State of Colorado

Colorado Department of Health Care Policy & Financing

2007 HEDIS® AGGREGATE REPORT

for

Child Health Plan *Plus*

September 2007

HSAG HEALTH SERVICES ADVISORY GROUP

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ACKNOWLEDGMENTS AND COPYRIGHTS

1. Overview

The Colorado Department of Health Care Policy & Financing (the Department) operates the Colorado Children's Health Insurance Plan (CHIP). The CHIP program is also known as Child Health Plan *Plus* (CHP+). The Department contracted with four health maintenance organizations (HMOs) for State fiscal year (FY) 06–07 to deliver health care services: Colorado Access (CO Access), Denver Health Medical Plan, Inc. (DHMP), Rocky Mountain Health Plans (RMHP), and Kaiser Permanente (Kaiser). In areas of the State where there was no HMO coverage, the CHP+ program ran a managed care network (MCN) via direct contracts with providers, hospitals, and ancillary services.

The Department contracted with Health Services Advisory Group, Inc. (HSAG) to provide external quality review organization (EQRO) services for the Colorado CHP+ program. The EQRO scope of work included calculation of a set of performance measures for the CHP+ MCN and the development of a composite report, combining HMO performance measure data with MCN data.

The Department selected the Healthcare Effectiveness Data and Information Set (HEDIS®), which is the most widely used set of performance measures in the managed care industry today. The Department identified a subset of HEDIS measures that were calculated and reported by each HMO. Each HMO underwent a HEDIS Compliance Audit™ through a licensed audit organization and submitted the audited results and audit statement to HSAG. HEDIS results for the MCN were calculated by HSAG and were not audited per the Department's specifications. The National Committee for Quality Assurance (NCQA) *HEDIS 2007 Technical Specifications, Volume 2* was used for calculation of the measures. The CHP+ program selected the following 2007 HEDIS measures:

- *Well-Child Visits in the First 15 Months of Life*
- *Well-Child Visits in the Third, Fourth, Fifth, and Sixth Years of Life*
- *Adolescent Well-Care Visits*
- *Use of Appropriate Medications for People With Asthma*
- *Children and Adolescents' Access to Primary Care Practitioners*
- *Appropriate Treatment for Children With Upper Respiratory Infection*
- *Appropriate Testing for Children With Pharyngitis*

This is the third year that the Department is implementing a performance measurement system to measure CHP+ performance through an objective process and compare performance against identified goals. The Department chose to use the HEDIS measures that were developed for Medicaid, which is in accordance with NCQA specifications for the CHIP product line. It is important to note that the MCN and RMHP reported all rates using the administrative-only method of data collection, even if the hybrid method (i.e., both administrative and medical record review) was an available option. The other three HMOs, on the other hand, used the hybrid method for data collection on applicable measures. Therefore, caution should be exercised when comparing the populations because the hybrid method allows for administrative data to be mitigated by medical record review; therefore, rates using the hybrid method tend to be higher.

This report displays HEDIS measure results in two formats: tabular and graphical. The Colorado CHP+ program weighted averages and the individual health plan's results are displayed in all figures. Health plans that had a denominator of less than 30 for a given measure were included in the calculation of the CHP+ program weighted averages, although the individual health plan rates are considered "Not Applicable," according to NCQA/HEDIS standards, policies, and procedures, because the denominator is considered too small to report a valid rate.

Measure Calculation—Managed Care Network

HSAG was responsible for calculation of the selected HEDIS measures for the MCN. To calculate the measures, HSAG completed the following steps:

- **Identify necessary data elements:** Based on the list of HEDIS measures selected for reporting by the Department, HSAG's audit staff identified the data elements that were necessary to produce the HEDIS measures.
- **Obtain MCN data:** Claims, enrollment, provider, pharmacy, and other data for the State's MCN were processed by a third-party administrator (TPA) as instructed by the Department. HSAG obtained the data dictionary and the raw data for calendar years 2005 and 2006 from the TPA.
- **Format data for HEDIS calculation:** HSAG contracted with an NCQA-certified software vendor, Austin Provider Solutions (APS), for calculation of the measures. HSAG prepared the data in the vendor-specified format, validated the data against the raw source data, and forwarded the files to APS.
- **Calculate the HEDIS measures:** APS calculated the selected HEDIS measures using NCQA-certified software. NCQA certification ensures that the measure calculations are performed in full compliance with NCQA HEDIS technical specifications.
- **Review the measure results:** Once the HEDIS measure results were available, HSAG staff reviewed the results for reasonability and accuracy. The results are included in this report.

Collection of HMO HEDIS Data

The HMOs were responsible for calculating the selected measures for their respective CHP+ populations. HSAG developed a data submission template for use by each HMO. The HMO staff populated the template with the HEDIS measure results and forwarded it to HSAG. Each HMO contracted with an NCQA-licensed audit organization and underwent an NCQA HEDIS Compliance Audit. A Statistical Analysis Software (SAS) dataset was prepared and validated by HSAG analysts. All figures and tables displayed in this report were produced from the SAS dataset.

3. Tabular Results

This section presents tables showing the results for the following HEDIS measures:

- *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*
- *Use of Appropriate Medications for People With Asthma*
- *Children and Adolescents' Access to Primary Care Practitioners*
- *Appropriate Treatment for Children With Upper Respiratory Infection*
- *Appropriate Testing for Children With Pharyngitis*

Table 3-1—Colorado CHP+ HEDIS 2007 Tabular Results
Well-Child Visits in the First 15 Months of Life

Health Plan Name	Eligible Population	Zero Visits Rate**	6 or More Visits Rate
CHP+ MCN	106	14.2%	14.2%
CO Access	31	3.3%*	50.0%*
DHMP	7	NA	NA
KAISER	18	NA	NA
RMHP	18	NA	NA
2007 CO CHP+ Medicaid Weighted Average		9.5%	20.8%
2006 CO CHP+ Medicaid Weighted Average		12.9%	26.3%
2005 CO CHP+ Medicaid Weighted Average		8.6%	28.3%
National HEDIS 2006 Medicaid 50th Percentile		2.0%	50.0%

NA indicates that the health plan followed the specifications for producing a reportable denominator, but the denominator was too small to report a valid rate, resulting in a Not Applicable (NA) rate.

**The measure was collected and reported using the hybrid methodology.*

***For this measure, a lower rate indicates better performance (i.e., low rates of no visits indicate better care).*

Table 3-2—Colorado CHP+ HEDIS 2007 Tabular Results
Well-Child Visits in the Third, Fourth, Fifth, and Sixth Years of Life, and Adolescent Well-Care Visits

Health Plan Name	3rd–6th Years of Life		Adolescents	
	Eligible Population	Rate	Eligible Population	Rate
CHP+ MCN	1,071	40.8%	2,293	29.7%
CO Access	1,089	63.8%*	2,620	48.0%*
DHMP	229	62.0%*	517	36.5%*
KAISER	210	61.4%*	554	51.3%*
RMHP	239	61.9%	542	35.8%
2007 CO CHP+ Medicaid Weighted Average		54.6%		39.9%
2006 CO CHP+ Medicaid Weighted Average		33.6%		21.2%
2005 CO CHP+ Medicaid Weighted Average		48.4%		33.4%
National HEDIS 2006 Medicaid 50th Percentile		64.8%		39.4%

**The measure was collected and reported using the hybrid methodology.*

Table 3-3—Colorado CHP+ HEDIS 2007 Tabular Results
Use of Appropriate Medications for People With Asthma

Health Plan Name	5 to 9 Years of Age		10 to 17 Years of Age		18 to 56 Years of Age		Combined	
	Eligible Population	Rate	Eligible Population	Rate	Eligible Population	Rate	Eligible Population	Rate
CHP+ MCN	25	NA	48	87.5%	5	NA	78	88.5%
CO Access	30	100.0%	55	90.9%	6	NA	91	94.5%
DHMP	2	NA	7	NA	0	NA	9	NA
KAISER	0	NA	0	NA	0	NA	0	NA
RMHP	4	NA	9	NA	0	NA	13	NA
2007 CO CHP+ Medicaid Weighted Average		96.7%		90.8%		NA		92.7%
2006 CO CHP+ Medicaid Weighted Average		80.3%		69.8%		NA		72.2%
2005 CO CHP+ Medicaid Weighted Average		77.2%		72.2%		NA		73.8%
National HEDIS 2006 Medicaid 50th Percentile		90.2%		87.4%		84.9%		87.1%

NA indicates that the health plan followed the specifications for producing a reportable denominator, but the denominator was too small to report a valid rate, resulting in a Not Applicable (NA) rate.

