

**HEDIS 2000**  
**Health Plan Employer Data & Information Set**  
**Evaluation of Quality of Care**  
**Delivered to Colorado Medicaid Clients in 1999**

**August 29, 2000**



**State of Colorado**

Department of Health Care Policy and Financing  
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## **Executive Summary**

As part of a comprehensive quality assurance effort, the Department of Health Care Policy and Financing (Department) required health plans to calculate select Health Plan Employer Data and Information Set (HEDIS) 2000 measures for care delivered to clients in calendar year 1999. The measures included children, adolescents, adults with diabetes, and ambulatory and hospital care for all age groups.

Colorado Access (Access), Community Health Plan of the Rockies (CHPR), Kaiser Permanente (Kaiser), Rocky Mountain HMO (Rocky), and United Healthcare (United) each calculated the required measures or contracted with entities to calculate the measures for them. First Peer Review of Colorado, the Department's External Quality Review Organization, contracted with HEDISHelp to calculate the measures for the Primary Care Physician Program (PCPP) and for the Unassigned Fee-for-Service (FFS) population. Each health plan's measures were independently certified by National Committee for Quality Assurance (NCQA) approved auditors.

When evaluating HEDIS results, it is important to remember that for many measures, only a portion of the Medicaid population is represented. Measures utilizing member month calculations include a plan's total population, but other measures are based on specific member populations. Measures often require a person to be continuously enrolled in the health plan for a set amount of time before the person can be included in a measure's denominator (population). This requirement often excludes many Medicaid clients from inclusion in a measure due to the short time spans clients may be eligible to receive benefits. Despite this limitation, HEDIS measures enable the Department to make direct plan-to-plan comparisons on care delivered to clients.

As evident in the results, each health plan has its own strengths and weaknesses. HEDIS results can be used to identify opportunities for improvement within each plan and across all plans. A table summarizing the results from HEDIS 2000 measures may be found at the end of this section.

## **Results**

National Medicaid HMO rates have been calculated for several HEDIS 1999 measures for care received in 1998. Even though they are based on care received one year prior to the results reported here, these rates may be used as benchmarks against which Colorado results may be measured. Colorado Medicaid health plans combined exceeded the national rate for second Measles/Mumps/Rubella vaccinations for adolescents and for children's access to primary care providers for ages 12-24 months and 7-11 years. The combined health plans had fewer emergency department visits and discharges from inpatient stays than the national rate. Of the nine national HMO benchmarks available, Kaiser Permanente and Rocky Mountain HMO each had more favorable rates for eight measures, Colorado Access and the Primary Care Physician Program for five measures, and Community Health Plan of the Rockies for three measures. United Healthcare had more favorable results for two of the five measures for which they were able to report

results. The Unassigned Fee-for-Service did not have any responses more favorable than the national benchmarks.

Similar patterns emerged when comparing individual health plans against total Colorado Medicaid rates. Kaiser Permanente and Rocky Mountain HMO generally returned the most favorable results. Colorado Access and the Primary Care Physician Program produced middle-range results, with Colorado Access generally performing better than the Primary Care Physician Program. Community Health Plan of the Rockies produced the least favorable results of all of the managed care plans, but nearly always outperformed the Unassigned Fee-for-Service. The Unassigned Fee-for-Service returned the least favorable results for almost every measure, often with scores far below the other health plans.

2000 HEDIS (Reporting Year 1999) -- Colorado Medicaid									
HEDIS is a registered trademarked product of the National Committee for Quality Assurance									
HEDIS Measure	Colorado Access	CHPR	Kaiser	RMHMO	United	PCPP	FFS	Total HMOs	Total Colorado
<b>Childhood Immunizations</b>									
Percent of children receiving immunizations by 2 years old									
4 Diphtheria, Tetanus, Pertussis (DTP)	59.12% **	52.17% **	81.36% ***	76.67% ***	NA	61.80% ***	31.87% *	65.23% ***	56.92%
1 Measles, Mumps, Rubella (MMR)	78.83% ***	70.43% **	96.61% ***	84.62% ***	NA	72.26% **	49.39% *	80.86% ***	71.81%
3 Polio Virus immunizations (OPV or IPV)	74.94% ***	57.39% **	94.92% ***	82.05% ***	NA	67.15% **	36.98% *	75.15% ***	64.73%
2 Flu shots (Hib)	70.07% ***	36.52% *	100.00% ***	74.87% ***	NA	61.56% **	36.74% *	68.44% ***	59.73%
3 Hepatitis B immunizations (Hep B)	54.01% **	37.39% *	79.66% ***	75.13% ***	NA	60.58% ***	29.93% *	60.62% ***	53.68%
1 Chicken Pox vaccines (VZV)	51.58% ***	39.13% **	89.83% ***	45.64% **	NA	42.09% **	33.58% *	49.80% ***	44.40%
Combo 1 Rate -- 4 DTP or DTaP, 3 OPV or IPV, 1 MMR, 3 hepatitis B, and 2 Hib	39.66% **	20.00% *	72.88% ***	55.38% ***	NA	41.85% **	20.92% *	44.59% ***	38.63%
Combo 2 Rate -- 4 DTP or DTaP, 3 OPV or IPV, 1 MMR, 3 hepatitis B, 2 Hib, and VZV	24.82% **	13.04% *	66.10% ***	31.54% ***	NA	27.25% **	14.84% *	27.96% ***	24.84%
<b>Adolescent Immunizations</b>									
Percent of adolescents who received immunizations by 13 years old									
2 Measles, Mumps, Rubella	70.07% ***	40.32% *	81.82% ***	75.70% ***	NA	54.01% **	29.68% *	70.18% ***	55.80%
3 Hepatitis B immunizations	50.12% **	37.10% **	72.73% ***	78.88% ***	NA	39.66% *	21.41% *	59.77% ***	44.94%
1 Chicken Pox vaccines	13.87% **	4.84% *	80.30% ***	29.08% ***	NA	13.87% **	6.57% *	23.31% ***	16.67%
Combo 1 -- MMR and Hepatitis B	47.45% ***	27.42% *	66.67% ***	70.52% ***	NA	36.01% *	18.25% *	54.39% ***	40.56%
Combo 2 - MMR, Hepatitis B, and VZV	9.98% **	1.61% *	60.61% ***	27.09% ***	NA	7.79% *	4.14% *	18.80% ***	12.28%
<b>Comprehensive Diabetes</b>									
HbA1c Testing	79.32% ***	46.41% *	79.07% ***	75.67% ***	NA	59.85% **	7.79% *	72.94% ***	55.48%
Poorly Controlled HbA1c	10.95% ***	66.01% *	62.79% *	11.68% ***	NA	14.36% **	0.97% ***	21.86% *	15.53%
Eye Exam	44.28% ***	37.25% **	39.53% **	55.23% ***	NA	26.52% *	4.87% *	47.35% ***	33.22%
Lipid Profile	52.31% ***	37.25% **	58.14% ***	58.39% ***	NA	38.93% **	6.08% *	52.84% ***	39.31%
Lipid Control	18.73% **	29.41% ***	58.14% ***	34.79% ***	NA	22.63% **	4.38% *	28.43% ***	21.77%
Monitoring for Diabetic Nephropathy	44.04% ***	25.49% **	53.49% ***	40.63% ***	NA	18.49% *	5.60% *	40.20% ***	27.63%

2000 HEDIS (Reporting Year 1999) -- Colorado Medicaid (continued)									
HEDIS Measure	Colorado Access	CHPR	Kaiser	RMHMO	United	PCPP	FFS	Total HMOs	Total Colorado
<b>Adult Access to Preventive/Ambulatory Health Services</b>									
Total*	74.34%	62.46%	88.47%	80.13%	72.22%	65.33%	18.31%	75.40%	43.23%
Ages 20-44	73.76%	61.88%	85.62%	76.80%	73.81%	75.65%	31.08%	73.35%	57.96%
Ages 45-64	83.87%	63.32%	92.13%	82.50%	NA	76.82%	20.62%	73.81%	54.25%
Ages 65+	60.23%	62.75%	90.07%	81.49%	NA	41.86%	12.41%	73.81%	26.26%
<b>Children's Access to PCPs</b>									
Total*	67.96%	72.98%	85.41%	82.88%	65.85%	75.42%	58.59%	72.75%	69.62%
12-24 months	81.80%	83.83%	89.51%	93.38%	85.51%	88.05%	80.14%	85.91%	84.71%
25 months -6 yrs.	55.80%	74.08%	82.51%	78.17%	57.14%	73.22%	50.82%	63.58%	62.83%
7-11 yrs.	84.70%	63.80%	89.08%	83.91%	NA	74.97%	63.84%	83.42%	76.79%
<b>Inpatient Utilization -- Acute Care</b> Number of Visits and Days per 1,000 Member Months plus Average Length of Stay									
Discharges	9.2	11.1	8.8	8.9	11.3	8.8	9.4	9.5	9.3
Days	32.1	33.0	NR	29.1	26.4	43.2	48.0	29.7	40.0
ALOS	3.48	2.99	NR	3.29	2.34	4.91	5.11	3.14	4.32
<b>Outpatient Visits</b> Number of Outpatient Visits per 1,000 Member Months									
	229.90	238.38	261.60	321.99	157.43	296.85	109.88	251.61	205.16
<b>Emergency Room Visits</b> Number of Emergency Room Visits per 1,000 Member Months									
	42.41	55.34	26.28	38.76	41.85	41.89	23.62	42.54	34.82

The rates above are the actual audited HEDIS rates.  
 NR -- Not reported due to insufficient numbers, questions arising in independent audit, or inapplicability of measure.  
 NA -- Not applicable due to insufficient numbers.  
 \* -- These total rates are not standard HEDIS measures, but aggregations of the separate age groups.

Key to Interpreting Statistical Significance Differences:

***	**	*
Above Average	Average	Below Average

## Overview

The Health Plan Employer Data & Information Set (HEDIS) is a set of standardized performance measures designed to ensure that purchasers and consumers have the information they need to reliably compare the performance of managed health care plans. It is sponsored, supported and maintained by the National Committee for Quality Assurance (NCQA)—an organization that evaluates and publicly reports on the quality of managed care plans. HEDIS measures were designed to help purchasers and consumers evaluate the quality of different health plans' performance along a variety of dimensions.

The Colorado Department of Health Care Policy and Financing's goals in utilizing HEDIS is to evaluate the quality of care provided Medicaid clients, encourage improvement based on results, and provide clients information necessary to make educated managed care choices. The five contracted Medicaid HMO's in Colorado are required to calculate and submit to the Department identified HEDIS measures for their Medicaid populations. The Department contracted with First Peer Review of Colorado (FPRC) to calculate and submit identified HEDIS performance measures for the Primary Care Physician Program (PCPP) and the Unassigned Fee-For-Service Program (FFS) specified by the Department. This report is a summary of those calculations.

### **HEDIS 2000 reports care delivered in 1999 and contains 62 measures organized in six general areas, or domains:**

**Effectiveness of Care:** The measures in this domain were developed to track the percentage of members who receive the recommended preventive services, routine screenings and aftercare.

**Access/Availability of Care:** This set of measures tracks how many members access health care during the year.

**Health Plan Stability:** The measures in this domain track member disenrollment and provider turnover rates, which may be an indication of satisfaction.

**Use of Services:** These measures provide a profile of resource expenditures, including rates of hospitalization, average lengths of stay, frequency of certain procedures, births and well care visits.

**Cost of Care:** This domain measures the trend of premium rates and the cost of certain DRGs.

**Health Plan Descriptive Information:** This domain includes information about the qualifications of providers, the compensation to providers, various types of information about enrollment and the plan's relationship with external agencies which may provide assistance to the members.

Health plans were required by the Department to submit the following audited measures:

**Effectiveness of Care:**

- Childhood Immunization
- Adolescent Immunization
- Comprehensive Diabetes Care
- Use of Appropriate Medications for People with Asthma

**Access/Availability of Care:**

- Adults' Access to Preventive/Ambulatory Care
- Children's Access to Primary Care Providers

**Use of Services:**

- Ambulatory Care – ER and Outpatient Visits
- Inpatient Utilization – Total Inpatient only

**Health Plan Descriptive Information:**

- Arrangements with Public Health, Educational, and Social Service Organizations (this measure calculated by HMOs only)

For some HEDIS measures, health plans have a choice of methodological approaches.

**The Administrative Method:** Utilizing this methodology, the eligible population (i.e., members who satisfy all of the denominator criteria for a measure) is calculated from eligibility and/or enrollment databases. The positive numerator events are accessed from the paid claims database or, in the case of HMO's, possibly an encounter database. The rate is calculated using *all* of the eligible population. Depending on the health plan, most measures selected by the Department for calculation of HEDIS 2000 were calculated by the administrative method.

**The Hybrid Method:** Some measures are appropriate for calculation by hybrid methodology. With the hybrid method, a random sample of 411 members of the eligible population is selected and medical record review is conducted on the records of those members whose claims data show a negative administrative result for the measure. The medical records are reviewed to potentially augment the claims data with evidence the service in question was actually received, but not documented in the administrative claims or encounter database.

## Understanding Summary Tables

A summary table is included for each measure that plans may have chosen to evaluate with the hybrid methodology. Summary tables include the observed rate for each health plan, total Colorado Medicaid HMOs, and total Colorado Medicaid for each of the components of a measure. Below the observed rate is an indicator of statistically significant difference from the total Colorado Medicaid rate.

### Summary Table Name

HEDIS Measure	Plan A	Plan B	Plan C	Total HMOs	Total Colorado
<b>Measure Name</b>	<b>Brief Measure Description</b>				
Component 1	70.07% ***	40.32% *	81.82% ***	70.18% ***	55.80%
Component 2	50.12% **	37.10% **	72.73% ***	59.77% ***	44.94%
<b>National 1999 HMO Component 3 Rate</b>	<b>32%</b>				
Component 3	13.87% **	4.84% *	80.30% ***	23.31% ***	16.67%
Component 4	47.45% ***	27.42% *	66.67% ***	54.39% ***	40.56%

**Reported rate** is the arithmetical mean of the administrative or hybrid care identified. This reflects a point estimate rather than a certain or "true" average.

**National 1999 HMO Rate** are national averages developed from managed care organizations submitting results to the National Committee for Quality Assurance. The national rates exist for a small number of measures. The national benchmark is placed in a shaded row directly above the component for which the rate exists with the number being reported in the second column of the table.

### Statistical Differences:

- \* Indicates the health plan is below the Colorado Medicaid average
- \*\* Indicates the health plan is at the Colorado Medicaid average
- \*\*\* Indicates the health plan is above the Colorado Medicaid average



## Understanding Results Tables

A table similar to the table below is provided for the individual components of each measure that plans may have chosen to evaluate with the hybrid methodology. Tables for measures that were evaluated using strictly the administrative method include only the observed rates for each reported age group. The components of the tables are described below.

Table Name					
Health Plan	Reported Rate	Lower Bound	Upper Bound	Rank	Statistical Difference
Plan A	81.6%	78.8%	84.4%	3	*
Plan B	91.7%	89.4%	94.0%	1	***
Plan C	86.8%	84.3%	89.3%	2	**
Total Colorado Medicaid HMOs	86.7%	84.2%	89.2%		**
Total Colorado Medicaid	85.1%	82.6%	87.6%		

**Reported rate** is the arithmetical mean of the administrative or hybrid care identified. This reflects a point estimate rather than a certain or "true" average.

**Lower Bound** is the lowest portion of the 95% confidence interval.

**Upper Bound** is the highest portion of the 95% confidence interval.

The lower and upper bounds correspond with the bottom and top (respectively) of the vertical bars in the confidence interval charts.

