, Ages 45–64**	**Males, Ages 20–44**	**Males, Ages 45–64**
7076	Denver Health Medicaid Choice	DHMC	0.1	0.3	0.2	0.2
4278	Rocky Mountain Health Plans	RMHP	0.6	1.4	1.3	0.4
9217	Primary Care Physician Program	PCPP	0.3	1.1	0.4	0.6
3455	Fee For Service	FFS	0.3	1.0	0.6	1.1
	2009 Colorado Medicaid Average		0.3	0.9	0.6	0.9
	2008 Colorado Medicaid Average		- -	- -	- -	- -
	2007 Colorado Medicaid Average		- -	- -	- -	- -
	National HEDIS 2008 Medicaid 50th Percentile		0.20	0.50	0.40	0.50

Table A-35—Tabular Results for Measures by Health Plan: *Frequency of Selected Procedures—Mastectomy Procedures per 1,000 MM*				
IDSS	**Health Plan Name**	**Code**	**Ages 15–44**	**Ages 45–64**
7076	Denver Health Medicaid Choice	DHMC	0.0	0.1
4278	Rocky Mountain Health Plans	RMHP	0.1	0.2
9217	Primary Care Physician Program	PCPP	0.0	0.0
3455	Fee For Service	FFS	0.1	0.4
	2009 Colorado Medicaid Average		0.1	0.3
	2008 Colorado Medicaid Average		- -	- -
	2007 Colorado Medicaid Average		- -	- -
	National HEDIS 2008 Medicaid 50th Percentile		0.00	0.10

Table A-36—Tabular Results for Measures by Health Plan: *Frequency of Selected Procedures—Lumpectomy Procedures per 1,000 MM*				
IDSS	**Health Plan Name**	**Code**	**Ages 15–44**	**Ages 45–64**
7076	Denver Health Medicaid Choice	DHMC	0.0	0.0
4278	Rocky Mountain Health Plans	RMHP	0.3	0.7
9217	Primary Care Physician Program	PCPP	0.1	0.4
3455	Fee For Service	FFS	0.1	0.7
	2009 Colorado Medicaid Average		0.1	0.6
	2008 Colorado Medicaid Average		- -	- -
	2007 Colorado Medicaid Average		- -	- -
	National HEDIS 2008 Medicaid 50th Percentile		0.20	0.50

Table A-37—Tabular Results for Measures by Health Plan: *Antibiotic Utilization—Average Scrips PMPY for Antibiotics*												
IDSS	Health Plan Name	Code	Ages 0–9	Ages 10–17	Ages 18–34	Ages 35–49	Ages 50–64	Ages 65–74	Ages 75–84	Ages 85+	Total	Unknown
7076	Denver Health Medicaid Choice	DHMC	0.3	0.2	0.6	0.6	0.7	0.2	0.2	0.1	0.4	NA
4278	Rocky Mountain Health Plans	RMHP	1.1	0.9	1.5	1.5	1.4	0.8	0.9	0.7	1.1	NA
9217	Primary Care Physician Program	PCPP	1.2	1.1	1.6	1.3	1.6	0.3	0.2	0.1	1.1	NA
3455	Fee For Service	FFS	0.9	0.7	1.2	1.0	0.9	0.2	0.1	0.0	0.9	NA
	2009 Colorado Medicaid Average		0.9	0.7	1.1	1.0	1.0	0.2	0.1	0.1	0.8	NA
	2008 Colorado Medicaid Average		- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
	2007 Colorado Medicaid Average		- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
	National HEDIS 2008 Medicaid 50th Percentile		- -	- -	- -	- -	- -	- -	- -	- -	1.10	- -

Table A-38—Tabular Results for Measures by Health Plan: *Antibiotic Utilization—Average Days Supplied per Antibiotic Scrip*												
IDSS	Health Plan Name	Code	Ages 0–9	Ages 10–17	Ages 18–34	Ages 35–49	Ages 50–64	Ages 65–74	Ages 75–84	Ages 85+	Total	Unknown
7076	Denver Health Medicaid Choice	DHMC	9.6	10.3	8.6	11.5	11.3	11.9	9.8	6.3	10.0	NA
4278	Rocky Mountain Health Plans	RMHP	9.7	11.3	9.7	10.3	11.5	12.5	13.6	10.6	10.3	NA
9217	Primary Care Physician Program	PCPP	9.7	11.6	11.8	10.7	10.8	10.3	9.0	11.1	10.7	NA
3455	Fee For Service	FFS	9.6	10.9	9.2	9.7	10.1	9.8	9.1	8.9	9.7	NA
	2009 Colorado Medicaid Average		9.6	10.9	9.3	9.9	10.4	10.3	10.1	9.5	9.8	NA
	2008 Colorado Medicaid Average		- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
	2007 Colorado Medicaid Average		- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
	National HEDIS 2008 Medicaid 50th Percentile		- -	- -	- -	- -	- -	- -	- -	- -	9.40	- -

Table A-39—Tabular Results for Measures by Health Plan: *Antibiotic Utilization—Average Scrips PMPY for Antibiotics of Concern*												
IDSS	Health Plan Name	Code	Ages 0–9	Ages 10–17	Ages 18–34	Ages 35–49	Ages 50–64	Ages 65–74	Ages 75–84	Ages 85+	Total	Unknown
7076	Denver Health Medicaid Choice	DHMC	0.1	0.0	0.2	0.2	0.3	0.1	0.1	0.1	0.1	NA
4278	Rocky Mountain Health Plans	RMHP	0.4	0.3	0.5	0.7	0.6	0.4	0.4	0.4	0.4	NA
9217	Primary Care Physician Program	PCPP	0.5	0.4	0.6	0.6	0.8	0.1	0.1	0.0	0.5	NA
3455	Fee For Service	FFS	0.4	0.2	0.4	0.5	0.4	0.1	0.1	0.0	0.3	NA
	2009 Colorado Medicaid Average		0.3	0.2	0.4	0.5	0.5	0.1	0.1	0.0	0.3	NA
	2008 Colorado Medicaid Average		- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
	2007 Colorado Medicaid Average		- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
	National HEDIS 2008 Medicaid 50th Percentile		- -	- -	- -	- -	- -	- -	- -	- -	0.50	- -

Table A-40—Tabular Results for Measures by Health Plan: *Antibiotic Utilization—Percentage of Antibiotics of Concern of All Antibiotic Scrips*												
IDSS	Health Plan Name	Code	Ages 0–9	Ages 10–17	Ages 18–34	Ages 35–49	Ages 50–64	Ages 65–74	Ages 75–84	Ages 85+	Total	Unknown
7076	Denver Health Medicaid Choice	DHMC	18.0%	18.4%	27.3%	32.2%	39.4%	47.3%	48.5%	51.4%	25.6%	NA
4278	Rocky Mountain Health Plans	RMHP	36.1%	34.6%	35.8%	47.4%	45.5%	47.3%	47.9%	52.0%	38.8%	NA
9217	Primary Care Physician Program	PCPP	39.5%	40.0%	34.3%	44.3%	49.2%	53.3%	51.3%	45.0%	41.3%	NA
3455	Fee For Service	FFS	38.1%	35.5%	34.8%	45.5%	50.2%	51.3%	57.1%	49.1%	38.6%	NA
	2009 Colorado Medicaid Average		37.3%	35.4%	34.5%	44.7%	49.1%	50.8%	53.9%	50.2%	38.3%	NA
	2008 Colorado Medicaid Average		- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
	2007 Colorado Medicaid Average		- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
	National HEDIS 2008 Medicaid 50th Percentile		- -	- -	- -	- -	- -	- -	- -	- -	41.6%	- -

Appendix B. National HEDIS 2008 Medicaid Percentiles

Appendix B provides the national HEDIS Medicaid percentiles published by NCQA using prior-year rates (derived from audit/review year 2008, which used data collected during measurement year 2007). This information is helpful to evaluate current health 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 2008 Medicaid Percentiles—Pediatric Care					
Measure	**10th Percentile**	**25th Percentile**	**50th Percentile**	**75th Percentile**	**90th Percentile**
Childhood Immunization Status—DTaP	66.3	74.2	80.5	84.5	87.2
Childhood Immunization Status—IPV	76.9	85.9	90.0	92.9	95.5
Childhood Immunization Status—MMR	84.6	88.6	91.9	94.2	95.4
Childhood Immunization Status—HiB	76.6	86.6	90.7	93.2	95.4
Childhood Immunization Status—Hepatitis B	76.2	85.4	90.3	93.9	95.8
Childhood Immunization Status—VZV	82.0	86.3	90.0	92.9	94.4
Childhood Immunization Status—Pneumococcal Conjugate	60.6	69.3	76.4	81.5	85.0
Childhood Immunization Status—Combination #2	57.2	67.6	75.4	80.0	84.7
Childhood Immunization Status—Combination #3	50.1	59.9	68.6	74.3	78.2
*Well-Child Visits in the First 15 Months—Zero Visits**	0.6	1.0	1.9	3.1	6.8
Well-Child Visits in the First 15 Months—Six or More Visits	29.0	44.5	57.5	65.4	73.7
Well-Child in the Third, Fourth, Fifth, and Sixth Years of Life	52.3	59.8	68.2	74.0	78.9
Adolescent Well-Care Visits	27.2	35.9	42.1	51.4	56.7