Table 3-4—Colorado CHP+ HEDIS 2007 Tabular Results
Children and Adolescents' Access to Primary Care Practitioners

Health Plan Name	12 to 24 Months of Age		25 Months to 6 Years of Age		7 to 11 Years of Age		12 to 19 Years of Age	
	Eligible Population	Rate	Eligible Population	Rate	Eligible Population	Rate	Eligible Population	Rate
CHP+ MCN	233	79.4%	1,287	68.1%	856	85.3%	1,268	86.9%
CO Access	140	95.7%	1,280	80.1%	766	89.2%	1,167	88.7%
DHMP	17	NA	272	83.1%	150	85.3%	185	86.0%
KAISER	33	97.0%	238	87.8%	207	91.8%	316	93.7%
RMHP	49	98.0%	296	86.8%	188	88.8%	288	90.6%
2007 CO CHP+ Medicaid Weighted Average		87.9%		76.9%		87.6%		88.5%
2006 CO CHP+ Medicaid Weighted Average		72.9%		61.8%		81.5%		82.1%
2005 CO CHP+ Medicaid Weighted Average		90.5%		78.1%		88.3%		89.2%
National HEDIS 2006 Medicaid 50th Percentile		94.8%		85.4%		84.9%		83.4%

NA indicates that the health plan followed the specifications for producing a reportable denominator, but the denominator was too small to report a valid rate, resulting in a Not Applicable (NA) rate.

Table 3-5—Colorado CHP+ HEDIS 2007 Tabular Results
Appropriate Treatment for Children With Upper Respiratory Infection

Health Plan Name	Eligible Population	Rate
CHP+ MCN	1,020	85.7%
CO Access	1,422	88.1%
DHMP	174	93.7%
KAISER	67	95.5%
RMHP	262	90.8%
2007 CO CHP+ Medicaid Weighted Average		88.0%
2006 CO CHP+ Medicaid Weighted Average		85.6%
2005 CO CHP+ Medicaid Weighted Average		87.8%
National HEDIS 2006 Medicaid 50th Percentile		82.7%

Table 3-6—Colorado CHP+ HEDIS 2007 Tabular Results
Appropriate Testing for Children With Pharyngitis

Health Plan Name	Eligible Population	Rate
CHP+ MCN	488	61.7%
CO Access	1,011	71.4%
DHMP	69	85.5%
KAISER	61	96.7%
RMHP	152	78.3%
2007 CO CHP+ Medicaid Weighted Average		70.7%
2006 CO CHP+ Medicaid Weighted Average		68.7%
2005 CO CHP+ Medicaid Weighted Average		69.6%
National HEDIS 2006 Medicaid 50th Percentile		56.2%

Table 3-7—Colorado CHP+ HEDIS 2007 Tabular Results
Overall Results

HEDIS Measures	CHP+ MCN	CO Access	DHMP	KAISER	RMHP	CO CHP+ 2007 Weighted Average
Well-Child Visits in the First 15 Months of Life—Zero Visits	14.2%	3.3%	NA	NA	NA	9.5%
Well-Child Visits in the First 15 Months of Life—Six or More Visits	14.2%	50.0%	NA	NA	NA	20.8%
Well-Child Visits in the Third, Fourth, Fifth, and Sixth Years of Life	40.8%	63.8%	62.0%	61.4%	61.9%	54.6%
Adolescent Well-Care Visits	29.7%	48.0%	36.5%	51.3%	35.8%	39.9%
Use of Appropriate Medications for People With Asthma—5–9 Years	NA	100.0%	NA	NA	NA	96.7%
Use of Appropriate Medications for People With Asthma—10–17 Years	87.5%	90.9%	NA	NA	NA	90.8%
Use of Appropriate Medications for People With Asthma—18–56 Years	NA	NA	NA	NA	NA	NA
Use of Appropriate Medications for People With Asthma—Combined	88.5%	94.5%	NA	NA	NA	92.7%
Children and Adolescents' Access to Primary Care Practitioners—12–24 Months	79.4%	95.7%	NA	97.0%	98.0%	87.9%
Children and Adolescents' Access to Primary Care Practitioners—25 Months–6 Years	68.1%	80.1%	83.1%	87.8%	86.8%	76.9%
Children and Adolescents' Access to Primary Care Practitioners—7–11 Years	85.3%	89.2%	85.3%	91.8%	88.8%	87.6%
Children and Adolescents' Access to Primary Care Practitioners—12–19 Years	86.9%	88.7%	86.0%	93.7%	90.6%	88.5%
Appropriate Treatment for Children With Upper Respiratory Infection	85.7%	88.1%	93.7%	95.5%	90.8%	88.0%
Appropriate Testing for Children With Pharyngitis	61.7%	71.4%	85.5%	96.7%	78.3%	70.7%

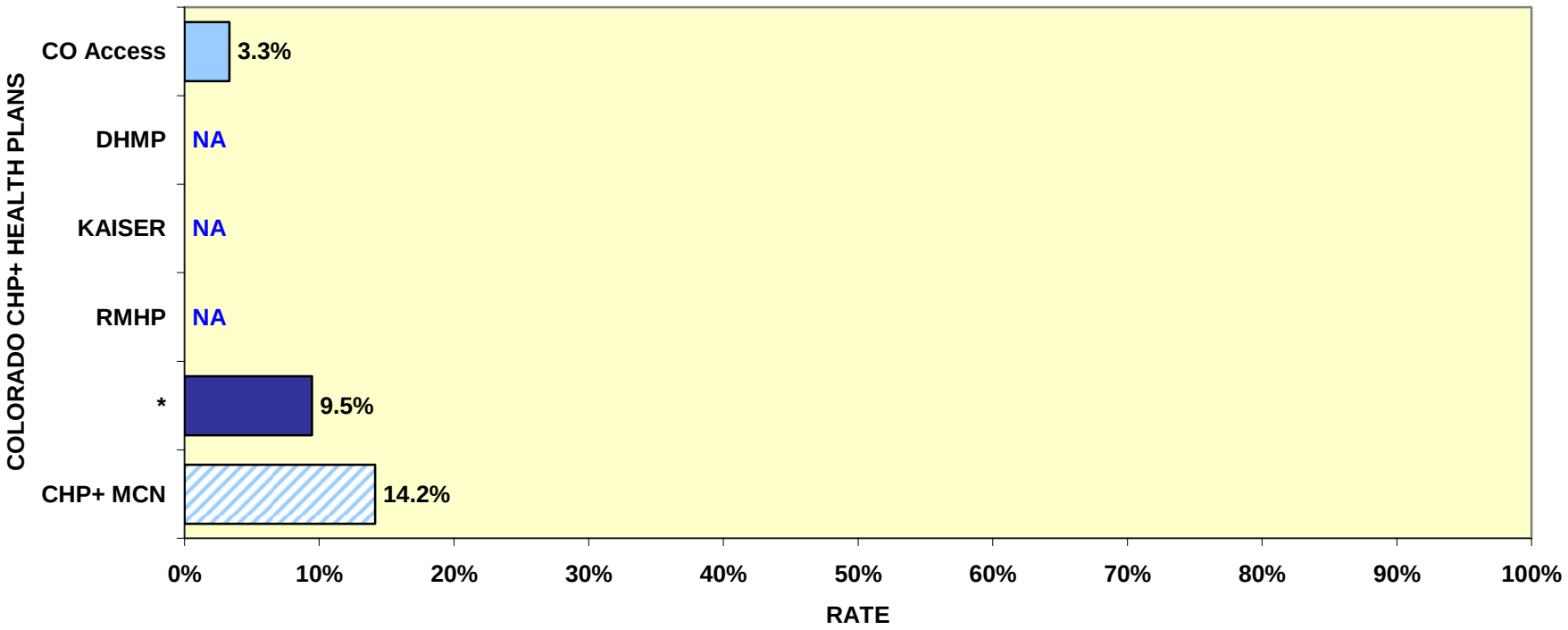
NA indicates that the health plan followed the specifications for producing a reportable denominator, but the denominator was too small to report a valid rate, resulting in a Not Applicable (NA) rate.