**95% Confidence Interval** is the range within which we can say with 95% certainty that the true average or percent lies.

**Rank** reflects the numeric ranking from the highest average score (1) to the lowest average score (6 or 7 depending on the number of plans included in the measure). Ranks include only individual health plans, not the total HMO rate. Ranks *do not* reflect statistically significant differences.

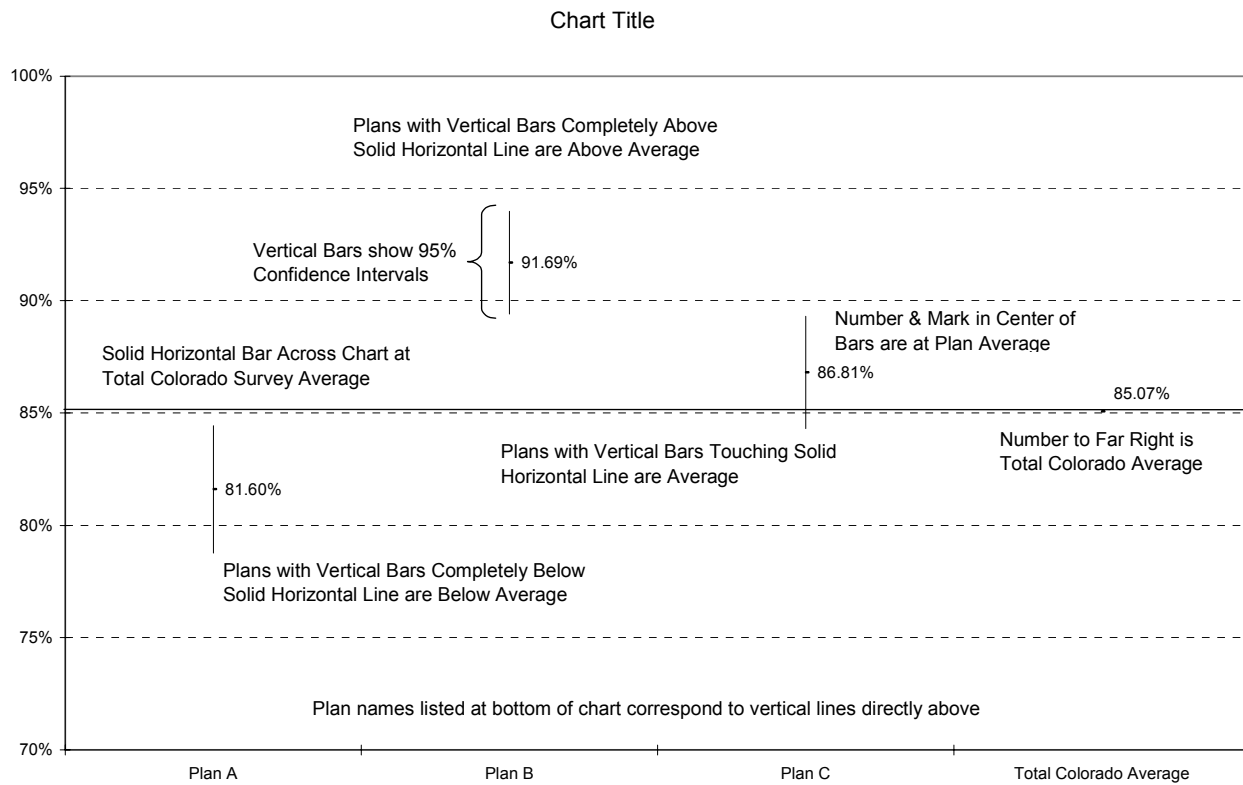
### Statistical Differences:

- \* Indicates the health plan is below the Colorado Medicaid average
- \*\* Indicates the health plan is at the Colorado Medicaid average
- \*\*\* Indicates the health plan is above the Colorado Medicaid average

## Understanding Confidence Interval Charts

A confidence interval chart similar to that below is provided for the individual components of each measure that plans may have chosen to evaluate with the hybrid methodology. This chart describes the elements included in the confidence interval charts.

As noted in the preceding section, the confidence interval is the range within which we can state with 95% certainty that the true plan average or rate lies.



## I. Childhood Immunization Status

The Childhood Immunization measure calculates the number of children who turned two years old during 1999, who were continuously enrolled for 12 months immediately preceding their second birthday, and who have received the following immunizations:

- Four DPT (Diphtheria/Tetanus/Pertussis) or DtaP vaccinations (or an initial DTP or DtaP followed by at least three DTP, DtaP and/or DT) by the second birthday
- Three polio (injectable or oral) vaccinations on or before the member's second birthday
- One MMR (Measles/Mumps/Rubella) between the first and second birthday
- Two H influenza type b (Hib) vaccinations before the child's second birthday with one following on or between the first and second birthday
- Three hepatitis B (Hep B) by the second birthday (with one falling between the sixth month and second birthday)
- One Varicella (VZV) vaccination (chicken pox vaccination) on or between the child's first and second birthday

The total Colorado Medicaid rate of 25% for combination two and the total HMO rate of 28% are both well below the national 1999 (1998 reporting year) HMO Medicaid benchmark of 53%. Combination two requires that all of the immunizations be obtained by individuals on the proper schedule. This aspect in conjunction with the relatively low Varicella vaccination rate contributes to Colorado's low combination two rate. Immunization rates for all Colorado Medicaid health plans were highest for the individual components of Measles/Mumps/Rubella (72%) and Polio (65%).

Of the individual health plans, Kaiser Permanente returned the highest rating on each of the eight childhood immunization components. Rocky Mountain HMO achieved the second highest rating on seven of the eight components. Colorado Access and the Primary Care Physician Program both had generally solid rates near the center of the spectrum. The Unassigned Fee-for-Service and Community Health Plan of the Rockies consistently exhibited the two lowest ranks. The Unassigned Fee-for-Service was rated last on five of the components and Community Health Plan of the Rockies was rated last on the remaining three components.

# Childhood Immunization Summary 2000 HEDIS (1999 Reporting Year) Colorado Medicaid

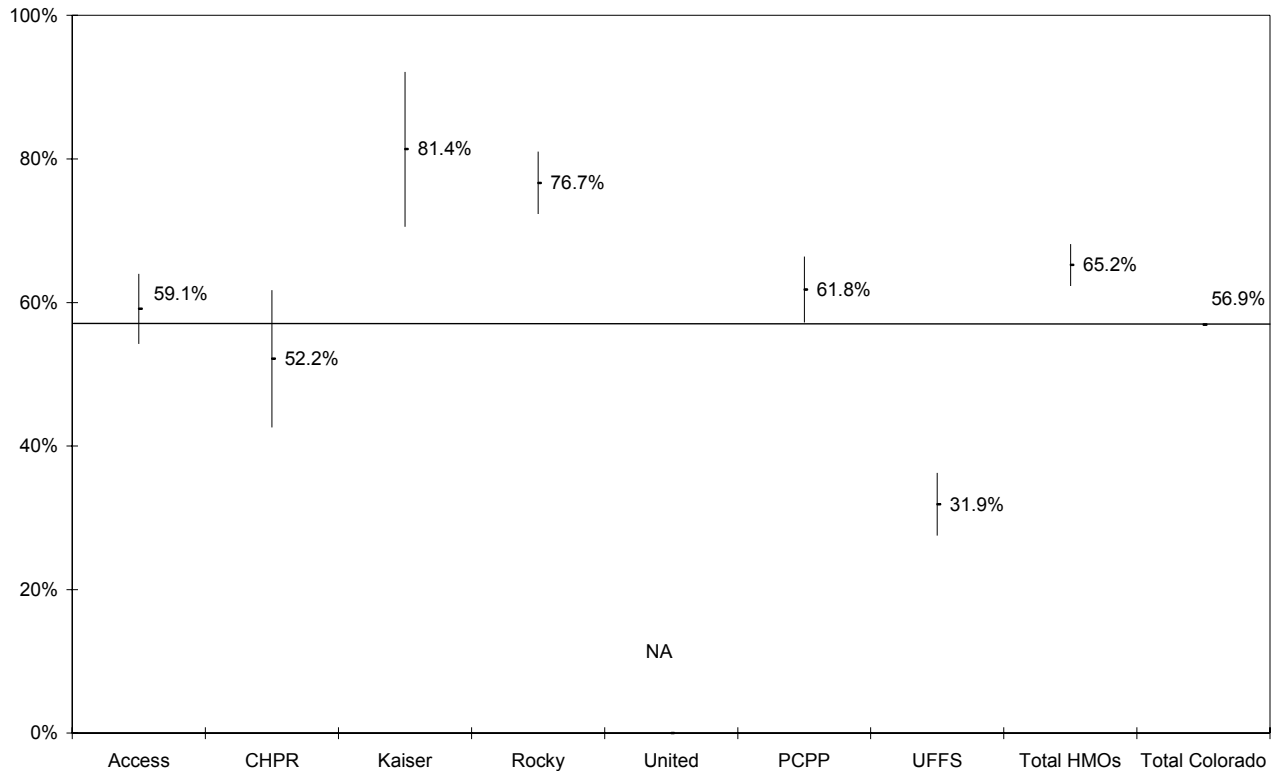
HEDIS Measure	Colorado Access	CHPR	Kaiser	RMHMO	United	PCPP	FFS	Total HMOs	Total Colorado
<b>Childhood Immunizations</b>	Percent of children receiving immunizations by 2 years old								
4 Diphtheria, Tetanus, Pertussis (DTP)	59.12% **	52.17% **	81.36% ***	76.67% ***	NA	61.80% ***	31.87% *	65.23% ***	56.92%
1 Measles, Mumps, Rubella (MMR)	78.83% ***	70.43% **	96.61% ***	84.62% ***	NA	72.26% **	49.39% *	80.86% ***	71.81%
3 Polio Virus immunizations (OPV or IPV)	74.94% ***	57.39% **	94.92% ***	82.05% ***	NA	67.15% **	36.98% *	75.15% ***	64.73%
2 Flu shots (Hib)	70.07% ***	36.52% *	100.00% ***	74.87% ***	NA	61.56% **	36.74% *	68.44% ***	59.73%
3 Hepatitis B immunizations (Hep B)	54.01% **	37.39% *	79.66% ***	75.13% ***	NA	60.58% ***	29.93% *	60.62% ***	53.68%
1 Chicken Pox vaccines (VZV)	51.58% ***	39.13% **	89.83% ***	45.64% **	NA	42.09% **	33.58% *	49.80% ***	44.40%
Combo 1 Rate -- 4 DTP or DTaP, 3 OPV or IPV, 1 MMR, 3 hepatitis B, and 2 Hib	39.66% **	20.00% *	72.88% ***	55.38% ***	NA	41.85% **	20.92% *	44.59% ***	38.63%
National 1999 HMO Combo 2 Rate:	53%								
Combo 2 Rate -- 4 DTP or DTaP, 3 OPV or IPV, 1 MMR, 3 hepatitis B, 2 Hib, and VZV	24.82% **	13.04% *	66.10% ***	31.54% ***	NA	27.25% **	14.84% *	27.96% ***	24.84%

NA – Not Applicable

**Childhood Immunizations:  
Four DPT (Diphtheria/Tetanus/Pertussis) or DtaP vaccinations (or an initial DTP or DtaP  
followed by at least three DTP, DtaP and/or DT) by the second birthday  
2000 HEDIS (Reporting Year 1999) Colorado Medicaid**

	<b>Reported Rate</b>	<b>Lower Bound</b>	<b>Upper Bound</b>	<b>Rank</b>	<b>Statistical Difference</b>
Access	59.12%	54.25%	64.00%	4	**
CHPR	52.17%	42.61%	61.74%	5	**
Kaiser	81.36%	70.57%	92.14%	1	***
Rocky	76.67%	72.34%	80.99%	2	***
United	NA				
PCPP	61.80%	57.22%	66.38%	3	***
UFFS	31.87%	27.49%	36.26%	6	*
Total HMOs	65.23%	62.33%	68.14%		***
Total Colorado	56.92%	54.68%	59.17%		

**Childhood Immunizations -- DTP**

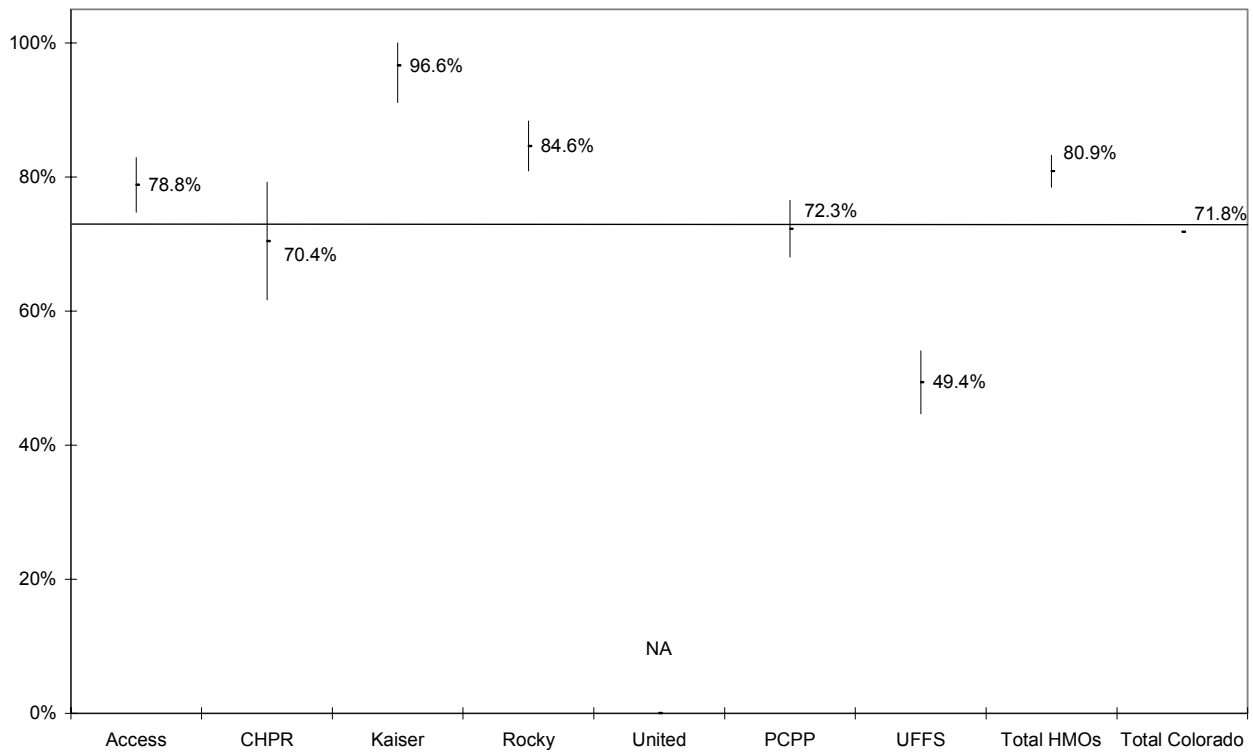


NA – Not Applicable

**Childhood Immunizations:**  
**One MMR (Measles/Mumps/Rubella) between the first and second birthday**  
**2000 HEDIS (Reporting Year 1999) Colorado Medicaid**

	Reported Rate	Lower Bound	Upper Bound	Rank	Statistical Difference
Access	78.83%	74.76%	82.90%	3	***
CHPR	70.43%	61.66%	79.21%	5	**
Kaiser	96.61%	91.14%	100.00%	1	***
Rocky	84.62%	80.91%	88.32%	2	***
United	NA				
PCPP	72.26%	68.06%	76.47%	4	**
UFFS	49.39%	44.68%	54.10%	6	*
Total HMOs	80.86%	78.47%	83.25%		***
Total Colorado	71.81%	69.77%	73.85%		