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

Table B-2—National HEDIS 2008 Medicaid Percentiles—Access to Care					
Measure	**10th Percentile**	**25th Percentile**	**50th Percentile**	**75th Percentile**	**90th Percentile**
Prenatal and Postpartum Care—Timeliness of Prenatal Care	68.4	76.6	84.1	88.6	91.4
Prenatal and Postpartum Care—Postpartum Care	47.0	54.0	60.8	65.8	70.6
Adults' Access to Preventive/Ambulatory Services—Ages 20–44 Years	60.7	71.6	79.6	84.8	87.6
Adults' Access to Preventive/Ambulatory Services—Ages 45–64 Years	71.2	79.3	85.7	88.3	90.2
Adults' Access to Preventive/Ambulatory Services—Ages 65 Years and Older	56.4	74.6	81.9	87.8	93.5
Children's & Adolescents' Access to Primary Care Practitioners—Ages 12 to 24 Months	87.7	93.2	95.8	97.4	98.4
Children's & Adolescents' Access to Primary Care Practitioners—Ages 25 Months to 6 Years	74.2	82.3	86.5	89.4	92.0
Children's & Adolescents' Access to Primary Care Practitioners—Ages 7 to 11 Years	75.5	82.2	87.8	91.2	94.1
Children's & Adolescents' Access to Primary Care Practitioners—Ages 12 to 19 Years	70.6	78.1	84.5	90.0	91.9
*Annual Dental Visit—Ages 2 to 3 Years**	--	--	--	--	--
Annual Dental Visit—Ages 4 to 6 Years	33.5	44.5	52.9	63.7	70.2
Annual Dental Visit—Ages 7 to 10 Years	39.9	47.3	55.0	61.1	73.1
Annual Dental Visit—Ages 11 to 14 Years	34.1	41.5	48.9	55.0	66.8
Annual Dental Visit—Ages 15 to 18 Years	28.7	35.3	41.4	47.7	55.2
Annual Dental Visit—Ages 19 to 21 Years	15.1	25.2	32.7	39.1	41.6
Annual Dental Visit—Total	27.5	36.4	45.1	51.3	61.3

*Audit means and percentiles were not published by NCQA for this age cohort.

Table B-3—National HEDIS 2008 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	61.3	73.8	79.0	82.2	86.3
Cholesterol Management for Patients With Cardiovascular Conditions—LDL-C Level <100	21.2	30.9	40.7	46.6	52.9
Comprehensive Diabetes Care—Hemoglobin A1c (HbA1c) Testing	65.7	74.2	79.6	85.6	88.8
*Comprehensive Diabetes Care—HbA1c Poor Control (>9.0%)**	32.4	37.7	46.0	52.5	69.8
Comprehensive Diabetes Care—Eye Exam (Retinal) Performed	24.2	39.7	53.8	62.5	67.6
Comprehensive Diabetes Care—LDL-C Screening Performed	58.6	66.7	73.2	78.6	81.8
Comprehensive Diabetes Care—LDL-C Control (<100mg/dL)	16.5	25.1	33.1	37.9	42.6
Comprehensive Diabetes Care—Medical Attention for Nephropathy	59.7	67.9	76.1	80.5	85.4
Comprehensive Diabetes Care—Blood Pressure Control (<130/80 mm Hg)	16.3	25.8	29.7	36.5	41.2
Comprehensive Diabetes Care—Blood Pressure Control (<140/90 mm Hg)	37.0	49.6	58.2	65.7	71.3
Use of Appropriate Medications for People With Asthma—Ages 5 to 9 Years	82.8	88.7	91.8	94.5	96.1
Use of Appropriate Medications for People With Asthma—Ages 10 to 17 Years	81.0	86.1	89.5	91.5	93.3
Use of Appropriate Medications for People With Asthma—Ages 18 to 56 Years	77.6	81.4	85.8	88.9	90.7
Use of Appropriate Medications for People With Asthma—Total	80.4	86.1	88.7	90.6	91.9
Annual Monitoring for Patients on Persistent Medications—ACE Inhibitors or ARBs	77.3	80.0	84.4	86.9	88.8
Annual Monitoring for Patients on Persistent Medications—Digoxin	79.4	82.1	86.6	90.9	92.5
Annual Monitoring for Patients on Persistent Medications—Diuretics	74.3	78.6	82.6	86.0	88.6
Annual Monitoring for Patients on Persistent Medications—Anticonvulsants	55.2	61.8	67.4	71.1	76.3
Annual Monitoring for Patients on Persistent Medications—Total	73.5	77.3	81.6	84.0	86.5

*For the *Comprehensive Diabetes Care—HbA1c Poor Control (>9.0%)* indicator, a lower rate represents better performance.

Note: *Comprehensive Diabetes Care—HbA1c Control (<8.0%)* is a first-year indicator and there is no comparative date for this rate.

Table B-4—National HEDIS 2008 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	**5.7**	**6.6**	**8.0**	**9.8**	**11.4**
Inpatient Utilization—General Hospital/Acute Care—Total Inpatient: Total Days per 1,000 MM	**16.6**	**23.3**	**28.8**	**36.2**	**44.3**
Inpatient Utilization—General Hospital/Acute Care—Total Inpatient: Total Average Length of Stay	**2.8**	**3.2**	**3.6**	**4.0**	**4.3**
Inpatient Utilization—General Hospital/Acute Care—Medicine: Total Discharges per 1,000 MM	**1.7**	**2.5**	**3.6**	**4.5**	**5.6**
Inpatient Utilization—General Hospital/Acute Care—Medicine: Total Days per 1,000 MM	**5.2**	**8.7**	**13.4**	**18.1**	**22.7**
Inpatient Utilization—General Hospital/Acute Care—Medicine: Total Average Length of Stay	**2.8**	**3.2**	**3.7**	**4.1**	**4.5**
Inpatient Utilization—General Hospital/Acute Care—Surgery: Total Discharges per 1,000 MM	**0.6**	**0.8**	**1.2**	**1.4**	**2.0**
Inpatient Utilization—General Hospital/Acute Care—Surgery: Total Days per 1,000 MM	**2.8**	**4.2**	**6.3**	**9.1**	**13.0**
Inpatient Utilization—General Hospital/Acute Care—Surgery: Total Average Length of Stay	**4.0**	**4.8**	**5.5**	**6.5**	**7.2**
Inpatient Utilization—General Hospital/Acute Care—Maternity: Total Discharges per 1,000 MM	**2.9**	**3.8**	**5.5**	**7.7**	**10.6**
Inpatient Utilization—General Hospital/Acute Care—Maternity: Total Days per 1,000 MM	**7.8**	**9.9**	**14.2**	**19.6**	**26.0**
Inpatient Utilization—General Hospital/Acute Care—Maternity: Total Average Length of Stay	**2.3**	**2.5**	**2.6**	**2.8**	**3.0**
Ambulatory Care—Outpatient Visits per 1,000 MM	**219.0**	**273.3**	**324.0**	**366.5**	**410.4**
Ambulatory Care—ER Visits per 1,000 MM	**38.9**	**48.9**	**60.2**	**71.7**	**84.5**
Ambulatory Care—Ambulatory Surgery/Procedures per 1,000 MM	**2.3**	**3.4**	**5.4**	**7.0**	**8.9**
Ambulatory Care—Observation Room Stays per 1,000 MM	**0.1**	**0.9**	**1.7**	**2.5**	**4.5**