4. Graphical Results

This section presents graphs showing Colorado CHP+ HEDIS 2007 results for the following measures:

- *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-Child Visits*
- *Use of Appropriate Medications for People With Asthma—5 to 9 Years of Age*
- *Use of Appropriate Medications for People With Asthma—10 to 17 Years of Age*
- *Use of Appropriate Medications for People With Asthma—Combined Rate*
- *Children and Adolescents' Access to Primary Care Practitioners—12 to 24 Months of Age*
- *Children and Adolescents' Access to Primary Care Practitioners—25 Months to 6 Years of Age*
- *Children and Adolescents' Access to Primary Care Practitioners—7 to 11 Years of Age*
- *Children and Adolescents' Access to Primary Care Practitioners—12 to 19 Years of Age*
- *Appropriate Treatment for Children With Upper Respiratory Infection*
- *Appropriate Testing for Children With Pharyngitis*

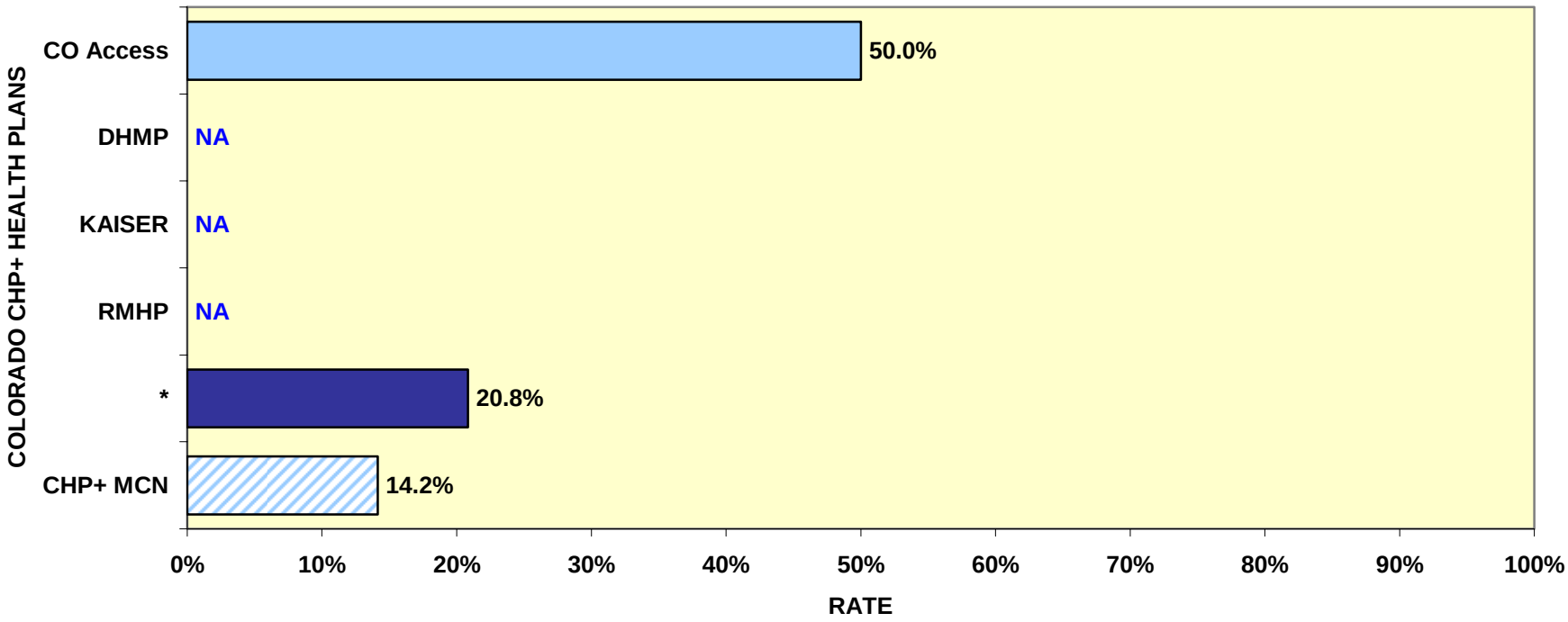
Figure 4-1—Colorado CHP+ HEDIS 2007 Graphical Results
Well-Child Visits in the First 15 Months of Life—Zero Visits



* Colorado CHP+ weighted average

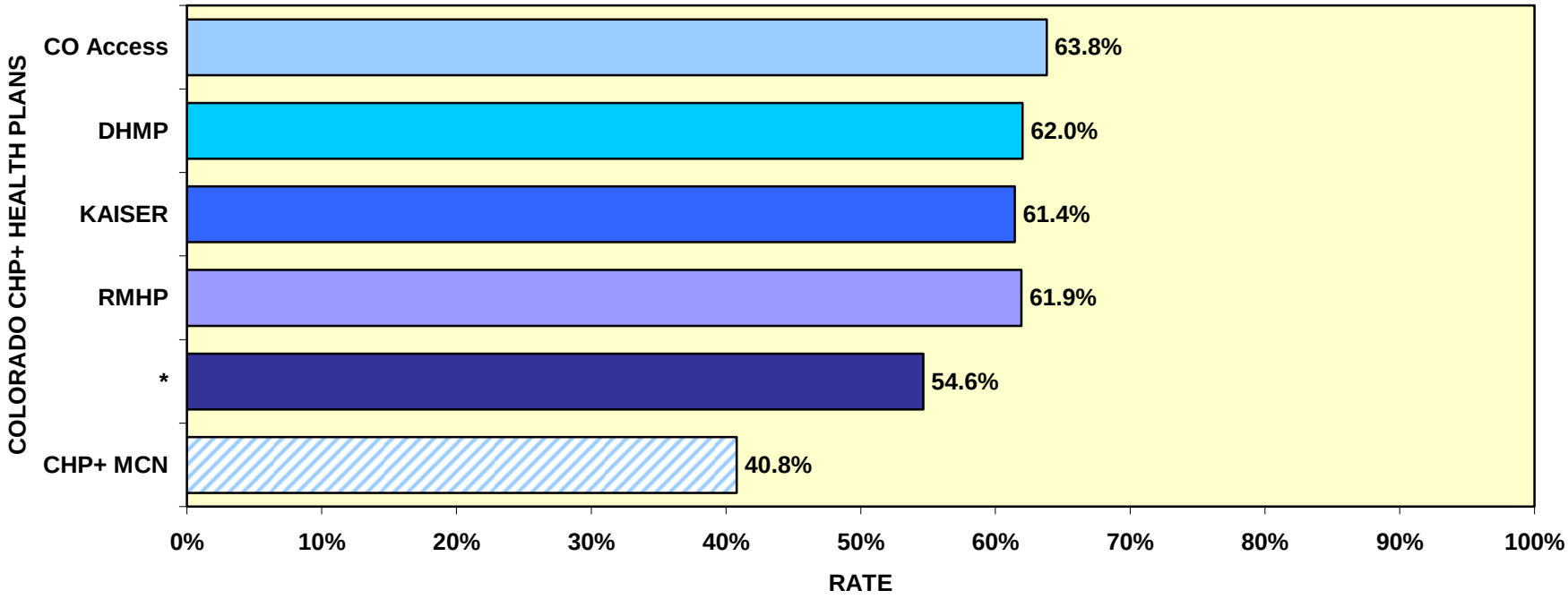
Note: *The figure shows the percentage of children who received **no** visits by 15 months of age. For this measure, a lower rate indicates better performance (i.e., low rates of no visits indicate better care).*