**Childhood Immunizations -- MMR**

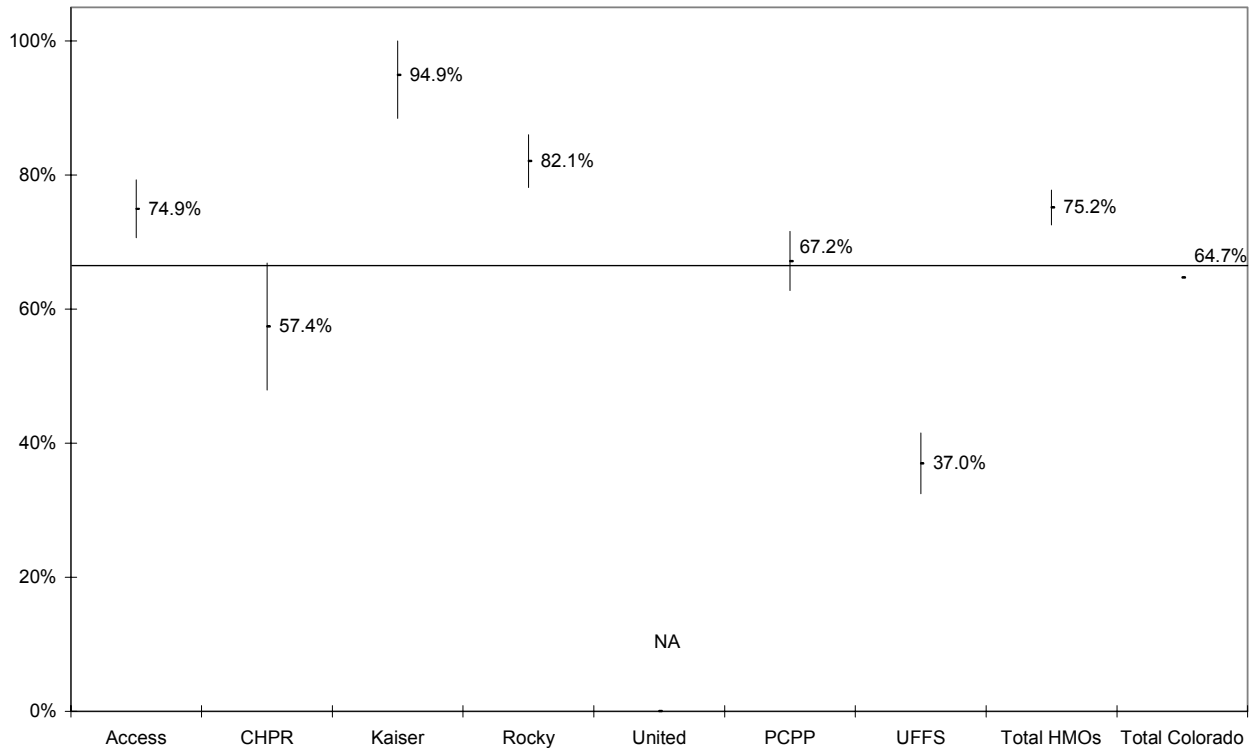


NA – Not Applicable

**Childhood Immunizations:  
Three polio (injectable or oral) vaccinations on or before the members second birthday  
2000 HEDIS (Reporting Year 1999) Colorado Medicaid**

	<b>Reported Rate</b>	<b>Lower Bound</b>	<b>Upper Bound</b>	<b>Rank</b>	<b>Statistical Difference</b>
Access	74.94%	70.63%	79.25%	3	***
CHPR	57.39%	47.92%	66.86%	5	**
Kaiser	94.92%	88.46%	100.00%	1	***
Rocky	82.05%	78.11%	85.99%	2	***
United	NA				
PCPP	67.15%	62.73%	71.57%	4	**
UFFS	36.98%	32.44%	41.53%	6	*
Total HMOs	75.15%	72.52%	77.78%		***
Total Colorado	64.73%	62.56%	66.89%		

**Childhood Immunizations -- OPV**

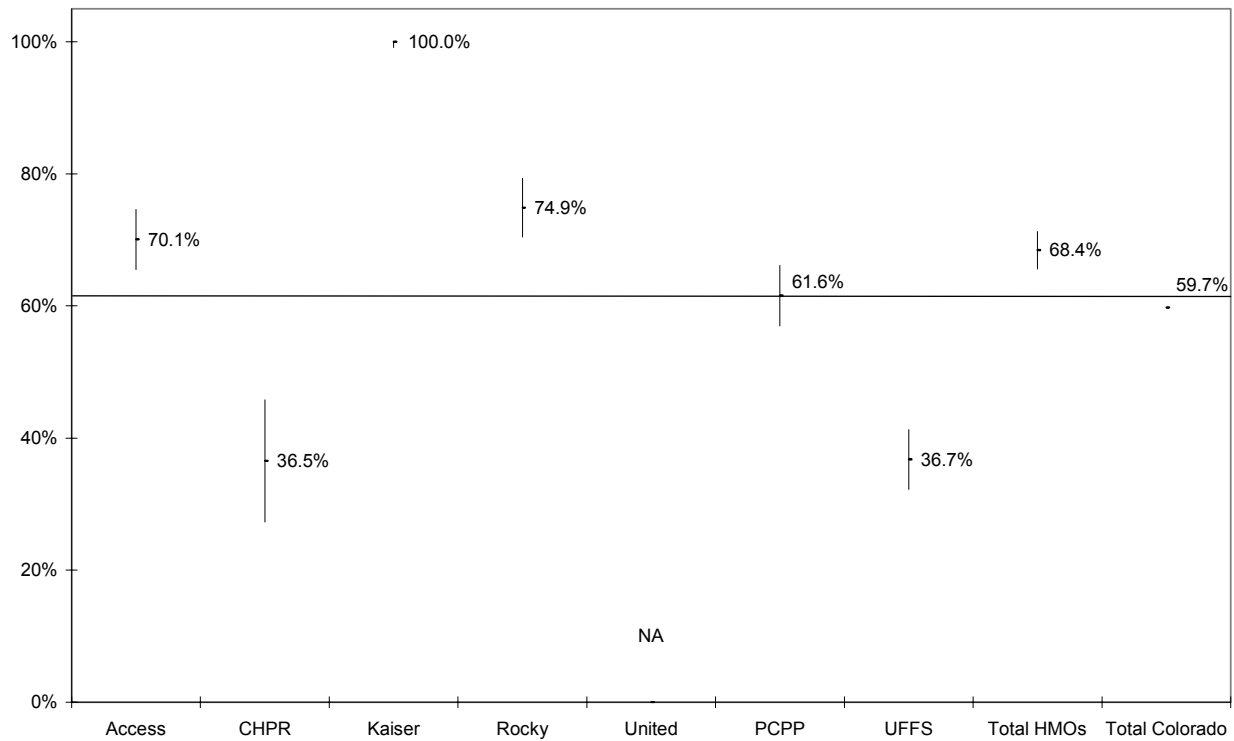


NA – Not Applicable

**Childhood Immunizations:**  
**Two H influenza type b (Hib) vaccination before the child's second birthday with one following on**  
**or between the first and second birthday**  
**2000 HEDIS (Reporting Year 1999) Colorado Medicaid**

	Reported Rate	Lower Bound	Upper Bound	Rank	Statistical Difference
Access	70.07%	65.52%	74.62%	3	***
CHPR	36.52%	27.29%	45.76%	6	*
Kaiser	100.00%	99.15%	100.00%	1	***
Rocky	74.87%	70.44%	79.30%	2	***
United	NA				
PCPP	61.56%	56.98%	66.14%	4	**
UFFS	36.74%	32.20%	41.28%	5	*
Total HMOs	68.44%	65.60%	71.27%		***
Total Colorado	59.73%	57.50%	61.95%		

**Childhood Immunizations -- HIB**



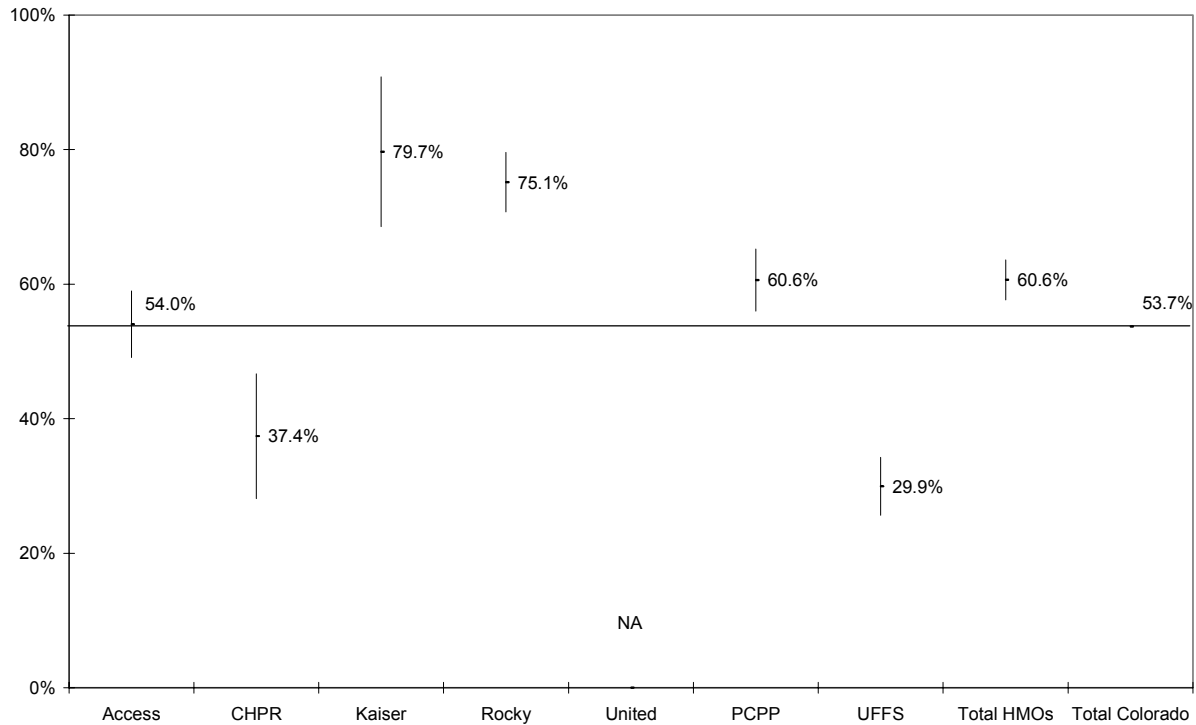
NA – Not Applicable



**Childhood Immunizations:  
Three hepatitis B (Hep B) by the second birthday  
(with one falling between the sixth month and second birthday)  
2000 HEDIS (Reporting Year 1999) Colorado Medicaid**

	Reported Rate	Lower Bound	Upper Bound	Rank	Statistical Difference
Access	54.01%	49.07%	58.95%	4	**
CHPR	37.39%	28.11%	46.67%	5	*
Kaiser	79.66%	68.54%	90.78%	1	***
Rocky	75.13%	70.71%	79.55%	2	***
United	NA				
PCPP	60.58%	55.98%	65.19%	3	***
UFFS	29.93%	25.62%	34.23%	6	*
Total HMOs	60.62%	57.64%	63.60%		***
Total Colorado	53.68%	51.42%	55.94%		

**Childhood Immunizations -- Hepatitis B**

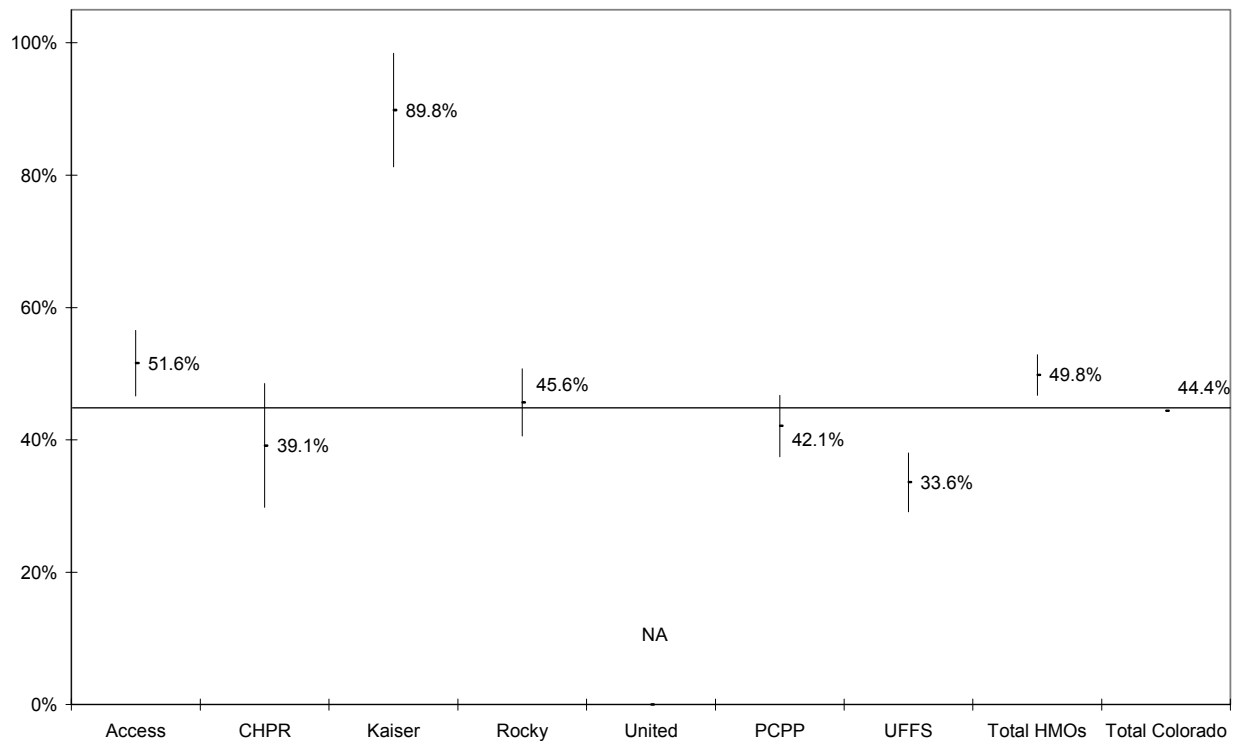


NA – Not Applicable

**Childhood Immunizations:  
One Varicella (VZV) vaccination on or between the child's first and second birthday  
2000 HEDIS (Reporting Year 1999) Colorado Medicaid**

	<b>Reported Rate</b>	<b>Lower Bound</b>	<b>Upper Bound</b>	<b>Rank</b>	<b>Statistical Difference</b>
Access	51.58%	46.63%	56.53%	2	***
CHPR	39.13%	29.78%	48.49%	5	**
Kaiser	89.83%	81.27%	98.39%	1	***
Rocky	45.64%	40.57%	50.71%	3	**
United	NA				
PCPP	42.09%	37.44%	46.74%	4	**
UFFS	33.58%	29.13%	38.02%	6	*
Total HMOs	49.80%	46.75%	52.85%		***
Total Colorado	44.40%	42.14%	46.65%		