Table B-4—National HEDIS 2008 Medicaid Percentiles—Utilization of Services					
Measure	**10th Percentile**	**25th Percentile**	**50th Percentile**	**75th Percentile**	**90th Percentile**
Frequency of Selected Procedures—Myringotomy—Ages 0 to 4, Male & Female	**0.4**	**1.0**	**2.3**	**3.4**	**4.4**
Frequency of Selected Procedures—Myringotomy—Ages 5 to 19, Male & Female	**0.1**	**0.2**	**0.4**	**0.6**	**0.7**
Frequency of Selected Procedures—Tonsillectomy—Ages 0 to 9, Male & Female	**0.2**	**0.4**	**0.7**	**0.9**	**1.1**
Frequency of Selected Procedures—Tonsillectomy—Ages 10 to 19, Male & Female	**0.0**	**0.2**	**0.3**	**0.5**	**0.6**
Frequency of Selected Procedures—Dilation & Curettage—Ages 15 to 44, Female	**0.1**	**0.1**	**0.2**	**0.3**	**0.5**
Frequency of Selected Procedures—Dilation & Curettage—Ages 45 to 64, Female	**0.0**	**0.1**	**0.2**	**0.4**	**0.6**
Frequency of Selected Procedures—Hysterectomy, Abdominal—Ages 15 to 44, Female	**0.1**	**0.2**	**0.2**	**0.3**	**0.4**
Frequency of Selected Procedures—Hysterectomy, Abdominal—Ages 45 to 64, Female	**0.3**	**0.4**	**0.5**	**0.6**	**0.8**
Frequency of Selected Procedures—Hysterectomy, Vaginal—Ages 15 to 44, Female	**0.0**	**0.0**	**0.1**	**0.2**	**0.3**
Frequency of Selected Procedures—Hysterectomy, Vaginal—Ages 45 to 64, Female	**0.0**	**0.1**	**0.2**	**0.3**	**0.4**
Frequency of Selected Procedures—Cholecystectomy, Open—Ages 30 to 64, Male	**0.0**	**0.0**	**0.0**	**0.1**	**0.1**
Frequency of Selected Procedures—Cholecystectomy, Open—Ages 15 to 44, Female	**0.0**	**0.0.**	**0.0**	**0.0**	**0.1**
Frequency of Selected Procedures—Cholecystectomy, Open—Ages 45 to 64, Female	**0.0**	**0.0**	**0.0**	**0.1**	**0.2**
Frequency of Selected Procedures—Cholecystectomy, Closed (laparoscopic)—Ages 30 to 64, Male	**0.1**	**0.1**	**0.2**	**0.4**	**0.5**
Frequency of Selected Procedures—Cholecystectomy, Closed (laparoscopic)—Ages 15 to 44, Female	**0.4**	**0.5**	**0.7**	**0.9**	**1.1**

Table B-4—National HEDIS 2008 Medicaid Percentiles—Utilization of Services					
Measure	**10th Percentile**	**25th Percentile**	**50th Percentile**	**75th Percentile**	**90th Percentile**
Frequency of Selected Procedures—Cholecystectomy, Closed (laparoscopic)—Ages 45 to 64, Female	**0.3**	**0.4**	**0.6**	**0.8**	**1.1**
Frequency of Selected Procedures—Back Surgery—Ages 20 to 44, Male	**0.0**	**0.2**	**0.4**	**0.5**	**0.7**
Frequency of Selected Procedures—Back Surgery—Ages 20 to 44, Female	**0.0**	**0.1**	**0.2**	**0.3**	**0.4**
Frequency of Selected Procedures—Back Surgery—Ages 45 to 64, Male	**0.0**	**0.2**	**0.5**	**0.8**	**1.3**
Frequency of Selected Procedures—Back Surgery—Ages 45 to 64, Female	**0.0**	**0.2**	**0.5**	**0.7**	**0.9**
Frequency of Selected Procedures—Mastectomy—Ages 15 to 44, Female	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
Frequency of Selected Procedures—Mastectomy—Ages 45 to 64, Female	**0.0**	**0.1**	**0.1**	**0.2**	**0.4**
Frequency of Selected Procedures—Lumpectomy—Ages 15 to 44, Female	**0.1**	**0.1**	**0.2**	**0.2**	**0.3**
Frequency of Selected Procedures—Lumpectomy—Ages 45 to 64, Female	**0.2**	**0.4**	**0.5**	**0.7**	**1.0**
Antibiotic Utilization—Total Average Scrips PMPY for Antibiotics	**17.9**	**20.6**	**25.0**	**29.0**	**35.4**

Appendix C. Trend Tables

Appendix C includes trend tables for each of the Colorado Medicaid health plans. Where applicable, the rates for 2007, 2008, and 2009 for each measure are presented along with a trend analysis that compares a measure's 2008 rate to its 2009 rate to assess whether the rate changed significantly.

Rates that were significantly higher in 2009 than in 2008 (by more than 10 percentage points, except for the Use of Services measures, which used a 10 percent change) are noted with upward arrows (⬆). Rates that were significantly lower in 2009 than in 2008 (by more than 10 percentage points) are noted with downward arrows (⬇). Rates in 2009 that were not significantly different than they were in 2008 (they did not change by more than 10 percentage points, or 10 percent for the Use of Service measures) are noted with parallel arrows (⬌). For *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, or 10 percent for the Use of Services measures) and a downward triangle (▼) indicates a decline in performance (the rate increased by more than 10 percentage points, or 10 percent for the Use of Services measures).

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 2009 Trend Table: DHMC					
Dimension	2009 Results Summary	2007	2008	2009	Health Plan Trend
Pediatric Care	*Childhood Immunization Status—Combination #2*	84.8%	85.2%	87.6%	⬅➡
	Childhood Immunization Status—Combination #3	83.7%	84.2%	87.1%	⬅➡
	Childhood Immunization Status—DTaP	84.8%	85.6%	88.1%	⬅➡
	Childhood Immunization Status—MMR	95.7%	93.2%	96.1%	⬅➡
	Childhood Immunization Status— IPV	92.4%	94.9%	94.9%	⬅➡
	Childhood Immunization Status—VZV	95.7%	93.2%	96.1%	⬅➡
	Childhood Immunization Status—Hepatitis B	93.5%	95.4%	96.4%	⬅➡
	Childhood Immunization Status—HiB	93.5%	94.4%	98.5%	⬅➡
	Childhood Immunization Status—Pneumococcal conjugate	87.0%	88.1%	90.8%	⬅➡
	Well-Child Visits in the First 15 Months of Live—Zero Visits	0.0%	1.9%	1.9%	⬅➡
	Well-Child Visits in the First 15 Months of Live—Six or More Visits	61.1%	63.1%	56.2%	⬅➡
	Well-Child Visits in the Third, Fourth, Fifth, and Sixth Years of Life	68.6%	56.9%	63.0%	⬅➡
	Adolescent Well-Care Visits	35.3%	31.9%	41.8%	⬅➡
Access to Care	*Prenatal and Postpartum Care—Timeliness of Prenatal Care*	77.4%	82.7%	86.1%	⬅➡
	Prenatal and Postpartum Care—Postpartum Care	33.9%	55.2%	59.1%	⬅➡
	Adults' Access to Preventive/Ambulatory Health Services—Ages 20–44 Years	- -	66.1%	68.9%	⬅➡
	Adults' Access to Preventive/Ambulatory Health Services—Ages 45–64 Years	- -	68.7%	70.7%	⬅➡
	Adults' Access to Preventive/Ambulatory Health Services—Ages 65 Years and Older	- -	56.4%	59.9%	⬅➡
	Children's & Adolescents' Access to PCPs—Ages 12 to 24 Months	- -	- -	90.6%	- -
	Children's & Adolescents' Access to PCPs—Ages 25 Months to 6 Years	- -	- -	77.6%	- -
	Children's & Adolescents' Access to PCPs—Ages 7 to 11 Years	- -	- -	81.9%	- -
	Children's & Adolescents' Access to PCPs— Ages 12 to 19 Years	- -	- -	83.6%	- -
Living with Illness	*Use of Appropriate Medications for People With Asthma, Ages 5 to 9 Years*	- -	- -	97.9%	- -
	Use of Appropriate Medications for People With Asthma, Ages 10 to 17 Years	- -	- -	90.5%	- -
	Use of Appropriate Medications for People With Asthma, Ages 18 to 56 Years	- -	- -	80.4%	- -
	Use of Appropriate Medications for People With Asthma, Total	- -	- -	86.3%	- -
	CMC, LDL-C Level <100	54.1%	51.0%	75.9%	⬆
	CMC, LDL-C Screening	73.0%	70.6%	85.2%	⬆
	Annual Monitoring for Patients on Persistent Medications—Total	- -	77.3%	80.8%	⬅➡
	Annual Monitoring for Patients on Persistent Medications—ACE Inhibitors or ARBs	- -	87.4%	86.6%	⬅➡
	Annual Monitoring for Patients on Persistent Medications—Anticonvulsants	- -	50.3%	62.2%	⬆
	Annual Monitoring for Patients on Persistent Medications—Digoxin	- -	NA	NA	- -
	Annual Monitoring for Patients on Persistent Medications—Diuretics	- -	84.9%	83.1%	⬅➡
	Comprehensive Diabetes Care—Hemoglobin A1c (HbA1c) Testing	- -	- -	88.3%	- -
	Comprehensive Diabetes Care—HbA1c Poor Control (<9%)	- -	- -	25.8%	- -