Figure 4-2—Colorado CHP+ HEDIS 2007 Graphical Results
Well-Child Visits in the First 15 Months of Life—Six or More Visits



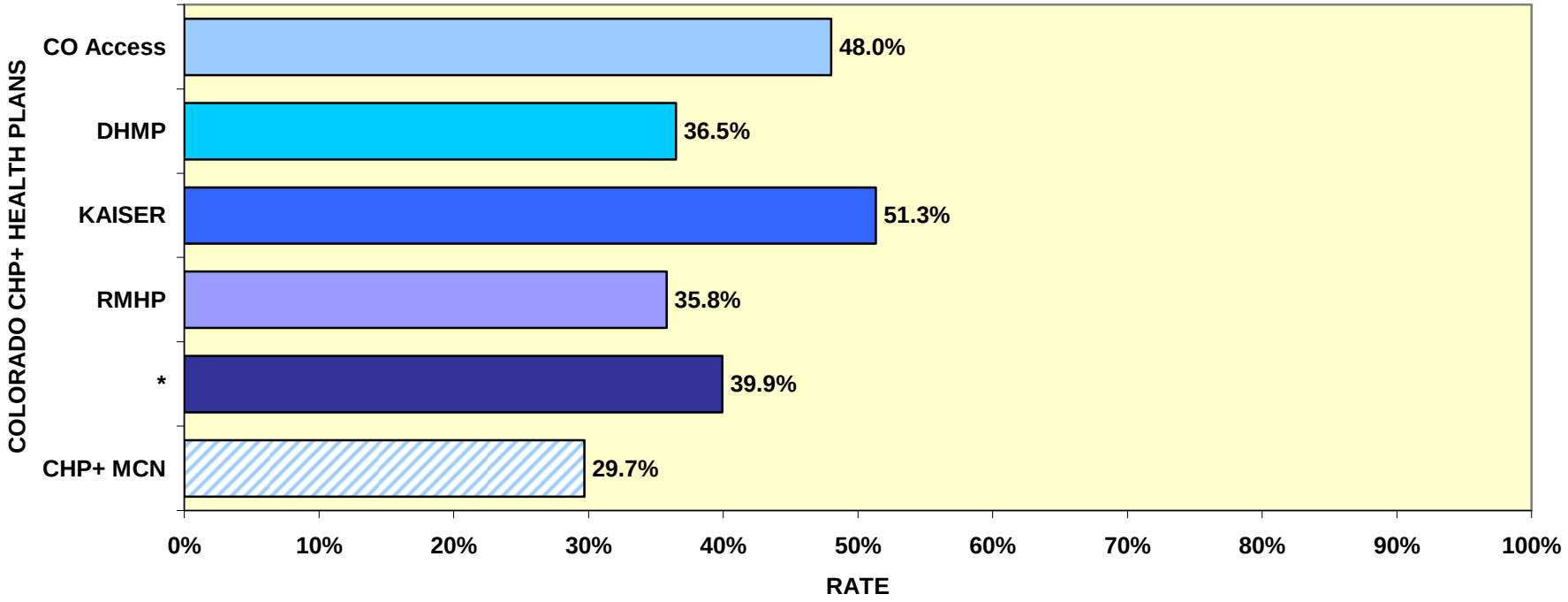
* Colorado CHP+ weighted average

Figure 4-3—Colorado CHP+ HEDIS 2007 Graphical Results
Well-Child Visits in the Third, Fourth, Fifth, and Sixth Years of Life



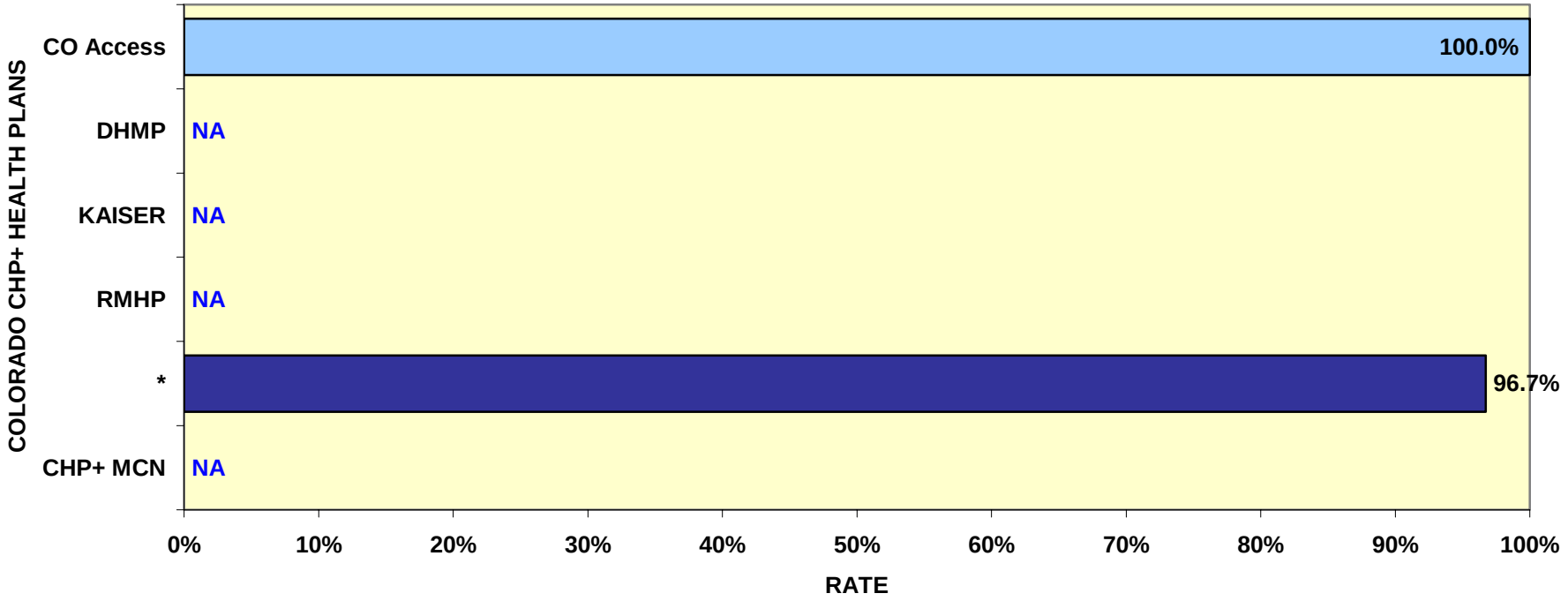
* Colorado CHP+ weighted average

Figure 4-4—Colorado CHP+ HEDIS 2007 Graphical Results
Adolescent Well-Care Visits