**Childhood Immunizations -- VZV**

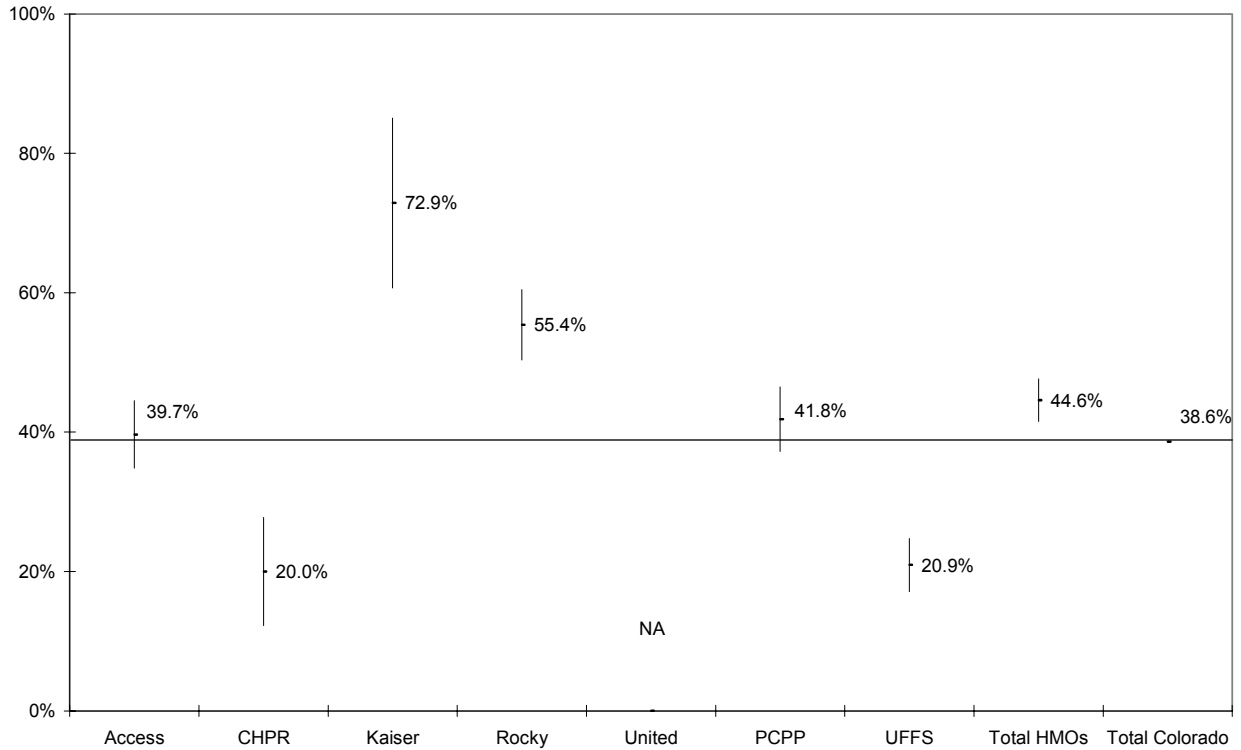


NA – Not Applicable

**Childhood Immunizations:  
Combination 1: Four DTP, Three OPV or IPV, One MMR and  
Three hepatitis B vaccinations and Two HIB  
2000 HEDIS (Reporting Year 1999) Colorado Medicaid**

	<b>Reported Rate</b>	<b>Lower Bound</b>	<b>Upper Bound</b>	<b>Rank</b>	<b>Statistical Difference</b>
Access	39.66%	34.81%	44.51%	4	**
CHPR	20.00%	12.25%	27.75%	6	*
Kaiser	72.88%	60.69%	85.07%	1	***
Rocky	55.38%	50.32%	60.45%	2	***
United	NA				
PCPP	41.85%	37.20%	46.50%	3	**
UFFS	20.92%	17.11%	24.74%	5	*
Total HMOs	44.59%	41.56%	47.62%		***
Total Colorado	38.63%	36.42%	40.84%		

**Childhood Immunizations -- Combo 1**

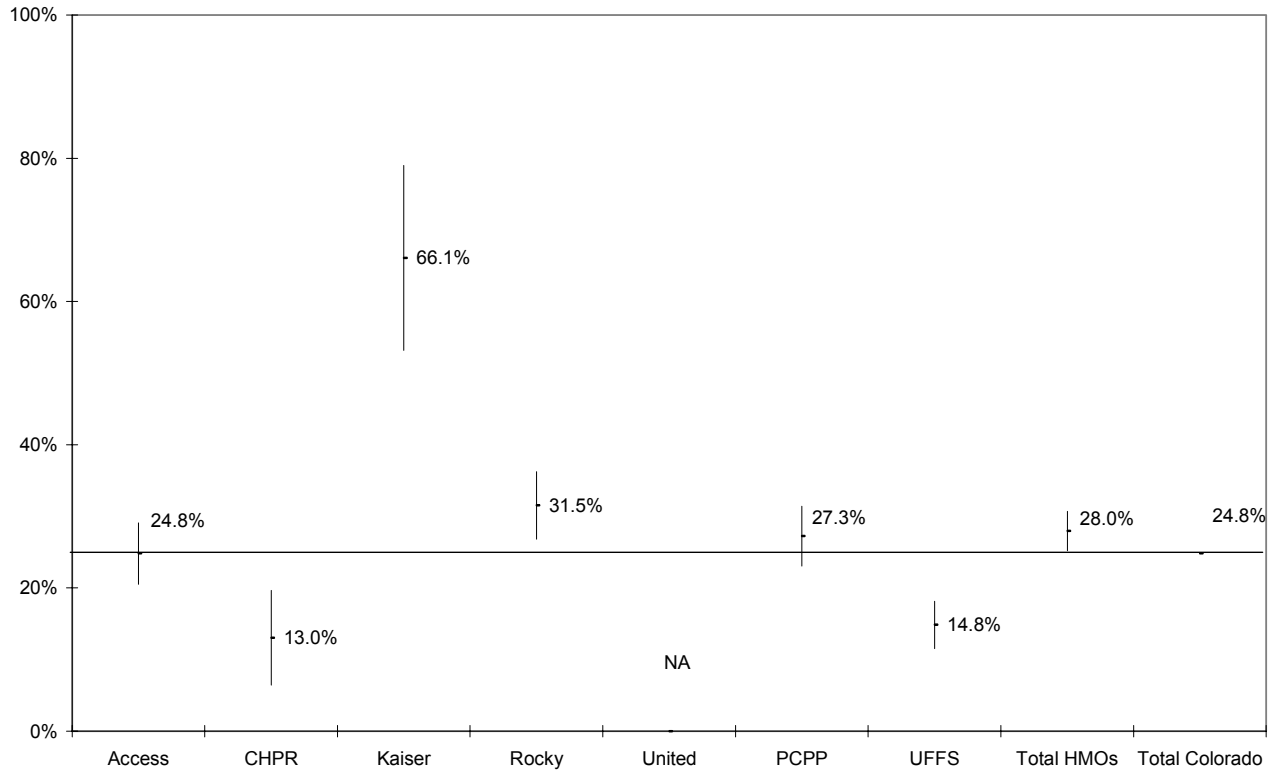


NA – Not Applicable

**Childhood Immunizations:  
Combination 2: All Immunizations  
2000 HEDIS (Reporting Year 1999) Colorado Medicaid**

	Reported Rate	Lower Bound	Upper Bound	Rank	Statistical Difference
Access	24.82%	20.52%	29.12%	4	**
CHPR	13.04%	6.45%	19.63%	6	*
Kaiser	66.10%	53.18%	79.03%	1	***
Rocky	31.54%	26.80%	36.28%	2	***
United	NA				
PCPP	27.25%	23.07%	31.43%	3	**
UFFS	14.84%	11.53%	18.16%	5	*
Total HMOs	27.96%	25.22%	30.69%		***
Total Colorado	24.84%	22.88%	26.79%		
National HMO '99	53.00%				

**Childhood Immunizations -- Combo 2**



NA – Not Applicable

## II. Adolescent Immunization Status

The Adolescent Immunization measure calculates the number of adolescents whose 13th birthday was in 1999, who were continuously enrolled for 12 months immediately preceding their 13th birthday, and who received:

- A second dose of MMR by age 13 or a seropositive test result for measles, mumps and/or rubella
- Three hepatitis B vaccinations or a seropositive test result for hepatitis B
- One VZV, a seropositive test result for VZV or evidence of the chicken pox by age 13.

Overall rates are lower for adolescent immunizations than for childhood immunizations. Measles/Mumps/Rubella, Hepatitis B, and the combination of both (combination 1) have the highest ratings, 56%, 45%, and 41% respectively. Varicella and combination two, which includes the chicken pox vaccine, have substantially lower overall scores, 17% and 12% respectively.

When compared with the 1999 national HMO Medicaid benchmark for receiving a second Measles/Mumps/Rubella vaccine, the total Colorado Medicaid rate exceeds the benchmark 56% to 48%. The total Colorado HMO rate of 70% far exceeds the national average.

Adolescent immunization trends for individual health plans reflect those exhibited by childhood immunization trends. Kaiser Permanente and Rocky Mountain HMO exhibit the strongest results while the Unassigned Fee-for-Service and Community Health Plan of the Rockies exhibit the weakest results. Once again Colorado Access and the Primary Care Physician Program have more central results, although Colorado Access tends to outperform the Primary Care Physician Program on the adolescent immunization components.

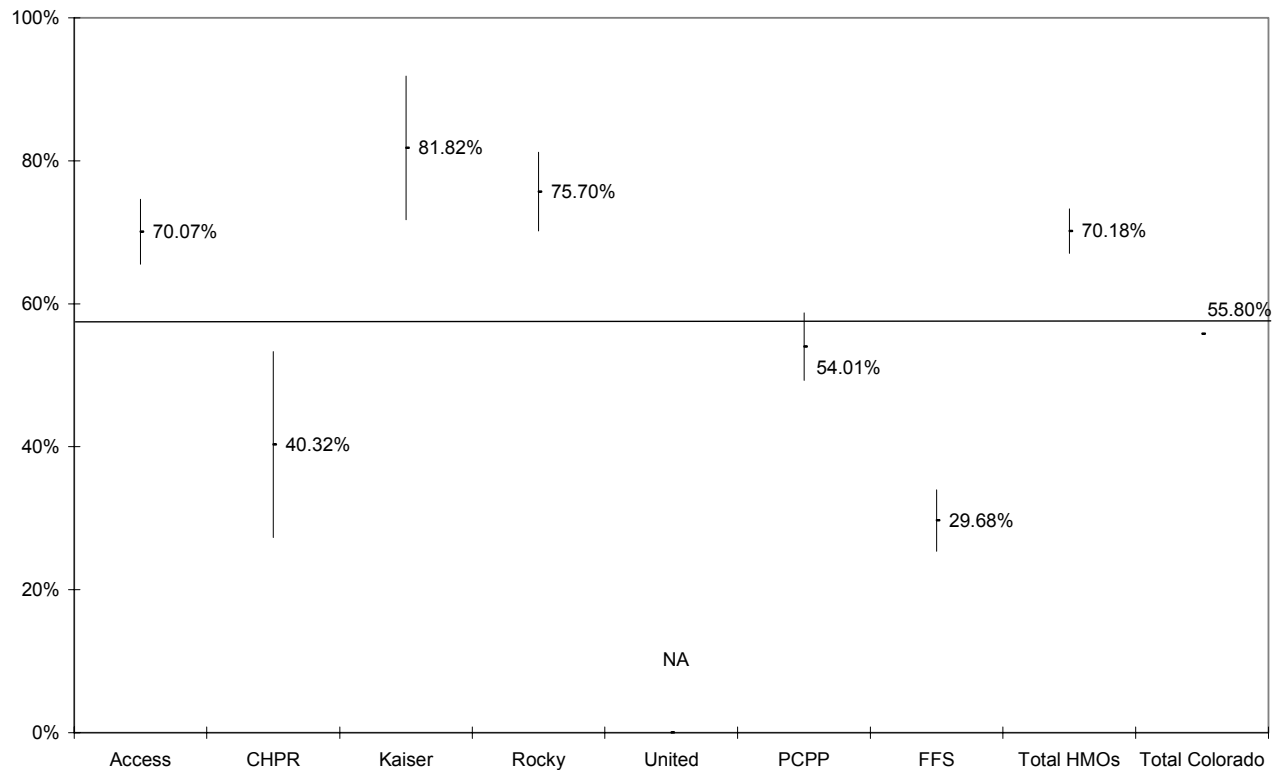
HEDIS Measure	Colorado Access	CHPR	Kaiser	RMHMO	United	PCPP	FFS	Total HMOs	Total Colorado
<b>Adolescent Immunizations</b>	Percent of adolescents who received immunizations by 13 years old								
National 1999 HMO MMR Rate:	48.00%								
2 Measles, Mumps, Rubella	70.07% ***	40.32% *	81.82% ***	75.70% ***	NA	54.01% **	29.68% *	70.18% ***	55.80%
3 Hepatitis B immunizations	50.12% **	37.10% **	72.73% ***	78.88% ***	NA	39.66% *	21.41% *	59.77% ***	44.94%
1 Chicken Pox vaccines	13.87% **	4.84% *	80.30% ***	29.08% ***	NA	13.87% **	6.57% *	23.31% ***	16.67%
Combo 1 -- MMR and Hepatitis B	47.45% ***	27.42% *	66.67% ***	70.52% ***	NA	36.01% *	18.25% *	54.39% ***	40.56%
Combo 2 - MMR, Hepatitis B, and VZV	9.98% **	1.61% *	60.61% ***	27.09% ***	NA	7.79% *	4.14% *	18.80% ***	12.28%

## Adolescent Immunization Summary

**Adolescent Immunizations:  
A second dose of MMR by age 13 or a seropositive test result for measles, mumps and/or rubella  
2000 HEDIS (Reporting Year 1999) Colorado Medicaid**

	<b>Reported Rate</b>	<b>Lower Bound</b>	<b>Upper Bound</b>	<b>Rank</b>	<b>Statistical Difference</b>
Access	70.07%	65.52%	74.62%	3	***
CHPR	40.32%	27.31%	53.34%	5	*
Kaiser	81.82%	71.76%	91.88%	1	***
Rocky	75.70%	70.19%	81.20%	2	***
United	NA				
PCPP	54.01%	49.32%	58.71%	4	**
UFFS	29.68%	25.39%	33.98%	6	*
Total HMOs	70.18%	67.06%	73.29%		***
Total Colorado	55.80%	53.41%	58.19%		
National HMO '99	48.00%				