Table C-1—Colorado Medicaid HEDIS 2009 Trend Table: DHMC					
Dimension	2009 Results Summary	2007	2008	2009	Health Plan Trend
	Comprehensive Diabetes Care—HbA1c Control (< 8.0%)	- -	- -	47.8%	- -
	Comprehensive Diabetes Care—Eye Exam (Retinal) Performed	- -	- -	50.7%	- -
	Comprehensive Diabetes Care—LDL-C Screening Performed	- -	- -	76.0%	- -
	Comprehensive Diabetes Care—LDL-C Control (<100 mg/dL)	- -	- -	52.1%	- -
	Comprehensive Diabetes Care—Medical Attention for Nephropathy	- -	- -	83.1%	- -
	Comprehensive Diabetes Care—Blood Pressure Control (< 130/80 mm Hg)	- -	- -	42.2%	- -
	Comprehensive Diabetes Care—Blood Pressure Control (<140/90 mm Hg)	- -	- -	66.8%	- -
Utilization of Services	*Ambulatory Care: Outpatient Visits/1,000 MM*	- -	246.6	219.9	↓
	Ambulatory Care: Emergency Department/1,000 MM	- -	36.3	9.4	↓
	Ambulatory Care: Ambulatory Surgery/1,000 MM	- -	3.4	16.5	↑
	Ambulatory Care: Observation Room Stays/1,000 MM	- -	1.6	0.8	↓
	Inpatient Utilization: Total Inpatient—Discharges/1,000 MM	- -	9.7	5.7	↓
	Inpatient Utilization: Total Inpatient—Days/1,000 MM	- -	39.7	21.7	↓
	Inpatient Utilization: Total Inpatient—Average Length of Stay	- -	4.1	3.8	↔
	Inpatient Utilization: Medicine—Discharges/1,000 MM	- -	5.6	2.5	↓
	Inpatient Utilization: Medicine—Days/1,000 MM	- -	23.1	9.4	↓
	Inpatient Utilization: Medicine—Average Length of Stay	- -	4.1	3.8	↔
	Inpatient Utilization: Surgery—Discharges/1,000 MM	- -	1.4	0.9	↓
	Inpatient Utilization: Surgery—Days/1,000 MM	- -	9.4	6.3	↓
	Inpatient Utilization: Surgery—Average Length of Stay	- -	6.7	6.8	↔
	Inpatient Utilization: Maternity—Discharges/1,000 MM	- -	5.8	5.0	↓
	Inpatient Utilization: Maternity—Days/1,000 MM	- -	15.2	13.0	↓
	Inpatient Utilization: Maternity—Average Length of Stay	- -	2.6	2.6	↔
	Average Scrips PMPY for Antibiotics, Total	- -	- -	0.4	- -
	Average Days Supplied per Antibiotic Scrip, Total	- -	- -	10.0	- -
	Average Scrips PMPY for Antibiotics of Concern, Total	- -	- -	0.1	- -
	Percentage of Antibiotics of Concern of All Antibiotic Scrips, Total	- -	- -	25.6%	- -
	Back Surgery Procedures/1,000 MM—Females, 20–44 Years	- -	- -	0.1	- -
	Back Surgery Procedures/1,000 MM—Females, 45–64 Years	- -	- -	0.3	- -
	Back Surgery Procedures/1,000 MM—Males, 20–44 Years	- -	- -	0.2	- -
	Back Surgery Procedures/1,000 MM—Males, 45–64 Years	- -	- -	0.2	- -
	Closed Cholecystectomy Procedures/1,000 MM—Females, 15–44 Years	- -	- -	0.3	- -
	Closed Cholecystectomy Procedures/1,000 MM—Females, 45–64 Years	- -	- -	0.1	- -
	Closed Cholecystectomy Procedures/1,000 MM—Males, 30–64 Years	- -	- -	0.1	- -
	Open Cholecystectomy Procedures/1,000 MM—Females, 15–44 Years	- -	- -	0.0	- -
	Open Cholecystectomy Procedures/1,000 MM—Females, 45–64 Years	- -	- -	0.0	- -
	Open Cholecystectomy Procedures/1,000 MM—Males, 30–64 Years	- -	- -	0.0	- -
	Non-Obstetric D & C Procedures/1,000 MM—Females, 15–44 Years	- -	- -	0.0	- -
	Non-Obstetric D & C Procedures/1,000 MM—Females, 45–64 Years	- -	- -	0.0	- -
	Abdominal Hysterectomy Procedures/1,000 MM—Females, 15–44 Years	- -	- -	0.1	- -
	Abdominal Hysterectomy Procedures/1,000 MM—Females, 45–64 Years	- -	- -	0.2	- -

Table C-1—Colorado Medicaid HEDIS 2009 Trend Table: DHMC					
Dimension	2009 Results Summary	2007	2008	2009	Health Plan Trend
	Vaginal Hysterectomy Procedures/1,000 MM—Females, 15–44 Years	- -	- -	0.1	- -
	Vaginal Hysterectomy Procedures/1,000 MM—Females, 45–64 Years	- -	- -	0.1	- -
	Lumpectomy Procedures/1,000 MM—Females, 15–44 Years	- -	- -	0.0	- -
	Lumpectomy Procedures/1,000 MM—Females, 45–64 Years	- -	- -	0.0	- -
	Mastectomy Procedures/1,000 MM—Females, 15–44 Years	- -	- -	0.0	- -
	Mastectomy Procedures/1,000 MM—Females, 45–64 Years	- -	- -	0.1	- -
	Myringotomy Procedures/1,000 MM—0–4 Years	- -	- -	0.0	- -
	Myringotomy Procedures/1,000 MM—5–19 Years	- -	- -	0.0	- -
	Tonsillectomy Procedures/1,000 MM—0–9 Years	- -	- -	0.0	- -
	Tonsillectomy Procedures/1,000 MM—10–19 Years	- -	- -	0.0	- -

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 2009 Trend Table: RMHP					
Dimension	2009 Results Summary	2007	2008	2009	Health Plan Trend
Pediatric Care	*Childhood Immunization Status—Combination #2*	74.5%	81.5%	78.3%	⬅➡
	Childhood Immunization Status—Combination #3	68.0%	75.9%	73.7%	⬅➡
	Childhood Immunization Status—DTaP	83.1%	88.1%	82.9%	⬅➡
	Childhood Immunization Status—MMR	94.1%	94.7%	91.9%	⬅➡
	Childhood Immunization Status— IPV	90.1%	95.0%	94.0%	⬅➡
	Childhood Immunization Status—VZV	88.7%	91.5%	91.1%	⬅➡
	Childhood Immunization Status—Hepatitis B	93.3%	94.4%	93.8%	⬅➡
	Childhood Immunization Status—HiB	90.3%	93.7%	96.2%	⬅➡
	Childhood Immunization Status—Pneumococcal conjugate	78.5%	85.0%	82.1%	⬅➡
	Well-Child Visits in the First 15 Months of Live—Zero Visits	1.6%	1.4%	0.0%	⬅➡
	Well-Child Visits in the First 15 Months of Live—Six or More Visits	27.7%	30.6%	77.3%	⬆
	Well-Child Visits in the Third, Fourth, Fifth, and Sixth Years of Life	67.1%	59.5%	63.5%	⬅➡
	Adolescent Well-Care Visits	39.5%	40.8%	45.5%	⬅➡
Access to Care	*Prenatal and Postpartum Care—Timeliness of Prenatal Care*	97.1%	97.1%	95.2%	⬅➡
	Prenatal and Postpartum Care—Postpartum Care	75.9%	72.8%	71.9%	⬅➡
	Adults' Access to Preventive/Ambulatory Health Services—Ages 20–44 Years	- -	83.7%	86.1%	⬅➡
	Adults' Access to Preventive/Ambulatory Health Services—Ages 45–64 Years	- -	88.0%	87.6%	⬅➡
	Adults' Access to Preventive/Ambulatory Health Services—Ages 65 Years and Older	- -	95.0%	95.2%	⬅➡
	Children's & Adolescents' Access to PCPs—Ages 12 to 24 Months	- -	- -	98.3%	- -
	Children's & Adolescents' Access to PCPs—Ages 25 Months to 6 Years	- -	- -	89.1%	- -
	Children's & Adolescents' Access to PCPs—Ages 7 to 11 Years	- -	- -	92.3%	- -
	Children's & Adolescents' Access to PCPs— Ages 12 to 19 Years	- -	- -	91.9%	- -
Living with Illness	*Use of Appropriate Medications for People With Asthma, Ages 5 to 9 Years*	- -	- -	90.0%	- -
	Use of Appropriate Medications for People With Asthma, Ages 10 to 17 Years	- -	- -	90.3%	- -
	Use of Appropriate Medications for People With Asthma, Ages 18 to 56 Years	- -	- -	88.0%	- -
	Use of Appropriate Medications for People With Asthma, Total	- -	- -	89.0%	- -
	CMC, LDL-C Level <100	43.2%	57.3%	45.8%	⬇
	CMC, LDL-C Screening	72.6%	74.4%	69.9%	⬅➡
	Annual Monitoring for Patients on Persistent Medications—Total	- -	65.2%	71.4%	⬅➡
	Annual Monitoring for Patients on Persistent Medications—ACE Inhibitors or ARBs	- -	65.5%	71.3%	⬅➡
	Annual Monitoring for Patients on Persistent Medications—Anticonvulsants	- -	67.9%	69.6%	⬅➡
	Annual Monitoring for Patients on Persistent Medications—Digoxin	- -	62.5%	76.7%	⬆
	Annual Monitoring for Patients on Persistent Medications—Diuretics	- -	63.8%	71.9%	⬅➡
	Comprehensive Diabetes Care—Hemoglobin A1c (HbA1c) Testing	- -	- -	85.7%	- -