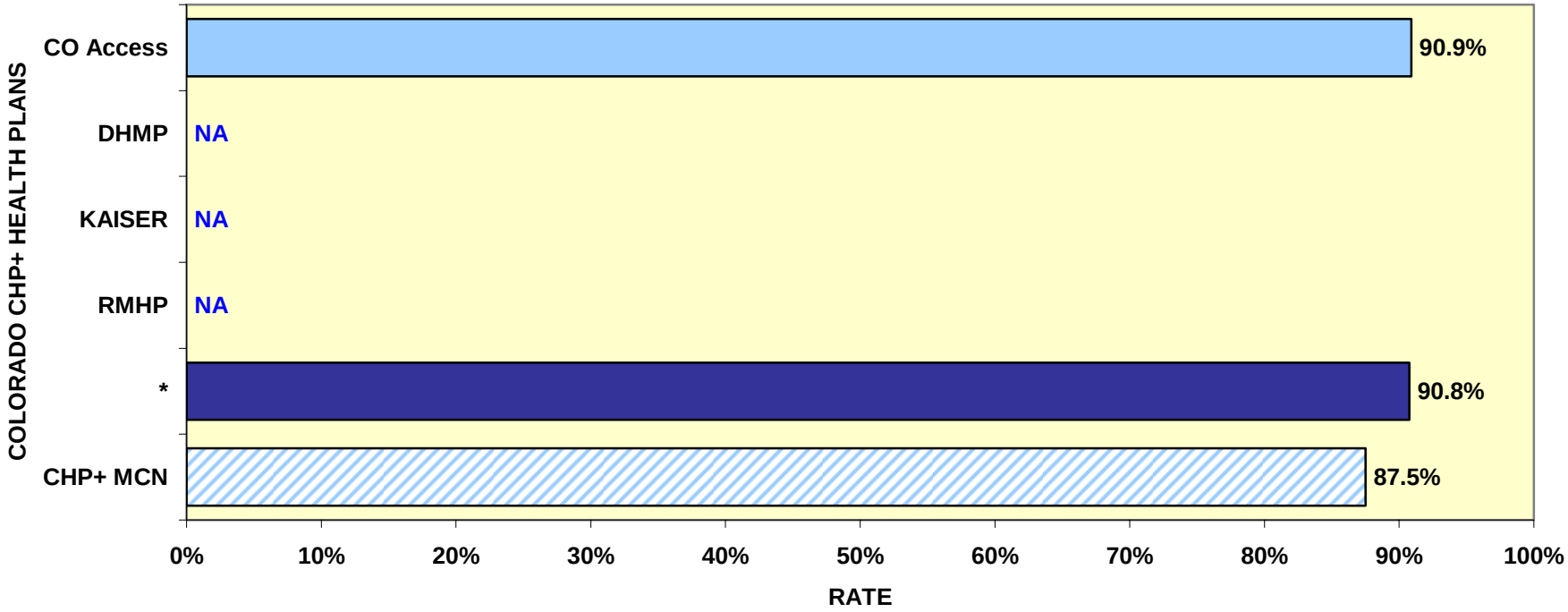
* Colorado CHP+ weighted average

Figure 4-5—Colorado CHP+ HEDIS 2007 Graphical Results
Use of Appropriate Medications for People With Asthma—5 to 9 Years of Age



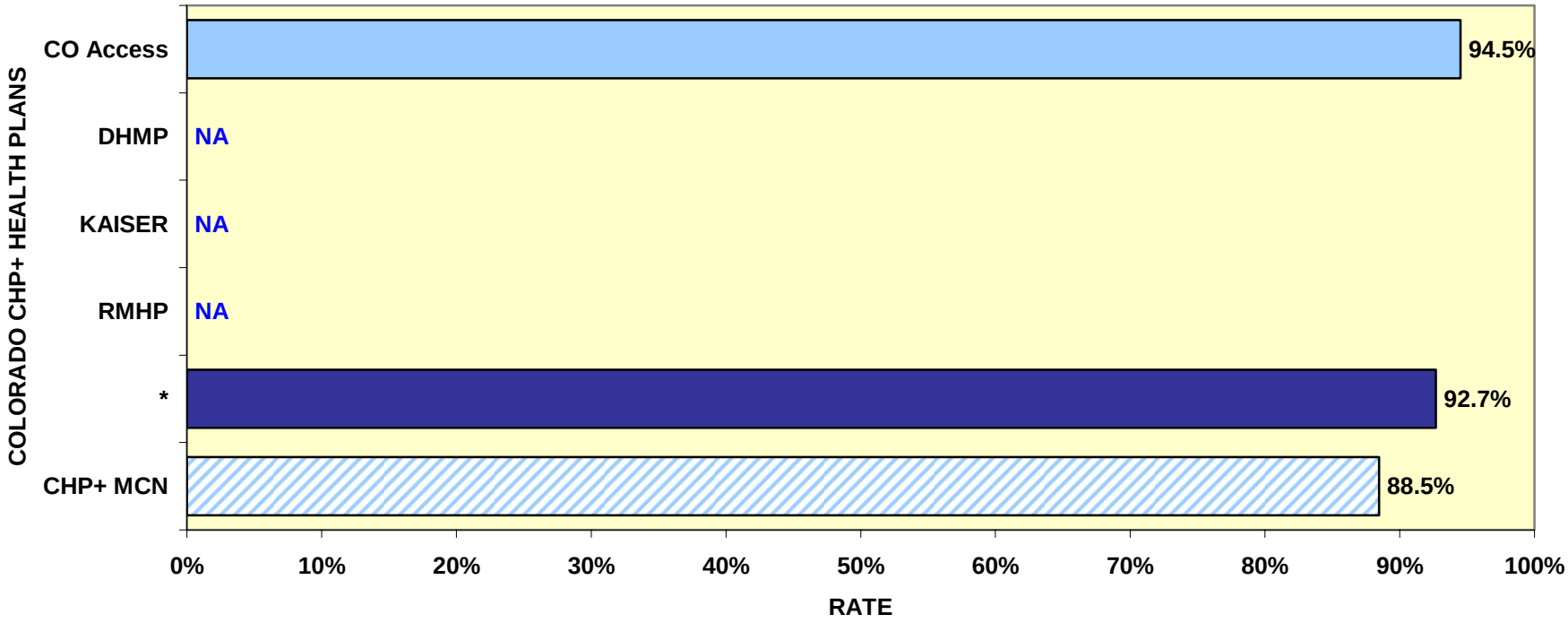
* Colorado CHP+ weighted average

Figure 4-6—Colorado CHP+ HEDIS 2007 Graphical Results
Use of Appropriate Medications for People With Asthma—10 to 17 Years of Age