**Adolescent Immunization -- MMR**

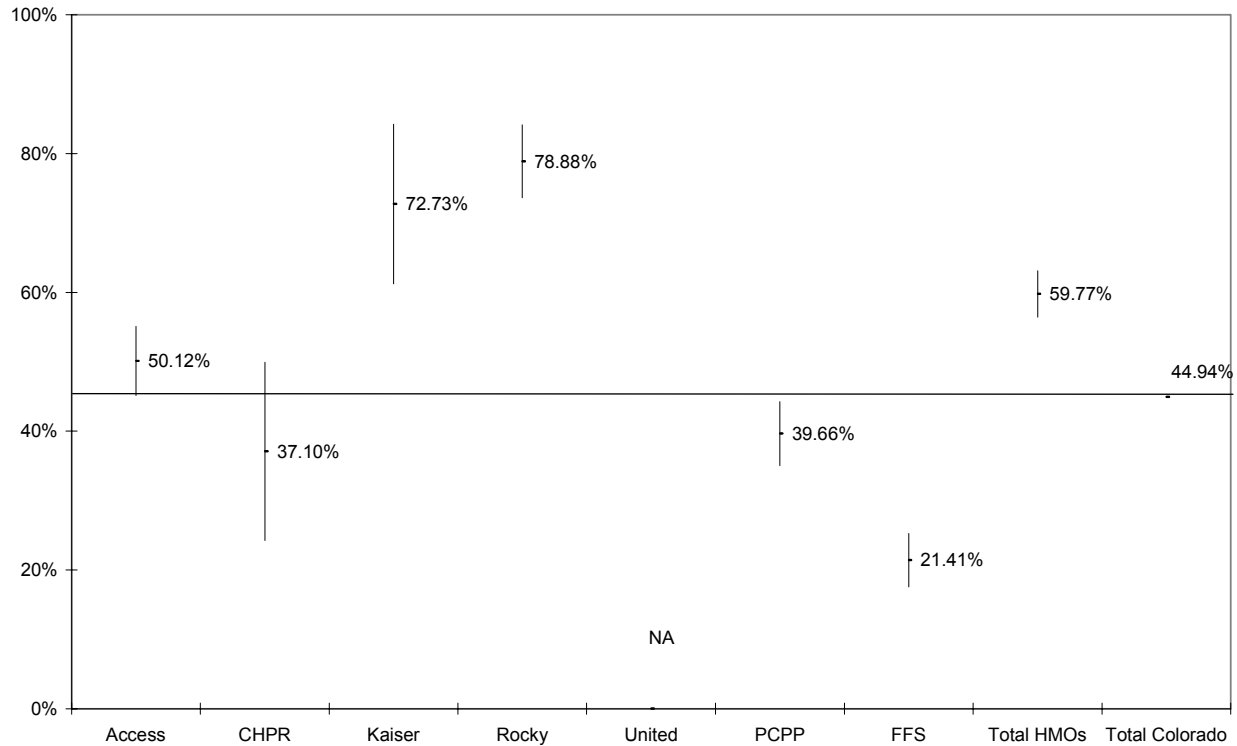


NA – Not Applicable

**Adolescent Immunizations:**  
**Three hepatitis B vaccinations or a seropositive test result for hepatitis B**  
**2000 HEDIS (Reporting Year 1999) Colorado Medicaid**

	<b>Reported Rate</b>	<b>Lower Bound</b>	<b>Upper Bound</b>	<b>Rank</b>	<b>Statistical Difference</b>
Access	50.12%	45.17%	55.08%	3	**
CHPR	37.10%	24.27%	49.93%	5	**
Kaiser	72.73%	61.22%	84.23%	2	***
Rocky	78.88%	73.64%	84.13%	1	***
United	NA				
PCPP	39.66%	35.05%	44.27%	4	*
UFFS	21.41%	17.57%	25.26%	6	*
Total HMOs	59.77%	56.43%	63.11%		***
Total Colorado	44.94%	42.55%	47.33%		

**Adolescent Immunization -- Hepatitis B**

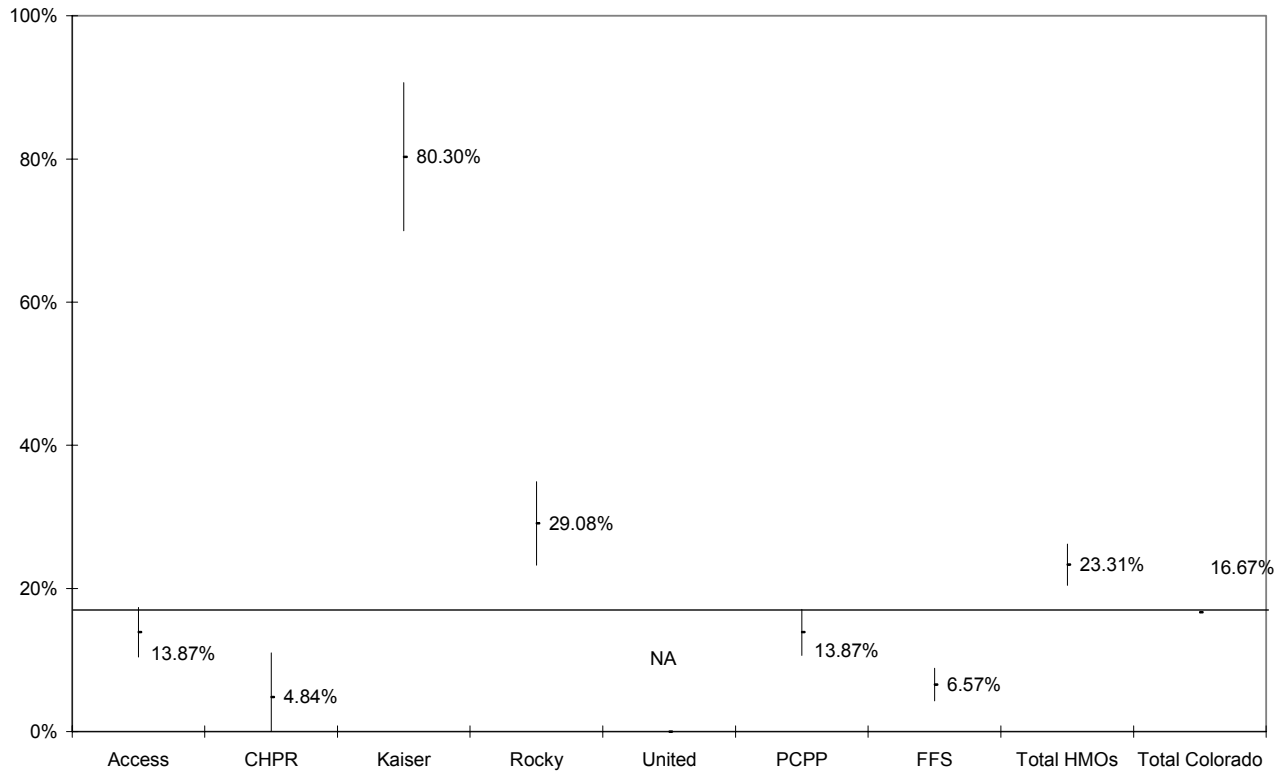


NA – Not Applicable

**Adolescent Immunizations:**  
**One VZV, a seropositive test result for VZV or evidence of the chicken pox by age 13**  
**2000 HEDIS (Reporting Year 1999) Colorado Medicaid**

	Reported Rate	Lower Bound	Upper Bound	Rank	Statistical Difference
Access	13.87%	10.41%	17.33%	3	**
CHPR	4.84%	0.00%	10.99%	6	*
Kaiser	80.30%	69.95%	90.66%	1	***
Rocky	29.08%	23.27%	34.90%	2	***
United	NA				
PCPP	13.87%	10.65%	17.09%	4	**
UFFS	6.57%	4.30%	8.84%	5	*
Total HMOs	23.31%	20.44%	26.18%		***
Total Colorado	16.67%	14.88%	18.45%		

**Adolescent Immunization -- VZV**



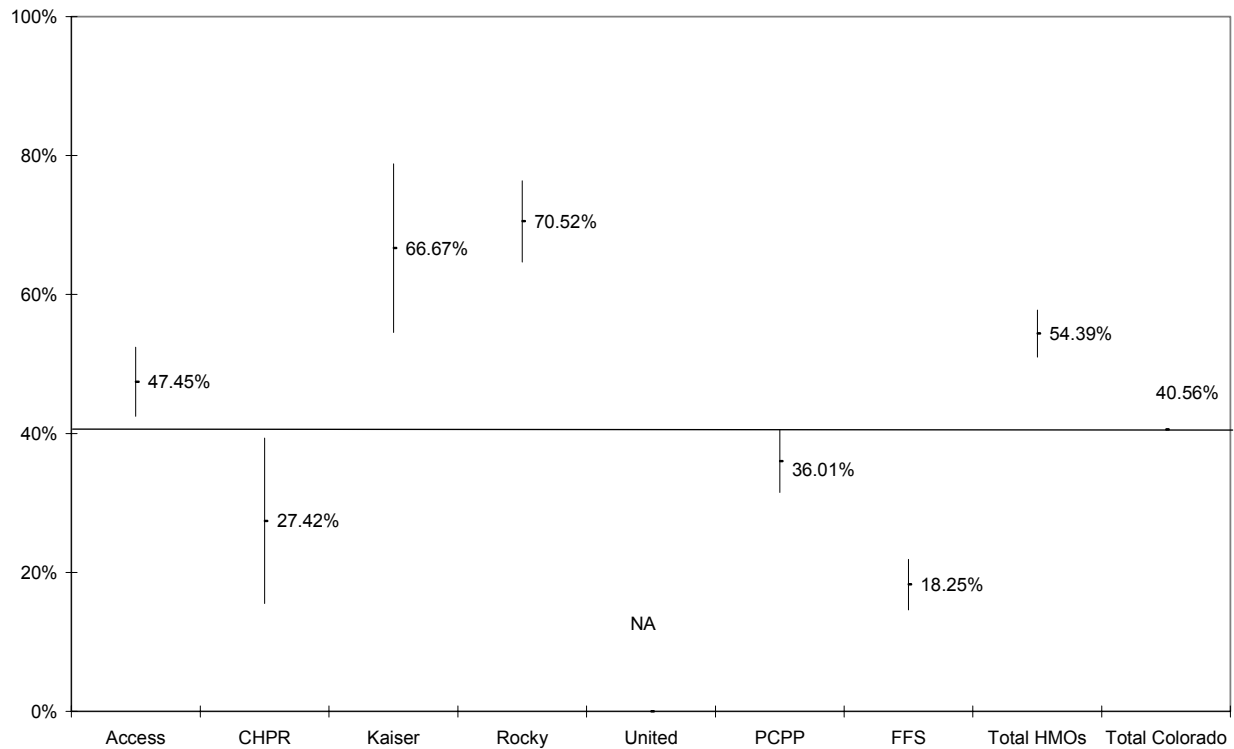
NA – Not Applicable



**Adolescent Immunizations:  
Combination 1: MMR and Hepatitis B  
2000 HEDIS (Reporting Year 1999) Colorado Medicaid**

	Reported Rate	Lower Bound	Upper Bound	Rank	Statistical Difference
Access	47.45%	42.50%	52.39%	3	***
CHPR	27.42%	15.51%	39.33%	5	*
Kaiser	66.67%	54.54%	78.80%	2	***
Rocky	70.52%	64.68%	76.36%	1	***
United	NA				
PCPP	36.01%	31.49%	40.53%	4	*
UFFS	18.25%	14.64%	21.86%	6	*
Total HMOs	54.39%	50.99%	57.78%		***
Total Colorado	40.56%	38.20%	42.92%		

**Adolescent Immunization -- Combo 1**

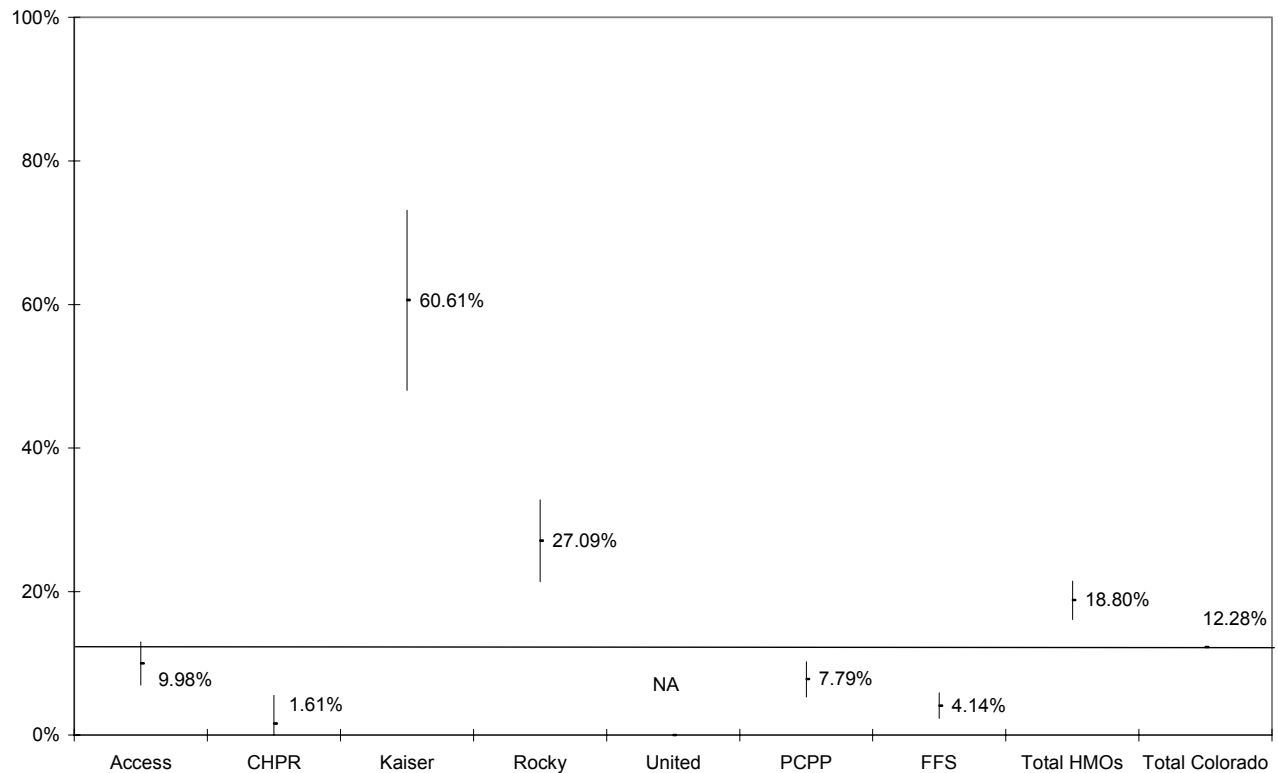


NA – Not Applicable

**Adolescent Immunizations:  
Combination 2: MMR, Hepatitis B, and VZV  
2000 HEDIS (Reporting Year 1999) Colorado Medicaid**

	Reported Rate	Lower Bound	Upper Bound	Rank	Statistical Difference
Access	9.98%	6.96%	12.99%	3	**
CHPR	1.61%	0.00%	5.56%	6	*
Kaiser	60.61%	48.06%	73.15%	1	***
Rocky	27.09%	21.39%	32.79%	2	***
United	NA				
PCPP	7.79%	5.32%	10.25%	4	*
UFFS	4.14%	2.33%	5.94%	5	*
Total HMOs	18.80%	16.15%	21.45%		***
Total Colorado	12.28%	10.72%	13.85%		

**Adolescent Immunization -- Combo 2**



NA – Not Applicable

### III. Comprehensive Diabetes Care

The Comprehensive Diabetes Care measure calculates the number of members with diabetes (Type I and Type II) age 18 years through 75 years old, who were continuously enrolled during 1999, and who had each of the following:

- Hemoglobin A1c (HbA1c) tested
- Poorly controlled HbA1c (>9.5%)
- Dilated eye exam performed
- Lipid profile performed
- Lipids controlled (LDL <130 mg/dL)
- Kidney disease (nephropathy) monitored

The measure evaluating care for persons with diabetes was expanded from tracking eye exams in previous years to including all of the components listed above in 2000. The 1999 national HMO Medicaid average for eye exams was 39%. The total Colorado Medicaid rate of 33% falls short of this rate, but the total Colorado HMO rate of 47% well exceeds last year's national rate for the eye exam component.

While no one plan clearly out-shines the others on the diabetes measure, the Unassigned Fee-for-Service unquestionably performs the most poorly. The Unassigned-Fee-for-Service ranks last on each of the components with rates far below the other plans. Kaiser Permanente, Rocky Mountain HMO, and Colorado Access tend to perform better on the measures than other plans, but no one is consistently the best. Community Health Plan of the Rockies primarily has central scores.