Table C-2—Colorado Medicaid HEDIS 2009 Trend Table: RMHP					
Dimension	2009 Results Summary	2007	2008	2009	Health Plan Trend
	Comprehensive Diabetes Care—HbA1c Poor Control (<9%)	- -	- -	25.8%	- -
	Comprehensive Diabetes Care—HbA1c Control (< 8.0%)	- -	- -	64.4%	- -
	Comprehensive Diabetes Care—Eye Exam (Retinal) Performed	- -	- -	62.0%	- -
	Comprehensive Diabetes Care—LDL-C Screening Performed	- -	- -	70.1%	- -
	Comprehensive Diabetes Care—LDL-C Control (<100 mg/dL)	- -	- -	43.8%	- -
	Comprehensive Diabetes Care—Medical Attention for Nephropathy	- -	- -	76.1%	- -
	Comprehensive Diabetes Care—Blood Pressure Control (< 130/80 mm Hg)	- -	- -	47.0%	- -
	Comprehensive Diabetes Care—Blood Pressure Control (<140/90 mm Hg)	- -	- -	79.1%	- -
Utilization of Services	*Ambulatory Care: Outpatient Visits/1,000 MM*	- -	440.6	461.3	⇔
	Ambulatory Care: Emergency Department/1,000 MM	- -	54.1	59.2	⇔
	Ambulatory Care: Ambulatory Surgery/1,000 MM	- -	12.2	13.6	⇑
	Ambulatory Care: Observation Room Stays/1,000 MM	- -	1.2	1.2	⇔
	Inpatient Utilization: Total Inpatient—Discharges/1,000 MM	- -	14.8	13.9	⇔
	Inpatient Utilization: Total Inpatient—Days/1,000 MM	- -	48.5	46.5	⇔
	Inpatient Utilization: Total Inpatient—Average Length of Stay	- -	3.3	3.3	⇔
	Inpatient Utilization: Medicine—Discharges/1,000 MM	- -	6.0	5.1	⇓
	Inpatient Utilization: Medicine—Days/1,000 MM	- -	21.4	18.6	⇓
	Inpatient Utilization: Medicine—Average Length of Stay	- -	3.6	3.7	⇔
	Inpatient Utilization: Surgery—Discharges/1,000 MM	- -	2.5	2.9	⇑
	Inpatient Utilization: Surgery—Days/1,000 MM	- -	15.7	16.3	⇔
	Inpatient Utilization: Surgery—Average Length of Stay	- -	6.2	5.6	⇓
	Inpatient Utilization: Maternity—Discharges/1,000 MM	- -	13.0	12.2	⇔
	Inpatient Utilization: Maternity—Days/1,000 MM	- -	23.4	23.8	⇔
	Inpatient Utilization: Maternity—Average Length of Stay	- -	1.8	1.9	⇔
	Average Scrips PMPY for Antibiotics, Total	- -	- -	1.1	- -
	Average Days Supplied per Antibiotic Scrip, Total	- -	- -	10.3	- -
	Average Scrips PMPY for Antibiotics of Concern, Total	- -	- -	0.4	- -
	Percentage of Antibiotics of Concern of All Antibiotic Scrips, Total	- -	- -	38.8%	- -
	Back Surgery Procedures/1,000 MM—Females, 20–44 Years	- -	- -	0.6	- -
	Back Surgery Procedures/1,000 MM—Females, 45–64 Years	- -	- -	1.4	- -
	Back Surgery Procedures/1,000 MM—Males, 20–44 Years	- -	- -	1.3	- -
	Back Surgery Procedures/1,000 MM—Males, 45–64 Years	- -	- -	0.4	- -
	Closed Cholecystectomy Procedures/1,000 MM—Females, 15–44 Years	- -	- -	1.5	- -
	Closed Cholecystectomy Procedures/1,000 MM—Females, 45–64 Years	- -	- -	1.3	- -
	Closed Cholecystectomy Procedures/1,000 MM—Males, 30–64 Years	- -	- -	0.3	- -
	Open Cholecystectomy Procedures/1,000 MM—Females, 15–44 Years	- -	- -	0.0	- -
	Open Cholecystectomy Procedures/1,000 MM—Females, 45–64 Years	- -	- -	0.2	- -
	Open Cholecystectomy Procedures/1,000 MM—Males, 30–64 Years	- -	- -	0.0	- -
	Non-Obstetric D & C Procedures/1,000 MM—Females, 15–44 Years	- -	- -	0.2	- -
	Non-Obstetric D & C Procedures/1,000 MM—Females, 45–64 Years	- -	- -	0.4	- -
	Abdominal Hysterectomy Procedures/1,000 MM—Females, 15–44 Years	- -	- -	0.3	- -

Table C-2—Colorado Medicaid HEDIS 2009 Trend Table: RMHP					
Dimension	2009 Results Summary	2007	2008	2009	Health Plan Trend
	Abdominal Hysterectomy Procedures/1,000 MM—Females, 45–64 Years	- -	- -	0.4	- -
	Vaginal Hysterectomy Procedures/1,000 MM—Females, 15–44 Years	- -	- -	0.9	- -
	Vaginal Hysterectomy Procedures/1,000 MM—Females, 45–64 Years	- -	- -	0.4	- -
	Lumpectomy Procedures/1,000 MM—Females, 15–44 Years	- -	- -	0.3	- -
	Lumpectomy Procedures/1,000 MM—Females, 45–64 Years	- -	- -	0.7	- -
	Mastectomy Procedures/1,000 MM—Females, 15–44 Years	- -	- -	0.1	- -
	Mastectomy Procedures/1,000 MM—Females, 45–64 Years	- -	- -	0.2	- -
	Myringotomy Procedures/1,000 MM—0–4 Years	- -	- -	3.9	- -
	Myringotomy Procedures/1,000 MM—5–19 Years	- -	- -	0.5	- -
	Tonsillectomy Procedures/1,000 MM—0–9 Years	- -	- -	1.0	- -
	Tonsillectomy Procedures/1,000 MM—10–19 Years	- -	- -	0.9	- -