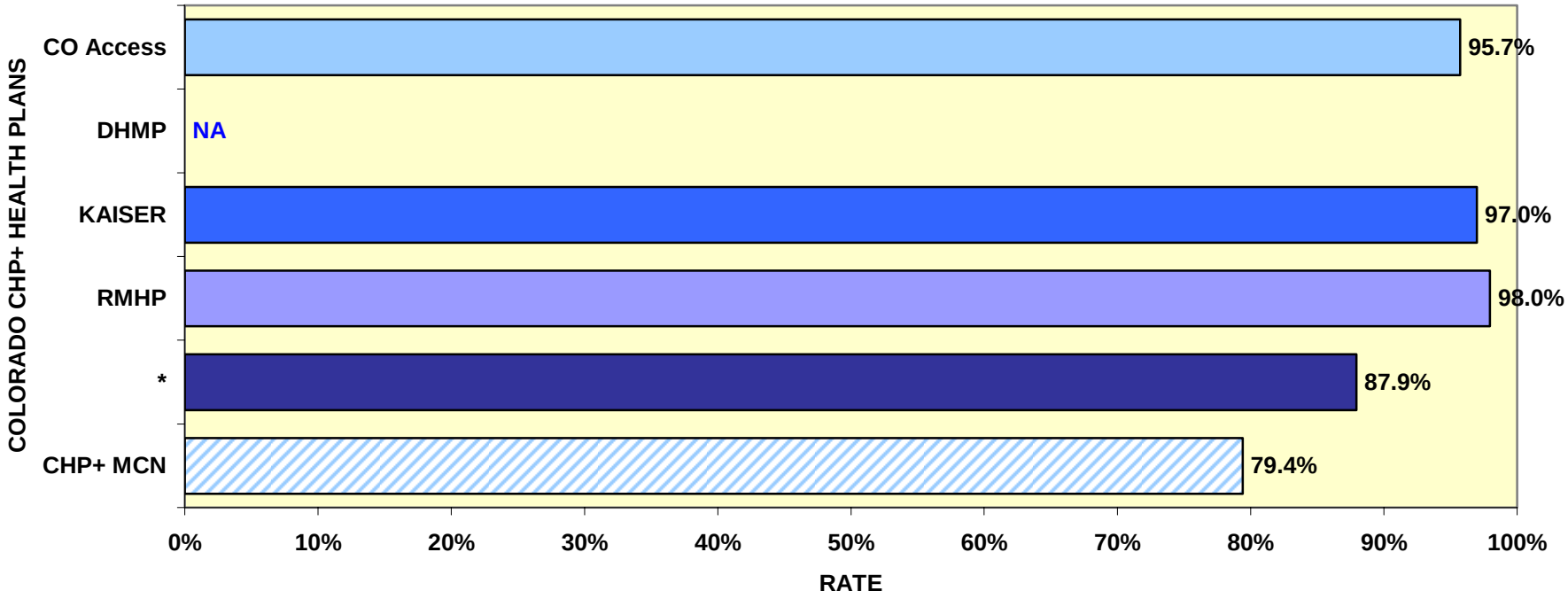
* Colorado CHP+ weighted average

Figure 4-7—Colorado CHP+ HEDIS 2007 Graphical Results
Use of Appropriate Medications for People With Asthma—Combined Rate



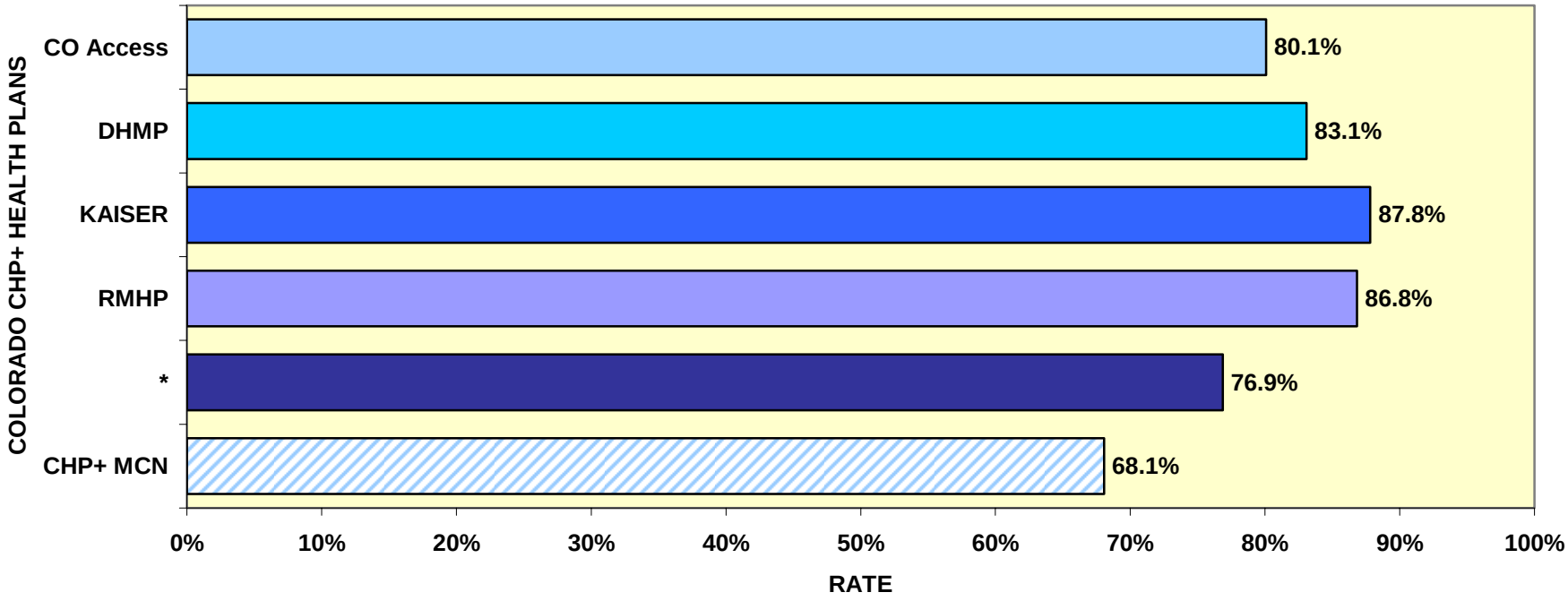
* Colorado CHP+ weighted average

Figure 4-8—Colorado CHP+ HEDIS 2007 Graphical Results
Children and Adolescents' Access to Primary Care Practitioners—12 to 24 Months of Age



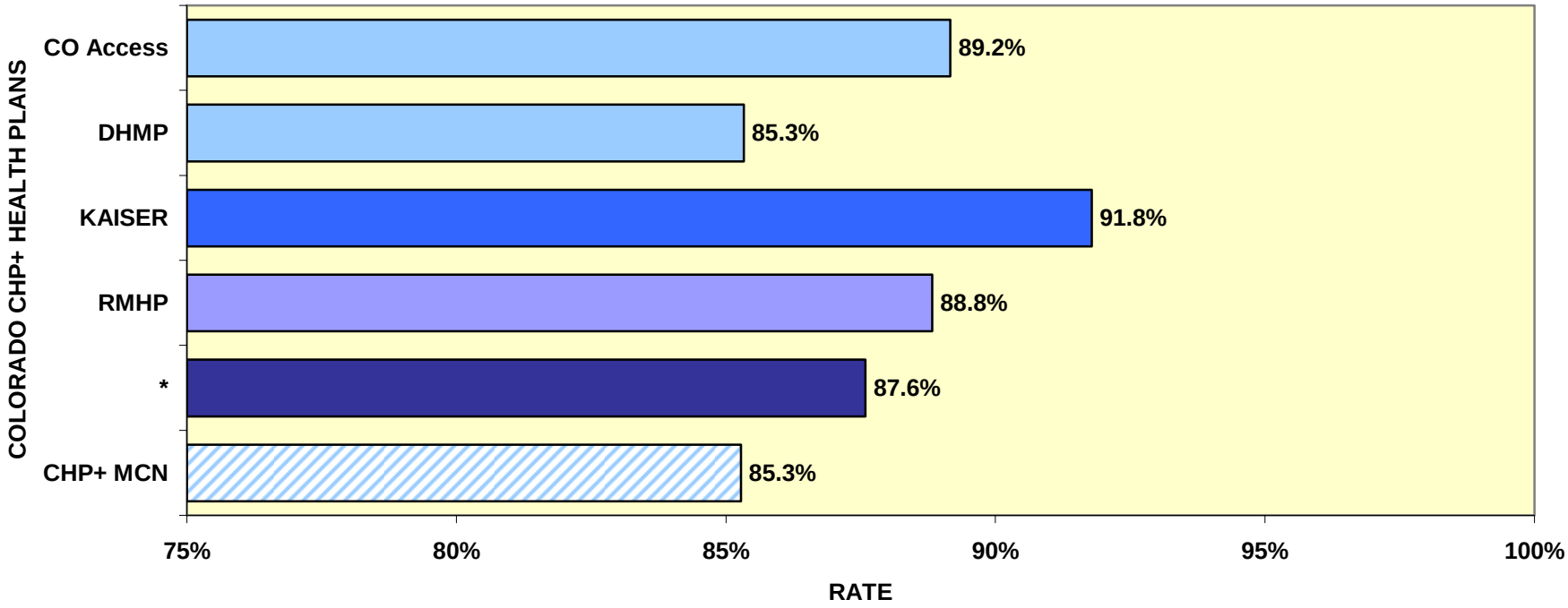
* Colorado CHP+ weighted average

Figure 4-9—Colorado CHP+ HEDIS 2007 Graphical Results
Children and Adolescents' Access to Primary Care Practitioners—25 Months to 6 Years of Age