HEDIS Measure	Colorado Access	CHPR	Kaiser	RMHMO	United	PCPP	FFS	Total HMOs	Total Colorado
<b>Comprehensive Diabetes</b>									
HbA1c Testing	79.32% ***	46.41% *	79.07% ***	75.67% ***	NA	59.85% **	7.79% *	72.94% ***	55.48%
Poorly Controlled HbA1c*	10.95% ***	66.01% *	62.79% *	11.68% ***	NA	14.36% **	0.97% ***	21.86% *	15.53%
National 1999 HMO Eye Exam Rate:	39.00%								
Eye Exam	44.28% ***	37.25% **	39.53% **	55.23% ***	NA	26.52% *	4.87% *	47.35% ***	33.22%
Lipid Profile	52.31% ***	37.25% **	58.14% ***	58.39% ***	NA	38.93% **	6.08% *	52.84% ***	39.31%
Lipid Control	18.73% **	29.41% ***	58.14% ***	34.79% ***	NA	22.63% **	4.38% *	28.43% ***	21.77%
Monitoring for Diabetic Nephropathy	44.04% ***	25.49% **	53.49% ***	40.63% ***	NA	18.49% *	5.60% *	40.20% ***	27.63%

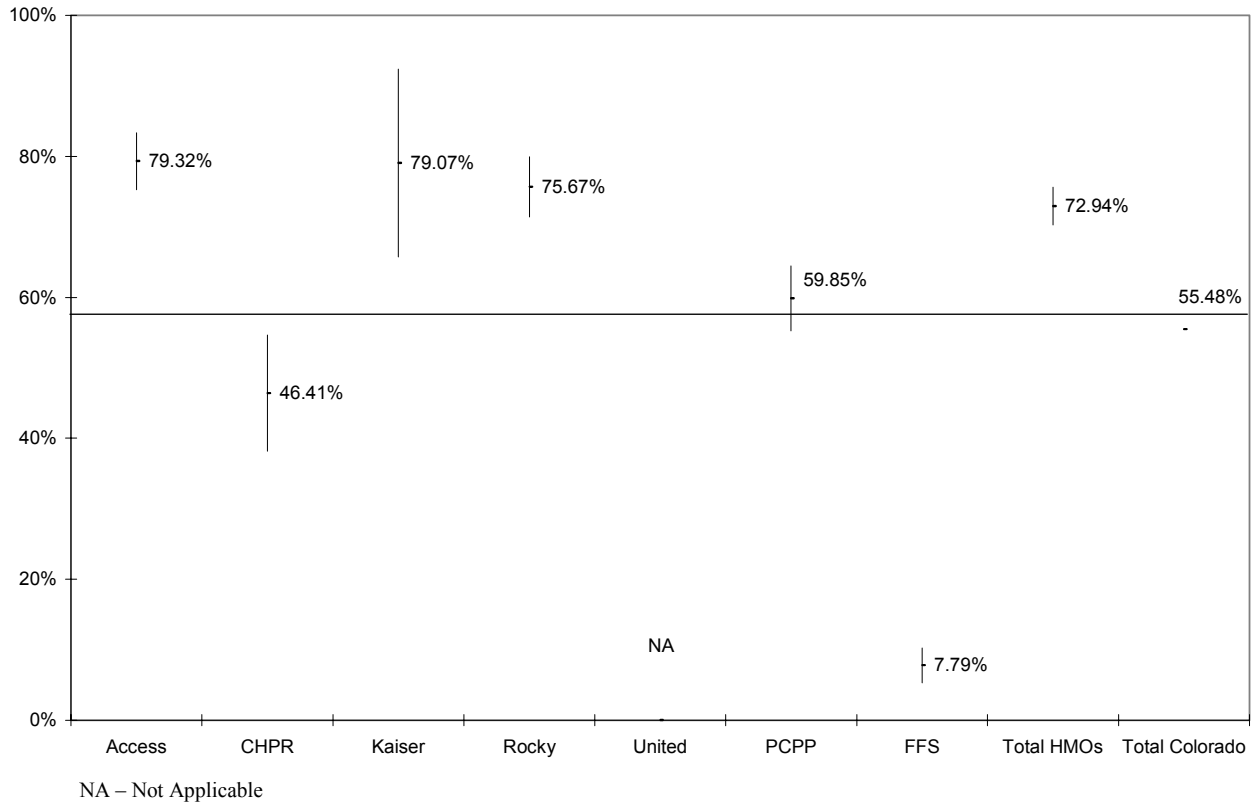
### Comprehensive Diabetes Care Summary



**Comprehensive Diabetes Care  
Hemoglobin A1c (HbA1c) tested  
2000 HEDIS (Reporting Year 1999) Colorado Medicaid**

	<b>Reported Rate</b>	<b>Lower Bound</b>	<b>Upper Bound</b>	<b>Rank</b>	<b>Statistical Difference</b>
Access	79.32%	75.28%	83.36%	1	***
CHPR	46.41%	38.18%	54.63%	5	*
Kaiser	79.07%	65.75%	92.39%	2	***
Rocky	75.67%	71.40%	79.94%	3	***
United	NA				
PCPP	59.85%	55.24%	64.47%	4	**
UFFS	7.79%	5.32%	10.25%	6	*
Total HMOs	72.94%	70.26%	75.62%		***
Total Colorado	55.48%	53.24%	57.73%		

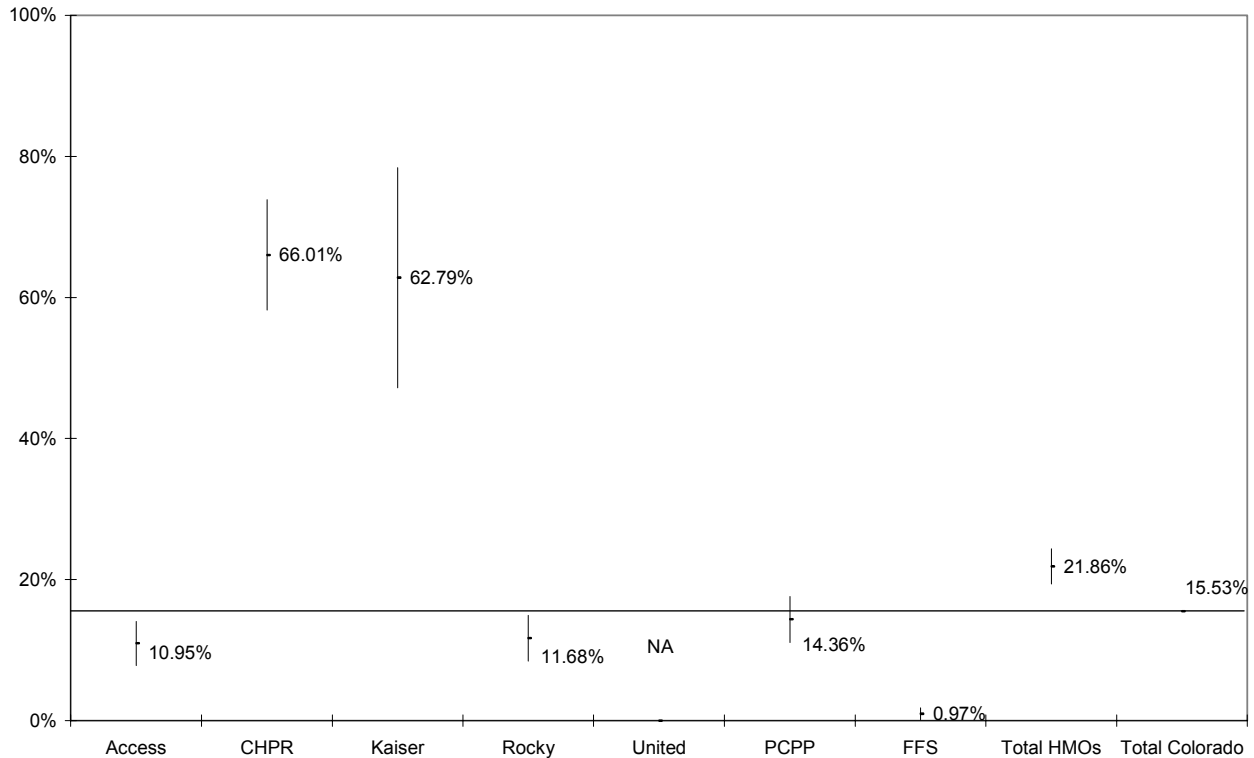
**Comprehensive Diabetes -- HbA1c Testing**



**Comprehensive Diabetes Care  
Poorly Controlled HbA1c (>9.5%)\*  
2000 HEDIS (Reporting Year 1999) Colorado Medicaid**

	<b>Reported Rate</b>	<b>Lower Bound</b>	<b>Upper Bound</b>	<b>Rank</b>	<b>Statistical Difference</b>
Access	10.95%	7.81%	14.09%	5	***
CHPR	66.01%	58.18%	73.85%	1	*
Kaiser	62.79%	47.18%	78.40%	2	*
Rocky	11.68%	8.45%	14.91%	4	***
United	NA				
PCPP	14.36%	11.09%	17.62%	3	**
UFFS	0.97%	0.15%	1.80%	6	***
Total HMOs	21.86%	19.38%	24.35%		*
Total Colorado	15.53%	13.90%	17.15%		

**Comprehensive Diabetes -- Poorly Controlled HbA1c**

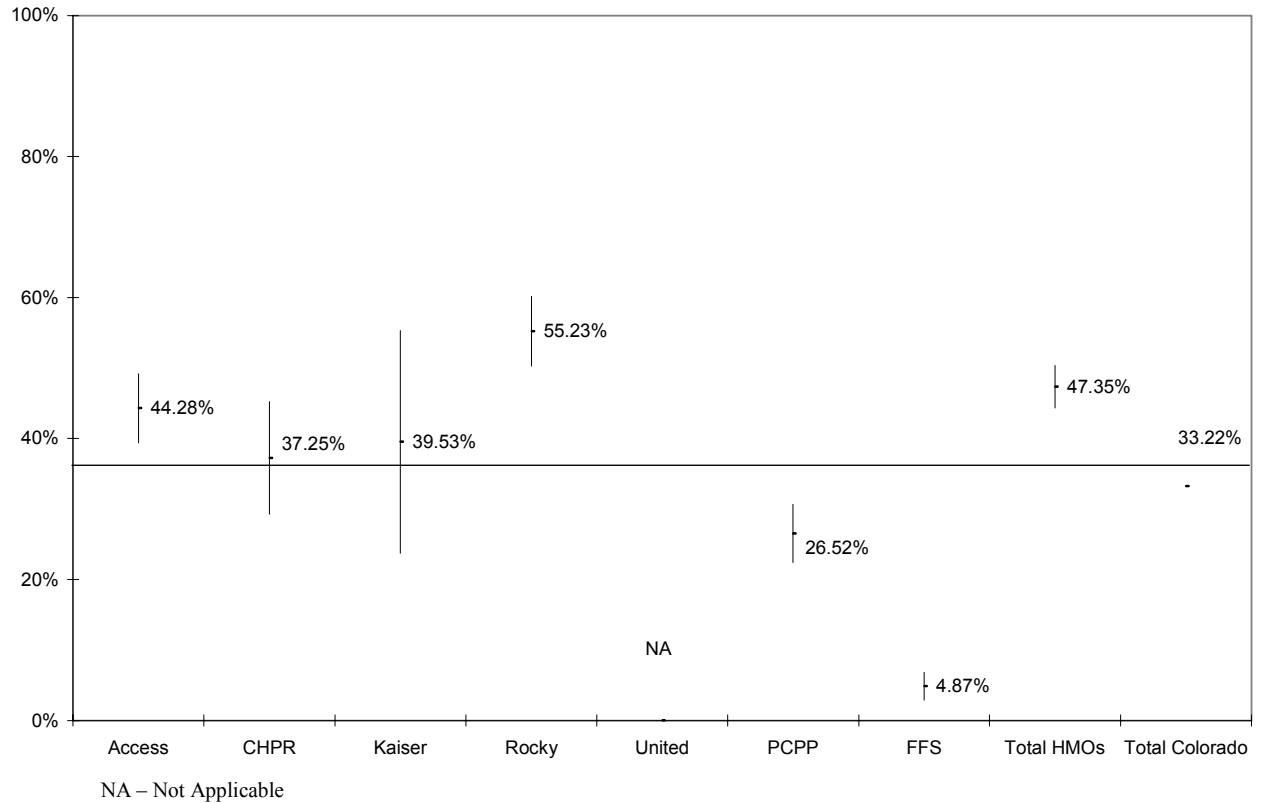


\* Lower score is preferable  
NA – Not Applicable

**Comprehensive Diabetes Care  
Dilated eye exam performed  
2000 HEDIS (Reporting Year 1999) Colorado Medicaid**

	<b>Reported Rate</b>	<b>Lower Bound</b>	<b>Upper Bound</b>	<b>Rank</b>	<b>Statistical Difference</b>
Access	44.28%	39.36%	49.21%	2	***
CHPR	37.25%	29.27%	45.24%	4	**
Kaiser	39.53%	23.76%	55.31%	3	**
Rocky	55.23%	50.30%	60.16%	1	***
United	NA				
PCPP	26.52%	22.37%	30.67%	5	*
UFFS	4.87%	2.91%	6.82%	6	*
Total HMOs	47.35%	44.34%	50.37%		***
Total Colorado	33.22%	31.10%	35.35%		
National HMO '99	39.00%				

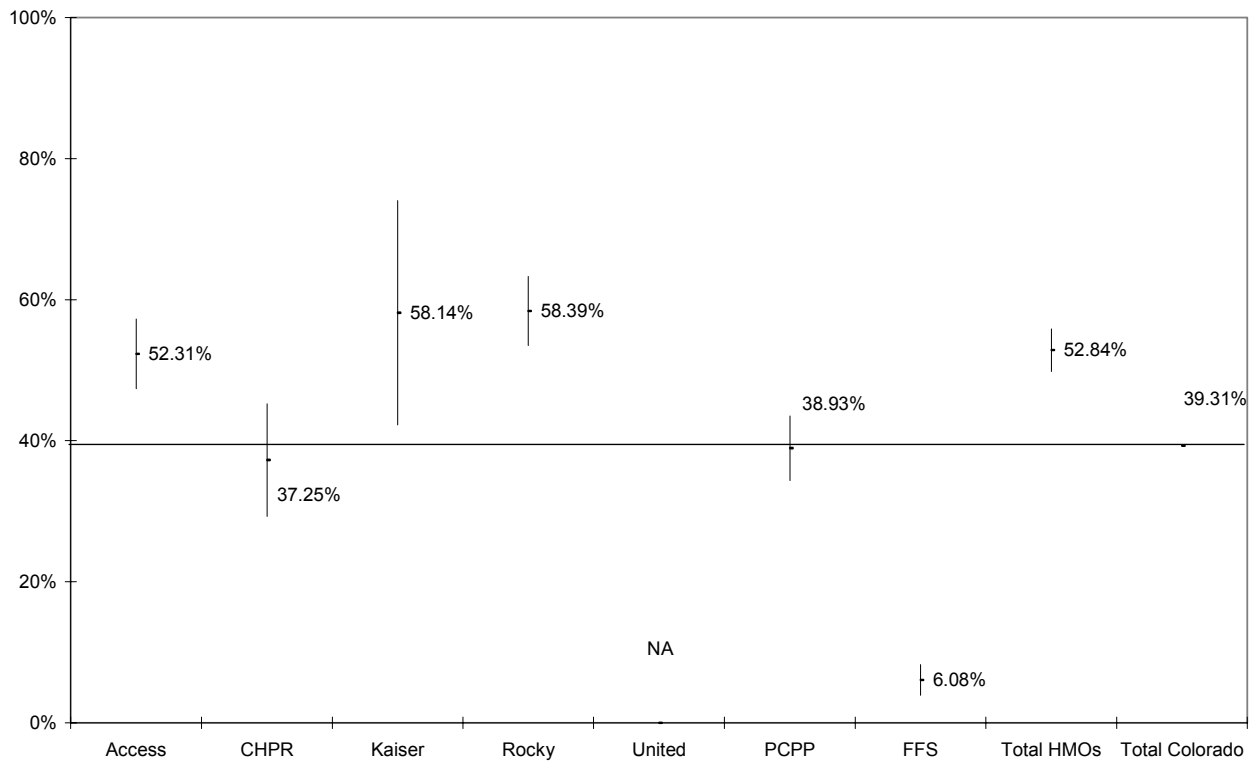
**Comprehensive Diabetes -- Eye Exams**



**Comprehensive Diabetes Care  
Lipid profile performed  
2000 HEDIS (Reporting Year 1999) Colorado Medicaid**

	<b>Reported Rate</b>	<b>Lower Bound</b>	<b>Upper Bound</b>	<b>Rank</b>	<b>Statistical Difference</b>
Access	52.31%	47.36%	57.26%	3	***
CHPR	37.25%	29.27%	45.24%	5	**
Kaiser	58.14%	42.23%	74.05%	2	***
Rocky	58.39%	53.51%	63.28%	1	***
United	NA				
PCPP	38.93%	34.34%	43.52%	4	**
UFFS	6.08%	3.89%	8.27%	6	*
Total HMOs	52.84%	49.83%	55.86%		***
Total Colorado	39.31%	37.10%	41.51%		