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 2009 Trend Table: FFS					
Dimension	2009 Results Summary	2007	2008	2009	Health Plan Trend
Pediatric Care	*Childhood Immunization Status—Combination #2*	37.2%	66.4%	70.1%	⬅➡
	Childhood Immunization Status—Combination #3	28.7%	57.2%	63.3%	⬅➡
	Childhood Immunization Status—DTaP	45.3%	73.0%	74.9%	⬅➡
	Childhood Immunization Status—MMR	60.6%	87.6%	86.6%	⬅➡
	Childhood Immunization Status— IPV	57.4%	86.1%	85.4%	⬅➡
	Childhood Immunization Status—VZV	59.1%	85.6%	86.1%	⬅➡
	Childhood Immunization Status—Hepatitis B	51.1%	85.4%	84.2%	⬅➡
	Childhood Immunization Status—HiB	59.1%	84.4%	92.2%	⬅➡
	Childhood Immunization Status—Pneumococcal conjugate	36.7%	69.1%	70.6%	⬅➡
	Well-Child Visits in the First 15 Months of Live—Zero Visits	20.7%	21.2%	31.6%	⬇
	Well-Child Visits in the First 15 Months of Live—Six or More Visits	30.2%	37.5%	29.7%	⬅➡
	Well-Child Visits in the Third, Fourth, Fifth, and Sixth Years of Life	26.2%	47.7%	45.5%	⬅➡
	Adolescent Well-Care Visits	23.8%	15.6%	27.5%	⬆
Access to Care	*Prenatal and Postpartum Care—Timeliness of Prenatal Care*	41.4%	52.6%	64.7%	⬆
	Prenatal and Postpartum Care—Postpartum Care	35.5%	53.3%	53.0%	⬅➡
	*Adults' Access to Preventive/Ambulatory Health Services—Ages 20–44 Years**	- -	66.4%	76.6%	⬆
	*Adults' Access to Preventive/Ambulatory Health Services—Ages 45–64 Years**	- -	49.9%	79.5%	⬆
	*Adults' Access to Preventive/Ambulatory Health Services—Ages 65 Years and Older**	- -	16.5%	70.1%	⬆
	Children's & Adolescents' Access to PCPs—Ages 12 to 24 Months	- -	- -	51.5%	- -
	Children's & Adolescents' Access to PCPs—Ages 25 Months to 6 Years	- -	- -	40.4%	- -
	Children's & Adolescents' Access to PCPs—Ages 7 to 11 Years	- -	- -	39.3%	- -
	Children's & Adolescents' Access to PCPs— Ages 12 to 19 Years	- -	- -	39.7%	- -
	Annual Dental Visit—Ages 2 to 3 Years	- -	- -	39.9%	- -
	Annual Dental Visit—Ages 4 to 6 Years	- -	- -	57.1%	- -
	Annual Dental Visit—Ages 7 to 10 Years	- -	- -	61.7%	- -
	Annual Dental Visit—Ages 11 to 14 Years	- -	- -	56.5%	- -
	Annual Dental Visit—Ages 15 to 18 Years	- -	- -	48.9%	- -
	Annual Dental Visit—Ages 19 to 21 Years	- -	- -	28.0%	- -
	Annual Dental Visit—Total	- -	- -	52.3%	- -
Living with Illness	*Use of Appropriate Medications for People With Asthma, Ages 5 to 9 Years*	- -	- -	93.5%	- -
	Use of Appropriate Medications for People With Asthma, Ages 10 to 17 Years	- -	- -	89.8%	- -
	Use of Appropriate Medications for People With Asthma, Ages 18 to 56 Years	- -	- -	83.6%	- -
	Use of Appropriate Medications for People With Asthma, Total	- -	- -	88.7%	- -
	CMC, LDL-C Level <100	18.6%	23.7%	26.0%	⬅➡
	CMC, LDL-C Screening	65.6%	72.3%	57.2%	⬇
	Annual Monitoring for Patients on Persistent Medications—Total	- -	79.9%	82.8%	⬅➡

Table C-3—Colorado Medicaid HEDIS 2009 Trend Table: FFS					
Dimension	**2009 Results Summary**	**2007**	**2008**	**2009**	**Health Plan Trend**
	Annual Monitoring for Patients on Persistent Medications—ACE Inhibitors or ARBs	- -	84.2%	87.2%	⬌
	Annual Monitoring for Patients on Persistent Medications—Anticonvulsants	- -	64.3%	67.3%	⬌
	Annual Monitoring for Patients on Persistent Medications—Digoxin	- -	81.9%	88.4%	⬌
	Annual Monitoring for Patients on Persistent Medications—Diuretics	- -	83.7%	86.0%	⬌
	Comprehensive Diabetes Care—Hemoglobin A1c (HbA1c) Testing	- -	- -	57.7%	- -
	Comprehensive Diabetes Care—HbA1c Poor Control (<9%)	- -	- -	68.9%	- -
	Comprehensive Diabetes Care—HbA1c Control (< 8.0%)	- -	- -	26.5%	- -
	Comprehensive Diabetes Care—Eye Exam (Retinal) Performed	- -	- -	32.1%	- -
	Comprehensive Diabetes Care—LDL-C Screening Performed	- -	- -	49.1%	- -
	Comprehensive Diabetes Care—LDL-C Control (<100 mg/dL)	- -	- -	20.0%	- -
	Comprehensive Diabetes Care—Medical Attention for Nephropathy	- -	- -	59.6%	- -
	Comprehensive Diabetes Care—Blood Pressure Control (< 130/80 mm Hg)	- -	- -	21.9%	- -
	Comprehensive Diabetes Care—Blood Pressure Control (<140/90 mm Hg)	- -	- -	36.5%	- -
Utilization of Services	*Ambulatory Care: Outpatient Visits/1,000 MM**	- -	289.3	364.2	⬆
	*Ambulatory Care: Emergency Department/1,000 MM**	- -	54.3	63.9	⬆
	*Ambulatory Care: Ambulatory Surgery/1,000 MM**	- -	5.2	11.0	⬆
	Ambulatory Care: Observation Room Stays/1,000 MM	- -	2.7	2.6	⬌
	Inpatient Utilization: Total Inpatient—Discharges/1,000 MM	- -	11.8	12.0	⬌
	Inpatient Utilization: Total Inpatient—Days/1,000 MM	- -	46.7	45.8	⬌
	Inpatient Utilization: Total Inpatient—Average Length of Stay	- -	3.9	3.8	⬌
	Inpatient Utilization: Medicine—Discharges/1,000 MM	- -	3.9	4.1	⬌
	Inpatient Utilization: Medicine—Days/1,000 MM	- -	16.9	17.3	⬌
	Inpatient Utilization: Medicine—Average Length of Stay	- -	4.4	4.3	⬌
	Inpatient Utilization: Surgery—Discharges/1,000 MM	- -	1.4	1.6	⬆
	Inpatient Utilization: Surgery—Days/1,000 MM	- -	13.6	12.4	⬌
	Inpatient Utilization: Surgery—Average Length of Stay	- -	10.0	7.7	⬇
	Inpatient Utilization: Maternity—Discharges/1,000 MM	- -	13.5	13.0	⬌
	Inpatient Utilization: Maternity—Days/1,000 MM	- -	33.3	33.2	⬌
	Inpatient Utilization: Maternity—Average Length of Stay	- -	2.5	2.6	⬌
	Average Scrips PMPY for Antibiotics, Total	- -	- -	0.9	- -
	Average Days Supplied per Antibiotic Scrip, Total	- -	- -	9.7	- -
	Average Scrips PMPY for Antibiotics of Concern, Total	- -	- -	0.3	- -
	Percentage of Antibiotics of Concern of All Antibiotic Scrips, Total	- -	- -	38.6%	- -
	Back Surgery Procedures/1,000 MM—Females, 20–44 Years	- -	- -	0.3	- -
	Back Surgery Procedures/1,000 MM—Females, 45–64 Years	- -	- -	1.0	- -
	Back Surgery Procedures/1,000 MM—Males, 20–44 Years	- -	- -	0.6	- -
	Back Surgery Procedures/1,000 MM—Males, 45–64 Years	- -	- -	1.1	- -
	Closed Cholecystectomy Procedures/1,000 MM—Females, 15–44 Years	- -	- -	1.3	- -
	Closed Cholecystectomy Procedures/1,000 MM—Females, 45–64 Years	- -	- -	1.0	- -

Table C-3—Colorado Medicaid HEDIS 2009 Trend Table: FFS					
Dimension	2009 Results Summary	2007	2008	2009	Health Plan Trend
	Closed Cholecystectomy Procedures/1,000 MM—Males, 30–64 Years	- -	- -	0.5	- -
	Open Cholecystectomy Procedures/1,000 MM—Females, 15–44 Years	- -	- -	0.0	- -
	Open Cholecystectomy Procedures/1,000 MM—Females, 45–64 Years	- -	- -	0.1	- -
	Open Cholecystectomy Procedures/1,000 MM—Males, 30–64 Years	- -	- -	0.2	- -
	Non-Obstetric D & C Procedures/1,000 MM—Females, 15–44 Years	- -	- -	0.2	- -
	Non-Obstetric D & C Procedures/1,000 MM—Females, 45–64 Years	- -	- -	0.2	- -
	Abdominal Hysterectomy Procedures/1,000 MM—Females, 15–44 Years	- -	- -	0.3	- -
	Abdominal Hysterectomy Procedures/1,000 MM—Females, 45–64 Years	- -	- -	0.4	- -
	Vaginal Hysterectomy Procedures/1,000 MM—Females, 15–44 Years	- -	- -	0.4	- -
	Vaginal Hysterectomy Procedures/1,000 MM—Females, 45–64 Years	- -	- -	0.4	- -
	Lumpectomy Procedures/1,000 MM—Females, 15–44 Years	- -	- -	0.1	- -
	Lumpectomy Procedures/1,000 MM—Females, 45–64 Years	- -	- -	0.7	- -
	Mastectomy Procedures/1,000 MM—Females, 15–44 Years	- -	- -	0.1	- -
	Mastectomy Procedures/1,000 MM—Females, 45–64 Years	- -	- -	0.4	- -
	Myringotomy Procedures/1,000 MM—0–4 Years	- -	- -	2.5	- -
	Myringotomy Procedures/1,000 MM—5–19 Years	- -	- -	0.4	- -
	Tonsillectomy Procedures/1,000 MM—0–9 Years	- -	- -	0.8	- -
	Tonsillectomy Procedures/1,000 MM—10–19 Years	- -	- -	0.5	- -

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

***Note:** Large increases in the adult population for the *Adults' Access to Preventive/Ambulatory Health Services* measure and some of the *Ambulatory Care* measures can be explained by the inclusion of crossover claims this year for FFS members.