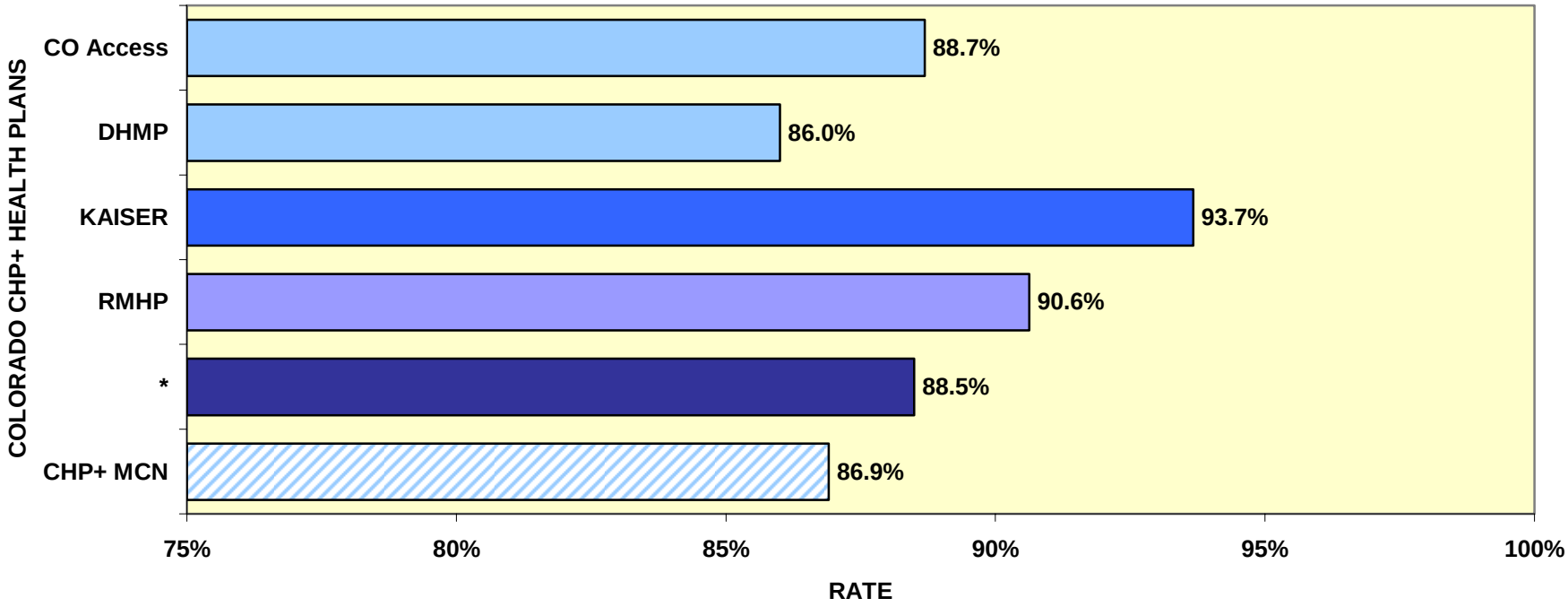
* Colorado CHP+ weighted average

Figure 4-10—Colorado CHP+ HEDIS 2007 Graphical Results
Children and Adolescents' Access to Primary Care Practitioners—7 to 11 Years of Age



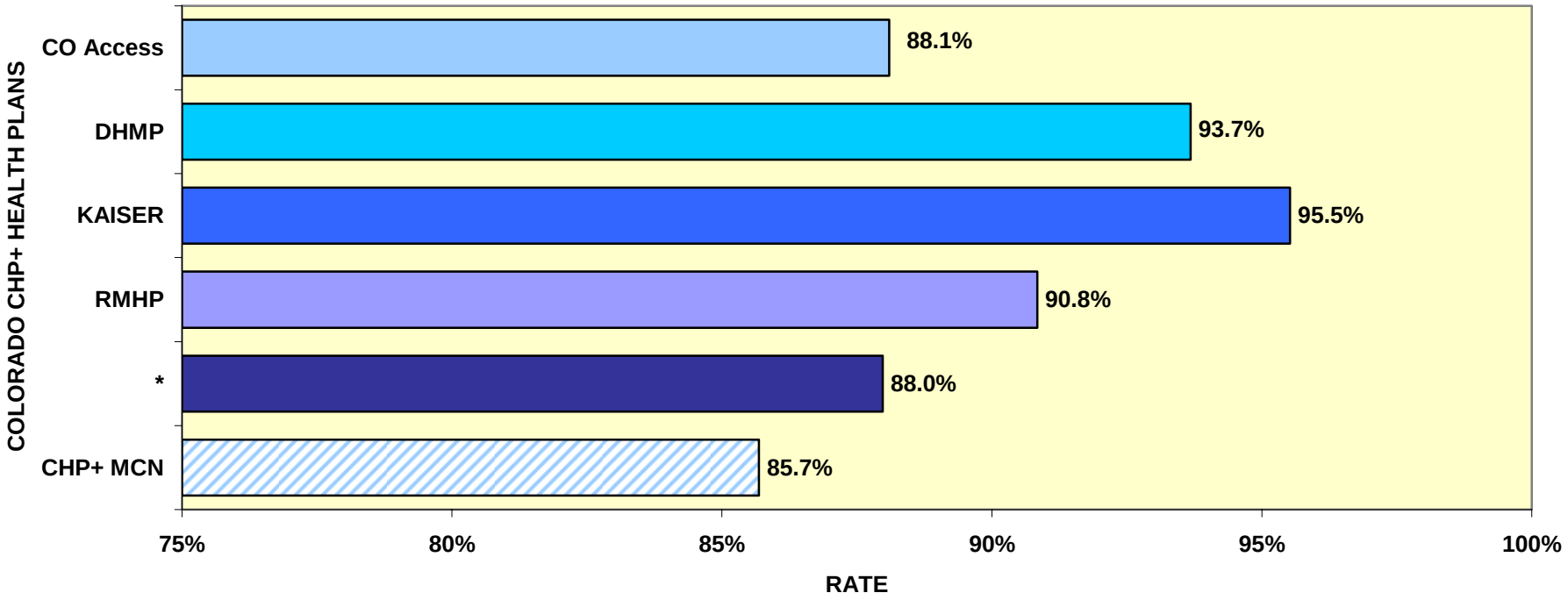
* Colorado CHP+ weighted average

Figure 4-11—Colorado CHP+ HEDIS 2007 Graphical Results
Children and Adolescents' Access to Primary Care Practitioners—12 to 19 Years of Age