**Comprehensive Diabetes -- Lipid Profile**



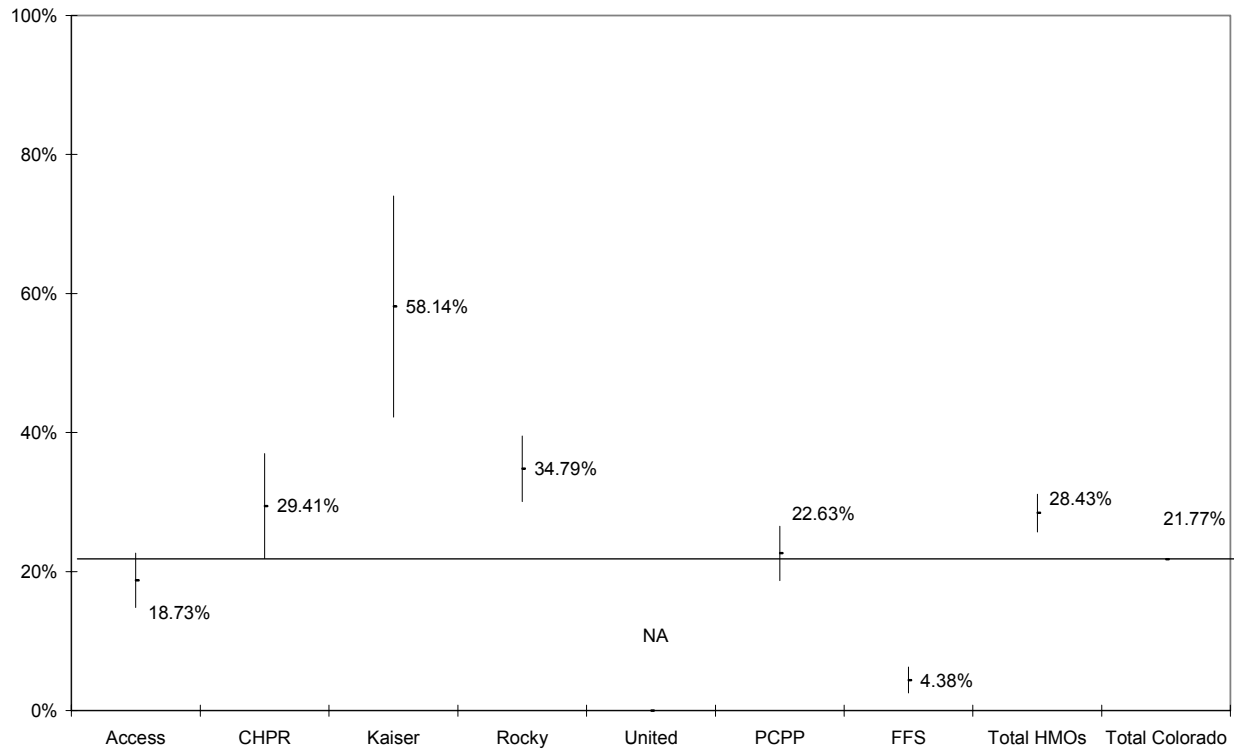
NA – Not Applicable



**Comprehensive Diabetes Care  
Lipids controlled (LDL <130 mg/dL)  
2000 HEDIS (Reporting Year 1999) Colorado Medicaid**

	<b>Reported Rate</b>	<b>Lower Bound</b>	<b>Upper Bound</b>	<b>Rank</b>	<b>Statistical Difference</b>
Access	18.73%	14.84%	22.63%	5	**
CHPR	29.41%	21.86%	36.96%	3	***
Kaiser	58.14%	42.23%	74.05%	1	***
Rocky	34.79%	30.07%	39.52%	2	***
United	NA				
PCPP	22.63%	18.70%	26.55%	4	**
UFFS	4.38%	2.52%	6.24%	6	*
Total HMOs	28.43%	25.71%	31.15%		***
Total Colorado	21.77%	19.91%	23.63%		

**Comprehensive Diabetes -- Lipid Control**

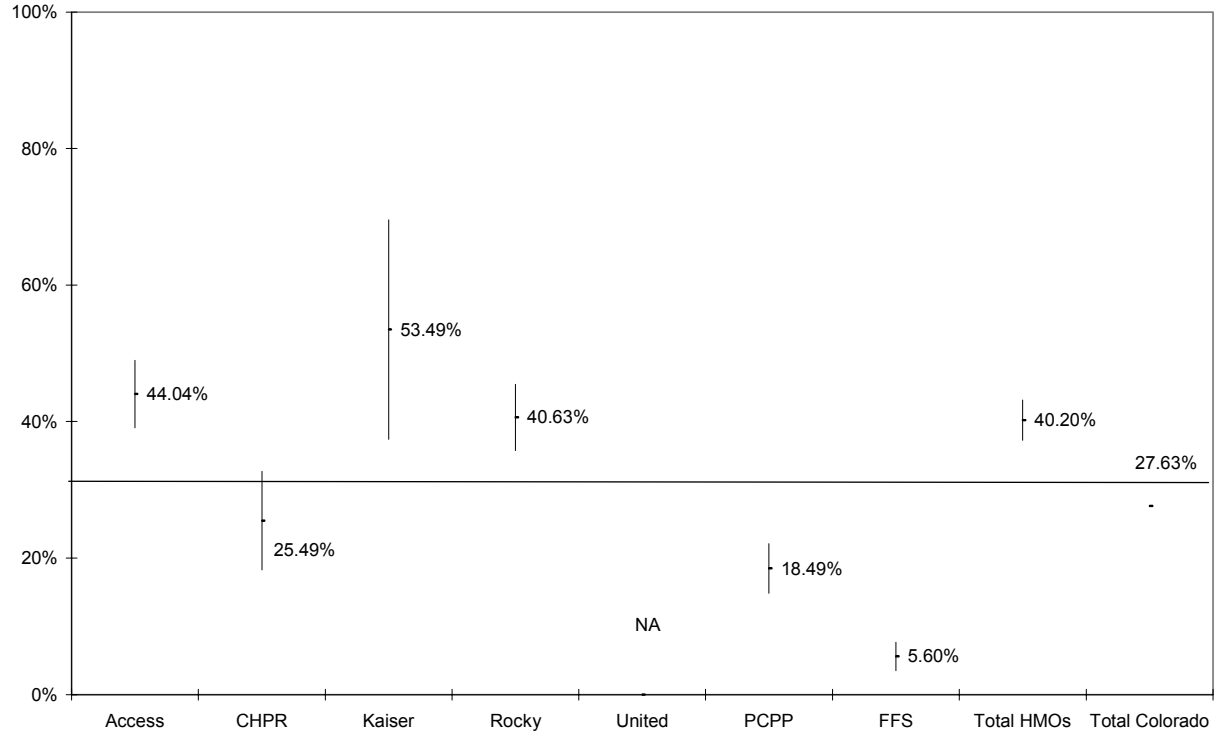


NA – Not Applicable

**Comprehensive Diabetes Care  
Kidney disease (nephropathy) monitored  
2000 HEDIS (Reporting Year 1999) Colorado Medicaid**

	<b>Reported Rate</b>	<b>Lower Bound</b>	<b>Upper Bound</b>	<b>Rank</b>	<b>Statistical Difference</b>
Access	44.04%	39.12%	48.96%	2	***
CHPR	25.49%	18.26%	32.72%	4	**
Kaiser	53.49%	37.42%	69.56%	1	***
Rocky	40.63%	35.76%	45.50%	3	***
United	NA				
PCPP	18.49%	14.86%	22.12%	5	*
UFFS	5.60%	3.50%	7.70%	6	*
Total HMOs	40.20%	37.24%	43.16%		***
Total Colorado	27.63%	25.62%	29.65%		

**Comprehensive Diabetes -- Diabetic Nephropathy**



NA – Not Applicable

## **IV. Use of Appropriate Medications for People with Asthma**

*The “Use of Appropriate Medications for People with Asthma” is a new HEDIS measure that was tested this year by Colorado Medicaid health plans. Results for this measure will not be reported in 2000 due to the test nature of the measure, but will be reported in future years.*

This measure evaluates whether members with persistent asthma are being prescribed medications acceptable as primary therapy for long-term control of asthma.

The definition used for “persistent” asthma is a rough approximation based on previous year’s service and medication utilization rather than a clinical measure of severity. This definitional approach was chosen for logistical and feasibility reasons, so that an efficient, reasonably standardized and sufficiently large population that allows for fair plan-to-plan comparison could be identified through administrative sources.

There are a number of acceptable therapies for people with persistent asthma, although best available evidence clearly 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, their recommended use is as add-on therapy with inhaled corticosteroids and therefore should not be included as counting by themselves in this numerator.

## V. Adults' Access to Preventive/Ambulatory Care

This measure reports the percentage of enrollees age 20 through 44, 45 through 64, and 65 years and older who had an ambulatory or preventive-care visit.

Inpatient procedures, hospitalizations and emergency room visits are excluded. Services pertaining to mental health and chemical dependency with a principal diagnosis code of 290-316 are also excluded.

With rates approximately eight percentage points higher for each age group than the next highest health plan, Kaiser Permanente has the highest rate of adult clients receiving preventive/ambulatory care. Kaiser is followed, in order, by Rocky Mountain HMO, Colorado Access, United, and – for all age groups except sixty-five and older – the Primary Care Physician Program. Community Health Plan of the Rockies rates sixth for most measures but still far outperforms the Unassigned Fee-for-Service by thirty to fifty percentage points in each age group.

### Adults' Access to Preventive/Ambulatory Care

<b>Adults' Access to Preventive/Ambulatory Care 2000 HEDIS (Reporting Year 1999) Colorado Medicaid</b>				
	<b>Total Adult*</b>	<b>Ages 20-44</b>	<b>Ages 45-64</b>	<b>Ages 65+</b>
Access	74.34%	73.76%	83.87%	60.23%
CHPR	62.46%	61.88%	63.32%	62.75%
Kaiser	88.47%	85.62%	92.13%	90.07%
Rocky	80.13%	76.80%	82.50%	81.49%
United	72.22%	73.81%	NA	NA
PCPP	65.33%	75.65%	76.82%	41.86%
UFFS	18.31%	31.08%	20.62%	12.41%
Total HMOs	75.40%	73.35%	73.81%	73.81%
Total Colorado	43.23%	57.96%	54.25%	26.26%

NA – Not Applicable

\* Note: "Total Adult" is not a standard HEDIS measure. It is an aggregate of all ages calculated by the Department.

## VI. Children's Access to Primary Care Providers

This measure reports the percentage of enrollees age 12 months through 24 months, 25 months through 6 years, and 7 years through 11 years who had a visit with a primary care practitioner. Children 7 years through 11 years must have been continuously enrolled for two years to be included in the measure.

Children in Colorado Medicaid age 12-24 months have the highest visit rate with percentages of 85% for all plans and 86% for all HMOs. Both of these measures exceed the 1999 national HMO Medicaid rate of 83%. Colorado also exceeds the national rate of 74% for children age 7-11 years with rates of 77% for all health plans and 83% for HMOs. Children age 25 months through 6 years tend to have the lowest visitation rates. Both the total Colorado Medicaid score (63%) and the total Colorado HMO score (64%) fall below the 1999 national HMO Medicaid rate of 73%.

Kaiser Permanente and Rocky Mountain HMO exhibit the highest rate of children's access to primary care providers for most age groups. The Unassigned Fee-for-Service has the lowest rates for three of the four age groups and nearly ties for the lowest rate on the fourth age group.

### Children's Access to Primary Care Providers

<b>Children's Access to Primary Care Providers</b>				
<b>2000 HEDIS (Reporting Year 1999) Colorado Medicaid</b>				
	<b>Total Children*</b>	<b>12 - 24 months</b>	<b>25 months - 6 yrs.</b>	<b>7 - 11 yrs.</b>
Access	67.96%	81.80%	55.80%	84.70%
CHPR	72.98%	83.83%	74.08%	63.80%
Kaiser	85.41%	89.51%	82.51%	89.08%
Rocky	82.88%	93.38%	78.17%	83.91%
United	65.85%	85.51%	57.14%	NA
PCPP	75.42%	88.05%	73.22%	74.97%
UFFS	58.59%	80.14%	50.82%	63.84%
Total HMOs	72.75%	85.91%	63.58%	83.42%
Total Colorado	69.62%	84.71%	62.83%	76.79%
National HMO 1999		83.00%	73.00%	74.00%

NA – Not Applicable

\* Note: "Total Children" is not a standard HEDIS measure. It is an aggregate of all ages calculated by the Department.

## VII. Member Months

For the Ambulatory Care and the Inpatient Utilization – General Hospital Acute Care measures, a table reporting member months per age category is required to calculate Procedures/1,000 Member Months. Member months are defined as the member’s “contribution” to the total yearly membership. For example, if Mr. X was enrolled on 2/15/99 and disenrolled on 3/15/99, then Mr. X contributes one member month.

The calculation of member months also allows a quick comparison of plan sizes. Despite the transition of clients into managed care, there are more Unassigned Fee-for-Service member months than all HMOs combined. This may be attributed to three major factors:

1. When clients are newly eligible for Medicaid they are unassigned for a few months until they select or are default assigned a managed care plan, due to the turnover prevalent in Medicaid this contributes a substantial number of the Unassigned Fee-for-Service member months.
2. Some clients, such as Medicare-Medicaid dual eligible clients, are either exempt from managed care enrollment or are voluntary – they may choose to enroll in a managed care plan or remain unassigned.
3. Some counties do not have the number of managed care options available to clients required in order to make managed care enrollment mandatory. There are substantial numbers of Unassigned Fee-for-Service clients in these counties.