Table C-4—Colorado Medicaid HEDIS 2009 Trend Table: PCPP					
Dimension	2009 Results Summary	2007	2008	2009	Health Plan Trend
Pediatric Care	*Childhood Immunization Status—Combination #2*	49.4%	78.6%	70.1%	⬌
	Childhood Immunization Status—Combination #3	41.7%	69.8%	65.5%	⬌
	Childhood Immunization Status—DTaP	61.7%	83.2%	78.8%	⬌
	Childhood Immunization Status—MMR	80.7%	95.1%	92.2%	⬌
	Childhood Immunization Status— IPV	66.6%	93.7%	89.3%	⬌
	Childhood Immunization Status—VZV	79.1%	93.3%	92.2%	⬌
	Childhood Immunization Status—Hepatitis B	62.9%	91.9%	84.4%	⬌
	Childhood Immunization Status—HiB	76.1%	91.9%	97.1%	⬌
	Childhood Immunization Status—Pneumococcal conjugate	55.5%	77.9%	80.3%	⬌
	Well-Child Visits in the First 15 Months of Live—Zero Visits	21.1%	18.5%	63.8%	⬇
	Well-Child Visits in the First 15 Months of Live—Six or More Visits	35.5%	56.5%	15.9%	⬇
	Well-Child Visits in the Third, Fourth, Fifth, and Sixth Years of Life	21.1%	42.6%	46.2%	⬌
	Adolescent Well-Care Visits	27.5%	15.2%	28.0%	⬆
Access to Care	*Prenatal and Postpartum Care—Timeliness of Prenatal Care*	54.0%	63.4%	70.2%	⬌
	Prenatal and Postpartum Care—Postpartum Care	50.6%	65.3%	58.2%	⬌
	*Adults' Access to Preventive/Ambulatory Health Services—Ages 20–44 Years**	- -	64.6%	81.8%	⬆
	*Adults' Access to Preventive/Ambulatory Health Services—Ages 45–64 Years**	- -	63.7%	86.7%	⬆
	*Adults' Access to Preventive/Ambulatory Health Services—Ages 65 Years and Older**	- -	15.1%	81.9%	⬆
	Children's & Adolescents' Access to PCPs—Ages 12 to 24 Months	- -	- -	14.9%	- -
	Children's & Adolescents' Access to PCPs—Ages 25 Months to 6 Years	- -	- -	22.8%	- -
	Children's & Adolescents' Access to PCPs—Ages 7 to 11 Years	- -	- -	33.7%	- -
	Children's & Adolescents' Access to PCPs— Ages 12 to 19 Years	- -	- -	38.7%	- -
	Annual Dental Visit—Ages 2 to 3 Years	- -	- -	46.9%	- -
	Annual Dental Visit—Ages 4 to 6 Years	- -	- -	66.6%	- -
	Annual Dental Visit—Ages 7 to 10 Years	- -	- -	68.5%	- -
	Annual Dental Visit—Ages 11 to 14 Years	- -	- -	65.0%	- -
	Annual Dental Visit—Ages 15 to 18 Years	- -	- -	57.6%	- -
	Annual Dental Visit—Ages 19 to 21 Years	- -	- -	31.9%	- -
	Annual Dental Visit—Total	- -	- -	61.9%	- -
Living with Illness	*Use of Appropriate Medications for People With Asthma, Ages 5 to 9 Years*	- -	- -	96.9%	- -
	Use of Appropriate Medications for People With Asthma, Ages 10 to 17 Years	- -	- -	86.0%	- -
	Use of Appropriate Medications for People With Asthma, Ages 18 to 56 Years	- -	- -	84.6%	- -
	Use of Appropriate Medications for People With Asthma, Total	- -	- -	87.8%	- -
	CMC, LDL-C Level <100	29.8%	24.5%	24.5%	⬌
	CMC, LDL-C Screening	67.6%	69.2%	58.6%	⬇

Table C-4—Colorado Medicaid HEDIS 2009 Trend Table: PCPP					
Dimension	2009 Results Summary	2007	2008	2009	Health Plan Trend
	Annual Monitoring for Patients on Persistent Medications—Total	- -	80.0%	82.2%	⬌
	Annual Monitoring for Patients on Persistent Medications—ACE Inhibitors or ARBs	- -	85.4%	89.1%	⬌
	Annual Monitoring for Patients on Persistent Medications—Anticonvulsants	- -	68.1%	70.0%	⬌
	Annual Monitoring for Patients on Persistent Medications—Digoxin	- -	91.1%	90.9%	⬌
	Annual Monitoring for Patients on Persistent Medications—Diuretics	- -	84.7%	86.2%	⬌
	Comprehensive Diabetes Care—Hemoglobin A1c (HbA1c) Testing	- -	- -	66.9%	- -
	Comprehensive Diabetes Care—HbA1c Poor Control (<9%)	- -	- -	65.0%	- -
	Comprehensive Diabetes Care—HbA1c Control (< 8.0%)	- -	- -	29.2%	- -
	Comprehensive Diabetes Care—Eye Exam (Retinal) Performed	- -	- -	38.0%	- -
	Comprehensive Diabetes Care—LDL-C Screening Performed	- -	- -	57.7%	- -
	Comprehensive Diabetes Care—LDL-C Control (<100 mg/dL)	- -	- -	23.6%	- -
	Comprehensive Diabetes Care—Medical Attention for Nephropathy	- -	- -	55.5%	- -
	Comprehensive Diabetes Care—Blood Pressure Control (< 130/80 mm Hg)	- -	- -	24.1%	- -
	Comprehensive Diabetes Care—Blood Pressure Control (<140/90 mm Hg)	- -	- -	36.7%	- -
Utilization of Services	*Ambulatory Care: Outpatient Visits/1,000 MM**	- -	298.7	434.2	⬆
	*Ambulatory Care: Emergency Department/1,000 MM**	- -	50.2	63.8	⬆
	*Ambulatory Care: Ambulatory Surgery/1,000 MM**	- -	7.1	14.5	⬆
	Ambulatory Care: Observation Room Stays/1,000 MM	- -	1.4	1.6	⬆
	Inpatient Utilization: Total Inpatient—Discharges/1,000 MM	- -	8.3	9.0	⬌
	Inpatient Utilization: Total Inpatient—Days/1,000 MM	- -	40.9	48.6	⬆
	Inpatient Utilization: Total Inpatient—Average Length of Stay	- -	4.9	5.4	⬌
	Inpatient Utilization: Medicine—Discharges/1,000 MM	- -	5.0	5.4	⬌
	Inpatient Utilization: Medicine—Days/1,000 MM	- -	22.7	26.1	⬆
	Inpatient Utilization: Medicine—Average Length of Stay	- -	4.6	4.8	⬌
	Inpatient Utilization: Surgery—Discharges/1,000 MM	- -	1.9	2.4	⬆
	Inpatient Utilization: Surgery—Days/1,000 MM	- -	14.4	19.2	⬆
	Inpatient Utilization: Surgery—Average Length of Stay	- -	7.7	8.1	⬌
	Inpatient Utilization: Maternity—Discharges/1,000 MM	- -	2.5	2.2	⬇
	Inpatient Utilization: Maternity—Days/1,000 MM	- -	6.7	6.0	⬇
	Inpatient Utilization: Maternity—Average Length of Stay	- -	2.7	2.7	⬌
	Average Scrips PMPY for Antibiotics, Total	- -	- -	1.1	- -
	Average Days Supplied per Antibiotic Scrip, Total	- -	- -	10.7	- -
	Average Scrips PMPY for Antibiotics of Concern, Total	- -	- -	0.5	- -
	Percentage of Antibiotics of Concern of All Antibiotic Scrips, Total	- -	- -	41.3%	- -
	Back Surgery Procedures/1,000 MM—Females, 20–44 Years	- -	- -	0.3	- -
	Back Surgery Procedures/1,000 MM—Females, 45–64 Years	- -	- -	1.1	- -
	Back Surgery Procedures/1,000 MM—Males, 20–44 Years	- -	- -	0.4	- -
	Back Surgery Procedures/1,000 MM—Males, 45–64 Years	- -	- -	0.6	- -
	Closed Cholecystectomy Procedures/1,000 MM—Females, 15–44 Years	- -	- -	1.0	- -