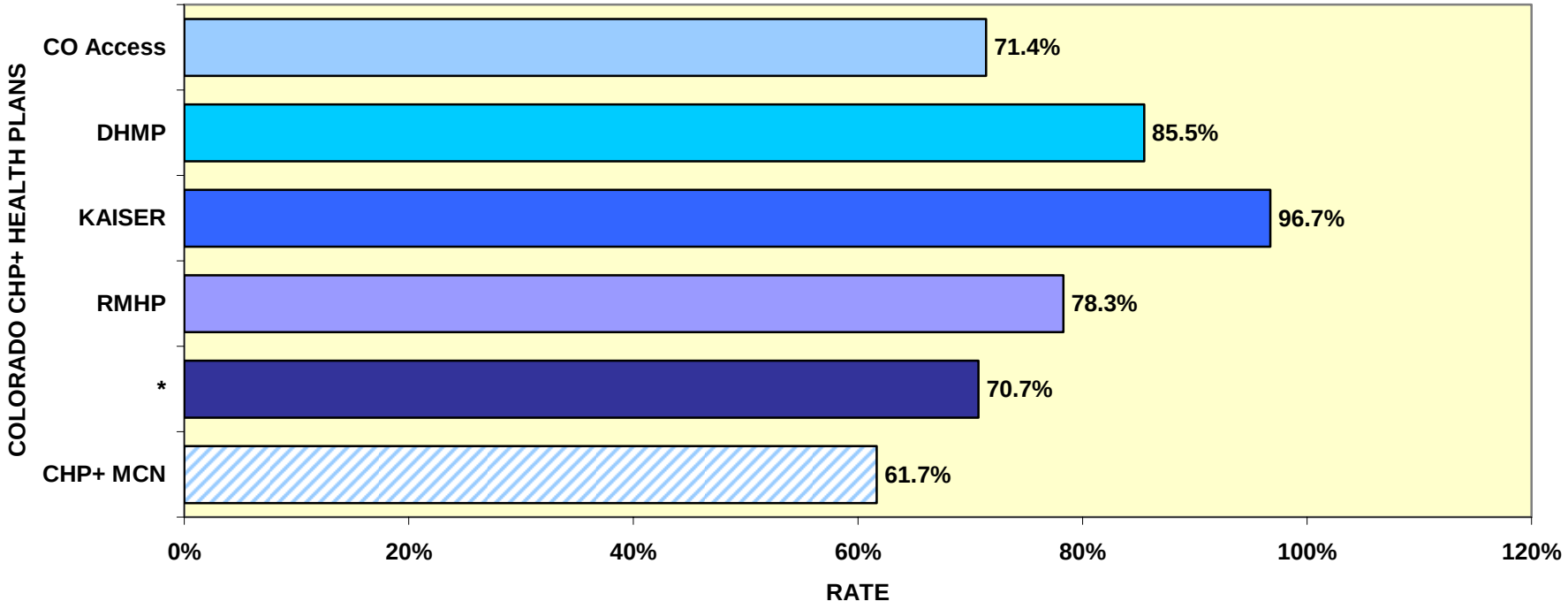
* Colorado CHP+ weighted average

Figure 4-12—Colorado CHP+ HEDIS 2007 Graphical Results
Appropriate Treatment for Children With Upper Respiratory Infection



* Colorado CHP+ weighted average

Figure 4-13—Colorado CHP+ HEDIS 2007 Graphical Results
Appropriate Testing for Children With Pharyngitis



* Colorado CHP+ weighted average

Conclusions

In the third year of HEDIS performance measure reporting, the Colorado CHP+ program observed improvements for the HEDIS measures from the previous year. Although increases were observed, when rates were compared to the national HEDIS 2006 Medicaid 50th percentile, there was still room for improvement for the health plans in most of the performance measure results.

For the *Well-Child Visits in the First 15 Months of Life—Zero Visits* measure, a lower rate of no visits indicates better care; therefore, better performance is marked by falling below the 50th percentile rather than above. Yet, both Colorado Access and the MCN exceeded the national HEDIS 2006 Medicaid 50th percentile. Both health plans' rates did, however, decline from the previous year, meaning their performance improved somewhat.

For the *Well-Child Visits in the Third, Fourth, Fifth, and Sixth Years of Life* measure, the CO CHP+ program's weighted average of 54.6 percent fell between the national HEDIS 2006 Medicaid 10th and 25th percentiles, and none of the health plans exceeded the 50th percentile. The CO CHP+ weighted average did, however, increase by 21.0 percentage points from 2006 to 2007. For the *Adolescent Well-Care Visits* measure, the CO CHP+ program's weighted average exceeded the 50th percentile, and two of the health plans (CO Access and Kaiser) reported rates above the national HEDIS 2006 Medicaid 75th percentile. An improvement of 18.7 percentage points was observed for the CO CHP+ weighted average for the *Adolescent Well-Care Visits* measure.

Within the Colorado CHP+ program, three of the health plans (DHMP, Kaiser, and RMHP) did not have enough members in the eligible population to report rates for the *Use of Appropriate Medications for People With Asthma* measures. In addition, as was expected based on the age parameters of the Colorado CHP+ population, none of the health plans had a sufficient eligible population size to report the *Use of Appropriate Medications for People With Asthma—18 to 56 Years* age cohort. For the age cohorts that CO Access and the MCN could report, all rates improved from the previous year. For the two age groups that the MCN was able to report, the MCN saw increases of more than 20 percentage points from 2006 to 2007. In addition, the CO CHP+ program's weighted averages also increased by a minimum of 12 percentage points. The rates for the MCN, CO Access, and the CO CHP+ weighted average all exceeded the national HEDIS 2006 Medicaid 50th percentile.

All of Kaiser's and RMHP's rates exceeded the national HEDIS 2006 Medicaid 50th percentile for the *Children and Adolescent's Access to Primary Care Practitioners*. The MCN's performance for the two younger age groups, *12 to 24 Months* and *25 Months to 6 Years*, was lower than the other health plans' rates by a minimum of 15 percentage points. In addition, the CO CHP+ program's weighted average was below the national HEDIS 2006 Medicaid 50th percentile for these two age groups. The weighted averages for all the age groups did, however, increase from 2006 to 2007. The increases ranged from 6.1 percentage points to 15.1 percentage points.

All of the health plans' rates and the CO CHP+ weighted average exceeded the national HEDIS 2006 Medicaid 50th percentile for the *Appropriate Treatment for Children With Upper Respiratory Infection* measure. In fact, both DHMP and Kaiser exceeded the 90th percentile, and RMHP exceeded the 75th percentile. The health plans' results fell within a relatively narrow range, indicating less variability across health plans.

For the *Appropriate Testing for Children With Pharyngitis* measure, all of the health plans and the CO CHP+ weighted average outperformed the national HEDIS 2006 Medicaid 50th percentile. In addition, DHMP, Kaiser, and RMHP exceeded the 90th percentile, and CO Access and the CO CHP+ weighted average exceeded the 75th percentile for this measure. Of notable improvement was Kaiser, whose rate improved by 15.5 percentage points. The rates for three of the health plans (the MCN, DHMP, and RMHP) decreased from 2006 to 2007. DHMP's rate decreased by almost 7 percentage points.

When interpreting these results, strong caution must be exercised for the MCN. The reported rates were not audited. In general, most of the MCN's rates for all of the performance measures increased from 2006 to 2007, some drastically. Last year's evaluation of the MCN's data revealed a potential issue with claims/encounter data completeness; however, this issue was not explored to determine the extent of the missing data. Still, the increase in rates suggests that the MCN has enhanced the completeness of its claims/encounter data.

Recommendations

The Balanced Budget Act of 1997 (BBA), 42 Code of Federal Regulations (CFR) §457.710 requires that State Children's Health Insurance Programs evaluate performance using measurements that are objective, are independently verifiable, and can be used to gauge performance against State-specified goals. By requiring the health plans to collect and report HEDIS performance measures, and by evaluating them against identified performance targets, the Department has met this requirement. In compiling this report, HSAG noted the following opportunities for improvement:

- Consider implementing the HEDIS Compliance Audit process for the MCN. Although the MCN's structure and operations are different from those of the other health plans, NCQA's HEDIS Compliance Audit methodology could be used to validate the performance measure data and explore any potential issues that could result in a bias to the reported rates. This would help to ensure validity and reliability of the data being compared. HSAG has the capabilities and resources to conduct this audit for the MCN if the Department chooses to have the MCN follow NCQA's HEDIS Compliance Audit methodology.
- Re-evaluate the Department-established performance goals based on the 2007 performance of the health plans. Adjusting the goals to allow for the health plans to realize improvement can be very effective. The Department may also want to consider implementing an incentive program to reward high performance.
- Encourage the health plans to implement targeted performance improvement activities specifically for the CHP+ population. Barrier analyses of this particular population should be conducted by each health plan to identify specific interventions that may be successful for improving results.

- Consider adding new HEDIS measures to the Department-established list. Measures such as *Childhood Immunization Status* and *Lead Screening in Children* (a new HEDIS measure for 2008) could potentially be beneficial in evaluating the CHP+ population. However, before implementing new HEDIS measures, the Department should investigate how readily available these data are and the effort needed to obtain them.
- Modify the data collection requirements so that all health plans use the hybrid method for HEDIS-measure data collection, where applicable. Although the hybrid method is more labor intensive due to the inclusion of medical record review, the hybrid method generally produces higher rates.