The next two largest health plans are the Primary Care Physician Plan (a gatekeeper fee-for-service model of managed care, not an HMO) with approximately 603,000 member months and Colorado Access with approximately 530,000 member months. Rocky Mountain HMO is the next largest plan with not quite half the number of member months as Colorado Access. Community Health Plan of the Rockies is the next largest plan with approximately 140,000 member months. Kaiser Permanente and United Healthcare of Colorado are by far the smallest Medicaid plans with approximately 50,000 and 40,000 member months, respectively.

Member Months									
2000 HEDIS (Reporting Year 1999) Colorado Medicaid									
Age	Access	CHPR	Kaiser	Rocky	United	PCPP	FFS	Total HMOs	Total Colorado
<1	43,206	9,889	3,380	16,025	8,658	28,317	56,881	81,158	166,356
1-9	217,594	45,413	20,889	79,638	17,445	183,956	204,738	380,979	769,673
10-19	101,693	25,363	8,276	39,830	7,291	104,505	163,346	182,453	450,304
20-44	89,747	36,335	9,585	47,816	6,744	126,115	213,177	190,227	529,519
45-64	50,567	15,385	2,176	27,066	268	86,502	117,332	95,462	299,296
65-74	19,008	5,384	2,827	12,268	0	48,221	113,114	39,487	200,822
75-84	6,299	1,786	1,538	8,169	0	19,660	113,390	17,792	150,842
85+	1,170	361	728	5,789	0	5,997	83,807	8,048	97,852
Unknown	0	0	0	0	0	0	0	0	0
Total	529,284	139,916	49,399	236,601	40,406	603,273	1,065,785	995,606	2,664,664

## VIII. Ambulatory Care

This measure summarizes utilization of ambulatory services in the following categories: Emergency Department Visits and Outpatient Visits.

Utilizing the member months noted in section VII, Visits/1000 Member Months is calculated with the following equation:

$$(\text{Total Visits/Member Months for age category}) * 1,000$$

**Emergency Department Visits (ED):** This category measures use of ED services, which are included because they may sometimes be used as a substitute for ambulatory clinic encounters. While patient behavior is a factor in the decision to use an ED rather than a clinic or physician's office, the decision may be a result of insufficient access to primary care.

Community Health Plan of the Rockies has the highest number of emergency department visits per 1,000 member months of any of the health plans for all age groups except two.

Since the Department does not have access to all medical claims for Medicaid-Medicare dual eligible clients, their emergency department claims were not included in the Primary Care Physician Program and Unassigned Fee-for-Service calculations. Dual eligible clients are almost exclusively enrolled in the Unassigned Fee-for-Service program which accounts for the abnormally low rates for the age groups 45-64 and above. The Unassigned Fee-for-Service, then, should only be included in cross-plan comparisons for ages up to 44.

**Ambulatory Care**  
**Emergency Department Visits per 1,000 Member Months**  
**2000 HEDIS (Reporting Year 1999) Colorado Medicaid**

Age	Access	CHPR	Kaiser	Rocky	United	PCPP	FFS	Total HMOs	Total Colorado
<1	88.0	114.1	75.4	70.1	61.3	91.6	83.0	84.3	85.1
1-9	40.8	44.9	21.9	32.4	32.3	45.2	33.5	38.1	38.6
10-19	30.2	36.9	17.0	27.9	23.9	33.5	33.4	29.8	31.9
20-44	51.6	74.1	38.7	55.4	60.6	53.1	32.3	56.5	46.0
45-64	35.0	51.0	29.4	43.0	48.5	40.4	9.3	39.8	28.0
65-74	11.7	21.2	2.5	18.8	NA	8.0	0.8	14.5	5.2
75-84	9.4	23.0	2.0	23.9	NA	8.6	0.3	16.7	3.3
85+	20.5	24.9	0.0	19.7	NA	18.5	0.3	18.3	2.9
Unknown									
Total	42.4	55.3	26.3	38.8	41.9	41.9	23.6	42.5	34.8

NA – Not Applicable

**Note:** ED visits with a principal diagnosis of mental health or chemical dependency (ICD-9-CM codes 290-316) are excluded from this measure.

**Outpatient Visits:** This category reports face-to-face encounters between the practitioner and patient and provides a reasonable proxy for professional ambulatory encounters. It is neither a strict accounting of all ambulatory resources nor an effort to be all-inclusive.

Kaiser Permanente has a substantially higher number than any other plan of outpatient visits per 1,000 member months for children under age 1: 1,007 compared to the next highest plan, Rocky Mountain HMO, at 609. Rocky Mountain HMO, however, consistently has the highest number of outpatient visits for ages 45 and above.

As noted with emergency department visits, the Department does not have access to all medical claims for Medicaid-Medicare dual eligible clients, their outpatient visit claims were not included in the Primary Care Physician Program and Unassigned Fee-for-Service calculations. Dual eligible clients are almost exclusively enrolled in the Unassigned Fee-for-Service program which accounts for the abnormally low rates for the age groups 45-64 and above. The Unassigned Fee-for-Service, then, should only be included in cross-plan comparisons for ages up to 44.

**Ambulatory Care**  
**Outpatient Vists per 1,000 Member Months**  
**2000 HEDIS (Reporting Year 1999) Colorado Medicaid**

Age	Access	CHPR	Kaiser	Rocky	United	PCPP	FFS	Total HMOs	Total Colorado
<1	419.7	532.7	1006.5	609.3	272.6	583.0	486.8	479.6	499.7
1-9	178.4	202.8	93.8	249.9	112.7	279.9	147.9	188.6	199.6
10-19	157.4	153.7	144.8	182.8	90.0	228.3	150.8	159.2	172.2
20-44	265.6	238.9	373.8	289.3	196.5	288.1	94.8	269.4	203.6
45-64	386.5	292.6	433.4	451.7	190.3	440.8	66.4	390.4	277.9
65-74	203.4	260.4	394.4	435.6	NA	178.9	12.9	297.1	108.6
75-84	205.9	182.0	360.2	562.5	NA	163.9	21.6	380.6	82.5
85+	144.4	193.9	230.8	559.3	NA	152.1	31.1	452.9	73.2
Unknown									
Total	229.9	238.4	261.6	322.0	157.4	296.9	109.9	251.6	205.2

NA – Not Applicable

**Note:** Outpatient visits with a principal diagnosis of mental health or chemical dependency (ICD-9-CM codes 290-316) are excluded from this measure.



## IX. Inpatient Utilization - General Hospital Acute Care

This measure summarizes utilization of acute inpatient services.

Utilizing the member months noted in section VII, Discharges per 1,000 Member Months and Days per 1,000 Member Months are calculated using the following equations:

$$(\text{Total Discharges/Member Months for age category}) * 1,000$$

$$(\text{Total Days/Member Months for age category}) * 1,000$$

With 11 discharges per 1,000 member months, the 1999 national HMO Medicaid average is higher than the total Colorado Medicaid rate of 9.3 and the total Colorado HMO rate of 9.5. No one health plan has the highest number of discharges per 1,000 member months for all age groups, but Kaiser Permanente consistently has the highest number for ages 45 and above. The 20-44 age group generally has much higher numbers of discharges for each of the plans and each of the age groups. This is consistent with Colorado Medicaid demographics since this age cohort includes the majority of women of childbearing age.

The Unassigned Fee-for-Service has the highest number of inpatient days per 1,000 member months for age groups <1, 10-19, and 20-44. The under 1 age group is nearly three times the size of that of the plan with the next highest number of days. Colorado Access has the highest number of inpatient days for ages 45-84, with substantially more days than the other plans for the 75-84 age group.

At 3.14 days, Colorado HMOs as a group report shorter average lengths of stay than the 1999 national HMO Medicaid average length of stay of 4 days. The total Colorado Medicaid rate of 4.32 days only slightly exceeds the 1999 national rate. For the three youngest age groups – which can be appropriately evaluated for this plan – the Unassigned Fee-for-Service has the longest average length of stay of any of the health plans. For each of the other age groups except age 85 and above the Primary Care Physician Program has the longest average lengths of stay.

As noted in section VIII, the Department does not have access to all medical claims for Medicaid-Medicare dual eligible clients, their general hospital/acute care discharges and days per 1,000 member months were not included in the Primary Care Physician Program and Unassigned Fee-for-Service calculations. Dual eligible clients are almost exclusively enrolled in the Unassigned Fee-for-Service program which accounts for the abnormally low rates for the age groups 45-64 and above. The Unassigned Fee-for-Service, then, should only be included in cross-plan comparisons for ages up to 44. The average length of stay for these age groups for the Unassigned Fee-for-Service is accurate for the observed discharges and days, but is likely skewed from the true average length of stay for these age groups due to dual eligible clients not being represented.

**Inpatient Utilization - General Hospital/Acute Care  
2000 HEDIS (Reporting Year 1999) Colorado Medicaid**

**Discharges per 1,000 Member Months**

Age	Access	CHPR	Kaiser	Rocky	United	PCPP	FFS	Total HMOs	Total Colorado
<1	8.6	6.8	4.4	8.4	5.4	4.0	18.2	7.8	10.7
1-9	2.5	1.8	1.5	1.6	1.5	2.1	1.6	2.1	2.0
10-19	7.6	9.0	2.5	7.7	11.9	7.0	11.2	7.8	8.8
20-44	22.7	24.6	17.3	22.2	43.6	20.4	27.7	23.4	24.4
45-64	16.7	13.3	20.7	14.2	3.7	11.8	4.4	15.5	10.1
65-74	10.1	8.5	29.4	4.3	NA	5.2	1.5	9.5	4.0
75-84	14.4	11.8	27.3	2.3	NA	7.7	1.3	9.7	3.1
85+	9.4	11.1	45.3	2.1	NA	10.7	1.0	7.5	2.1
Unknown									
Total	9.2	11.1	8.8	8.9	11.3	8.8	9.4	9.5	9.3

**Days per 1,000 Member Months**

Age	Access	CHPR	Kaiser	Rocky	United	PCPP	FFS	Total HMOs	Total Colorado
<1	50.6	30.6	NR	32.9	22.8	16.4	143.0	39.6	71.0
1-9	8.1	4.6	NR	4.8	3.1	9.2	7.9	6.3	7.4
10-19	19.4	22.6	NR	31.3	26.3	37.4	64.8	21.9	41.0
20-44	61.2	61.6	NR	55.4	92.1	80.7	102.5	57.8	81.3
45-64	79.8	64.5	NR	62.7	7.5	75.4	34.8	70.5	57.9
65-74	46.8	42.3	NR	18.7	NA	40.4	22.1	34.1	28.8
75-84	88.3	26.3	NR	9.5	NA	49.6	13.9	38.3	21.4
85+	59.0	88.6	NR	13.8	NA	62.0	9.2	22.5	13.5
Unknown									
Total	32.1	33.0	NR	29.1	26.4	43.2	48.0	29.7	40.0

**Average Length of Stay**

Age	Access	CHPR	Kaiser	Rocky	United	PCPP	FFS	Total HMOs	Total Colorado
<1	5.88	4.52	NR	3.90	4.19	4.11	7.85	5.06	6.62
1-9	3.18	2.54	NR	3.10	2.08	4.36	5.01	2.94	3.74
10-19	2.55	2.50	NR	4.07	2.21	5.30	5.79	2.81	4.64
20-44	2.70	2.50	NR	2.50	2.11	3.95	3.70	2.47	3.33
45-64	4.78	4.84	NR	4.42	2.00	6.38	7.92	4.54	5.74
65-74	4.63	4.96	NR	4.34	NA	7.73	14.85	3.60	7.29
75-84	6.11	2.24	NR	4.11	NA	6.46	10.61	3.94	6.84
85+	6.27	8.00	NR	6.67	NA	5.81	9.25	3.02	6.38
Unknown									
Total	3.48	2.99	NR	3.29	2.34	4.91	5.11	3.14	4.32

NA – Not Applicable  
NR – Not Reported

Note: The Unassigned Fee-for-Service should only be included in cross-plan comparisons for ages up to 44. Total Inpatient excludes nonacute care, newborns, mental health and chemical dependency.

## X. Arrangements with Public Health, Educational, and Social Service Organizations

This measure provides a description of the ways in which health plans provide and coordinate services from public health, educational, and social service agencies for their clients. This measure is only completed by HMOs. The PCPP and FFS do not complete this measure since they do not have central administrations to coordinate such alliances.

### Arrangements with Public Health, Education and Social Service Organizations 2000 HEDIS (Reporting Year 1999) Colorado Medicaid

#### Colorado Access

Agency	Service Area	Type of Agreement	Services Covered
4 Parent's Helpline	Statewide	Informal	Parent Information and Support
Adams Early Childhood Connection	Adams	Informal	Education
Anchor Center	Denver	Informal	Education
Arapahoe County Social Services	Arapahoe	Informal	Social Services
Arapahoe Early Childhood Network	Arapahoe	Informal	Education
Developmental Pathways	Aurora	Informal	Developmental Disabilities Services
Fitzsimmons Childhood Development Center	Denver	Informal	Education
Health Colorado	Statewide	Formal	Health
Northwest Speciality Care Center	Jefferson	Formal	Medical
Project Access	Denver Metro	Formal	Service Coordinaton
Rehab Designs	Denver Metro	Formal	Durable Medical Equipment
Swanson Preschool	Jefferson	Informal	Education

#### Community Health Plan of the Rockies

Agency	Service Area	Type of Agreement	Services Covered
Health Care Policy & Financing/Special Needs Kids	Entire MCO service area	Formal Written Contract	Care coordination for children with special healthcare needs
Prenatal Plus	Entire MCO service area	Memo of Understanding	Case management
Commerce City School Based Health Care	Entire MCO service area	Primary Care Service Agreement	Primary care services

**Arrangements with Public Health, Education and Social Service Organizations (continued)  
2000 HEDIS (Reporting Year 1999) Colorado Medicaid**

**Kaiser Permanente**

Agency	Service Area	Type of Agreement	Services Covered
Arapahoe House	Entire Service Area	Informal Unwritten	Substance Abuse Treatment
Hospice of Metro Denver	Denver/Boulder	Formal Written Contract	End of life services in home or skilled nursing facility
Visiting Nurses Association	Entire Service Area	Formal Written Contract	IV, PT, OT, & standard care services
American Red Cross	Metro Denver	Informal Unwritten	Health education & first aid classes, & support groups
Arthritis Foundation	Metro Denver	Informal Unwritten	Education, support
Community Health Services	Adams County District 12 schools	Formal Written	Primary care in school-based health center
Sheridan Health Services	Sheridan schools	Formal Written	Primary care in school-based health center
Denver Health	6 Denver school-based ctrs	Formal Written	Primary care in school-based health center
Asian Pacific Center	Metro Denver	Formal Written	Mental health for Asian/non-English speaking
Adams County Mental Health Center	Adams	Formal Written	Out-patient Mental Health
Boulder Community Mental Health Center	Boulder	Formal Written	Out-patient Mental Health
Parkinsons Association of the Rockies	Entire Service Area	Informal Unwritten	Education, support groups

**Rocky Mountain HMO**

Agency	Service Area	Type of Agreement	Services Covered
Health Departments	All Colorado counties except Baca and Gunnison	Informal	Child/Adult immunizations, well-child and woman exams, prenatal care, cancer screens
Social Service Agencies	All Colorado counties except Baca and Gunnison	Informal	Adult/child protection services
Bright Beginnings	Mesa	Informal	New baby visits, education/community resource information
School District	Mesa	Informal	Collaboration for immunizations and flu shots
Gray Gourmet	Counties	Informal	Flu shot clinics at senior meal sites

**United Healthcare**

Agency	Service Area	Type of Agreement	Services Covered
NA	NA	NA	NA