Table C-4—Colorado Medicaid HEDIS 2009 Trend Table: PCPP					
Dimension	2009 Results Summary	2007	2008	2009	Health Plan Trend
	Closed Cholecystectomy Procedures/1,000 MM—Females, 45–64 Years	- -	- -	1.0	- -
	Closed Cholecystectomy Procedures/1,000 MM—Males, 30–64 Years	- -	- -	0.6	- -
	Open Cholecystectomy Procedures/1,000 MM—Females, 15–44 Years	- -	- -	0.0	- -
	Open Cholecystectomy Procedures/1,000 MM—Females, 45–64 Years	- -	- -	0.2	- -
	Open Cholecystectomy Procedures/1,000 MM—Males, 30–64 Years	- -	- -	0.0	- -
	Non-Obstetric D & C Procedures/1,000 MM—Females, 15–44 Years	- -	- -	0.2	- -
	Non-Obstetric D & C Procedures/1,000 MM—Females, 45–64 Years	- -	- -	0.2	- -
	Abdominal Hysterectomy Procedures/1,000 MM—Females, 15–44 Years	- -	- -	0.3	- -
	Abdominal Hysterectomy Procedures/1,000 MM—Females, 45–64 Years	- -	- -	0.4	- -
	Vaginal Hysterectomy Procedures/1,000 MM—Females, 15–44 Years	- -	- -	0.4	- -
	Vaginal Hysterectomy Procedures/1,000 MM—Females, 45–64 Years	- -	- -	0.2	- -
	Lumpectomy Procedures/1,000 MM—Females, 15–44 Years	- -	- -	0.1	- -
	Lumpectomy Procedures/1,000 MM—Females, 45–64 Years	- -	- -	0.4	- -
	Mastectomy Procedures/1,000 MM—Females, 15–44 Years	- -	- -	0.0	- -
	Mastectomy Procedures/1,000 MM—Females, 45–64 Years	- -	- -	0.0	- -
	Myringotomy Procedures/1,000 MM—0–4 Years	- -	- -	3.0	- -
	Myringotomy Procedures/1,000 MM—5–19 Years	- -	- -	0.7	- -
	Tonsillectomy Procedures/1,000 MM—0–9 Years	- -	- -	0.9	- -
	Tonsillectomy Procedures/1,000 MM—10–19 Years	- -	- -	0.6	- -

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

***Note:** Large increases in the adult population for the *Adults' Access to Preventive/Ambulatory Health Services* measure and some of the *Ambulatory Care* measures can be explained by the inclusion of crossover claims this year for PCPP members.

Appendix D. Glossary

Appendix D includes terms, acronyms, and abbreviations that are 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 health plan (e.g., claims/encounter data, member data, provider data, hospital billing data, pharmacy data, and laboratory data).

Administrative Method

The administrative method requires health plans to identify the eligible population (i.e., the denominator) using administrative data. In addition, the numerator(s), or services provided to the members who are in the eligible population, are solely derived 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 health plan has 10,000 members who qualify for the *Prenatal and Postpartum Care* measure. The health plan chooses to perform the administrative method and finds that 4,000 members out of the 10,000 have 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 health plan publicly reporting its HEDIS measure rates. Each measure included in the HEDIS audit receives either a *Report*, *Not Applicable*, *No Benefit*, or *Not Report* audit finding.

BRFSS

Behavioral Risk Factor Surveillance System.

CAHPS

Consumer Assessment of Healthcare Providers and Systems is a set of standardized surveys that assess patient satisfaction with the experience of care.

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 because payment is not dependent upon such submission.

Certified HEDIS Software Vendor

A third party, with source code certified by NCQA, that contracts with a health 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 percentage of the measures must receive a "Pass" or "Pass With Qualifications" designation.

CIIS

The Colorado Immunization Information System (CIIS) is a "computerized information system that collects and disseminates consolidated immunization information for Coloradoans. The system is operated by the Colorado Department of Public Health and Environment." [D-1]

Claims-Based Denominator

When the eligible population for a measure is obtained from claims data. For claims-based denominator hybrid measures, health plans must identify their eligible population and draw their sample no earlier than January of the year following the measurement year to ensure that 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 & 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 to 11 years of age as of December 31 of the measurement year; and Cohort 4, adolescents 12 to 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 health plan to be eligible for inclusion in a measure to ensure that the health plan has a sufficient amount of time to be held accountable for providing services to that member.

[D-1] Accessed via the Web: http://coloradoimmunizations.info/ciis/index.htm on Sept ember 9, 2009

CPT

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

CVO

Credentialing verification organization.

Data Completeness

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

Data Completeness Study

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

Denominator

The number of members who meet all criteria specified in a 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

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

DTaP

Diphtheria and tetanus toxoids and acellular pertussis vaccine.

EDI

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

Electronic Data

Data that are maintained in a computer environment versus a paper environment.

Encounter Data

Billing data received from a capitated provider. Although the health plan does not reimburse the provider for each encounter, submission of encounter data allows a health 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.

FFS

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

Final Audit Report

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

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 health plan's adherence to HEDIS measure specifications.

HEDIS Repository

The data warehouse where all data used for HEDIS reporting are stored.

HEDIS Warehouse

See HEDIS repository.

Hib Vaccine

Haemophilus influenzae type b vaccine.

HPL

High performance level: 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—HbA1c Poor Control*) for which lower rates indicate better performance. For these two measures, the 10th percentile (rather than the 90th percentile) 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 health 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 then 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 better results but is considerably more labor intensive. For example, a health plan has 10,000 members who qualify for the *Prenatal and Postpartum Care* measure. The health plan chooses to perform the hybrid method. After randomly selecting 411 eligible members, the health plan finds that 161 members have evidence of a postpartum visit using administrative data. The health plan then obtains and reviews medical records for the 250 members who do 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 therefore 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 for reporting morbidity, mortality, and utilization rates, as well as for billing purposes.

IDSS

The Interactive Data Submission System is a tool used to submit data to NCQA.

Inpatient Data

Data derived from an inpatient hospital stay.

IRR

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

IPV

Inactivated poliovirus vaccine.

IS

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

IS Standards

Information System Standards: An NCQA-defined set of standards that measure how an organization collects, stores, analyzes, and reports medical, customer service, member, practitioner, and vendor data.[D-2]

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.

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 LPL is 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—HbA1c Poor Control*) lower rates indicate better performance. The LPL for these measures is 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 health plan's proprietary 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.

[D-2] HEDIS Compliance Audit Standards, Policies and Procedures, Volume 5

Material Bias

For most measures reported as a rate, any error that causes a ± 5 percent difference in the reported rate is considered materially biased. For non-rate measures, any error that causes a ± 10 percent difference in the reported rate or calculation is considered materially biased.

MCO

Managed care organization.

Medical Record Validation

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

Medicaid Percentiles

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

Membership Data

Electronic health plan files containing information about members, such as name, date of birth, gender, current address, and enrollment (i.e., when the member joined the health 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: If a health plan's denominator for a measure is too small (i.e., less than 30) to report a valid rate, the result/rate is NA.

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 finding.

A measure has an *NR* audit finding for one of two reasons:

1. The health plan chose not to report the measure.
2. The health 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.

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 over-read process should be conducted by a health plan as part of its medical record review process. Auditors overread a sample of the health plan's medical records as part of the audit process.

PCV

Pneumococcal conjugate vaccine

Pharmacy Data

Data derived from the provision of pharmacy services.

Primary Source Verification

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

Proprietary Codes

Unique billing codes developed by a health plan that 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.

Record of Administration, Data Management, and Processes (Roadmap)

The Roadmap, completed by each health plan undergoing the HEDIS audit process, provides information to auditors regarding the health plan's systems for collecting and processing data for HEDIS reporting. Auditors review the Roadmap prior to the scheduled on-site 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 core measures' source code, 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.

Previously the Baseline Assessment Tool (BAT).

Retroactive Enrollment

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

Revenue Codes

Cost codes for facilities to bill based on the categories of services, procedures, supplies, and materials.

Sample Frame

Members of the eligible population who meet all criteria specified in the measure from which a systematic sample is drawn.

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.

T-test Validation

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

UB-04 Claims

A type of claim form used to bill hospital-based inpatient, outpatient, emergency room and clinic drugs, supplies, and/or services. UB-04 codes are primarily Type of Bill and Revenue codes. The UB-04 replaced the UB-92.

Vendor

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

VZV

Varicella zoster virus (chicken pox) vaccine.