State of Colorado Office of the State Auditor

Historical HMO and Fee for Service Costs Review and Analysis

June 2001

Prepared by:
Allan Gold, FSA, MAAA, Senior Consultant
Jeffrey D. Fox, Principal

Reden & Anders, Ltd.

An ingenix Company

Consultants & Actuaries
1200 Seventeenth Street, Suite 750
Denver, Colorado 80202

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June 22, 2001

Members of the Legislative Audit Committee:

This report contains the results of a review of an internal study by the Department of Health Care Policy and Financing on the HMO rate-setting and budgeting processes. The review was conducted pursuant to Section 2-3-103, C.R.S., which authorizes the State Auditor to conduct audits of all departments, institutions, and agencies of state government. This report presents our findings, conclusions, and recommendations, and the responses of the Department of Health Care Policy and Financing.

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I. Recommendation Locator

Rec. No.	Page No.	Recommendation Summary	Agency Addressed	Agency Response	Implementation Date
1	11	Improve the comparison of HMO and Fee For Service per capita costs and trends by analyzing equivalent benefits and keeping populations by category constant.	Department of Health Care Policy and Financing	Agree	Beginning July 2001
2	15	Improve comparison of HMO and FFS per capita costs and trends by developing management reports which include detail such as more population categories, cost details, and retroactive waiting periods.	Department of Health Care Policy and Financing	Agree	August 2003 and Ongoing
3	16	Investigate whether maternity payments for 1998 and 1999 have been assigned to the appropriate fiscal year. For comparing HMO and FFS per capita trends, adjust HMO trend calculations to reflect changes in birth rates.	Department of Health Care Policy and Financing	Agree	July 2001 and August 2002
4	18	To calculate per capita trends, normalize HMO and Fee For Service costs using constant risk scores.	Department of Health Care Policy and Financing	Agree	July 2001
5	20	Monitor compliance with statutory limits regarding HMO rates relative to FFS costs. If HMO rates consistently exceed the 95% statutory limit, recommend policy alternatives to the General Assembly.	Department of Health Care Policy and Financing	Agree	August 2002
6	22	Update the data used to develop the factors in the risk adjustment calculation. To the extent possible, reduce the lag time between the period used to set HMO and Fee For Service risk scores and the payment period.	Department of Health Care Policy and Financing	Agree	January 2002
7	25	Establish a database and process, that includes comprehensive eligibility and claims/encounter data.	Department of Health Care Policy and Financing	Agree	Ongoing
8	30	Develop management reports so key historical data can be monitored and used in the budget and HMO rate setting processes.	Department of Health Care Policy and Financing	Agree	Beginning after development of database needed for Rec. No. 1

II. Introduction and Summary

The Colorado Department of Health Care Policy and Financing (HCPF) is responsible for administration of the State's Medicaid Program. Medicaid provides health care services for Colorado's poor, elderly and disabled populations. Those eligible for Medicaid are placed in one of the following categories of assistance:

- Old Age Pensioners aged 65 years or older (OAP-A)
- Old Age Pensioners under age 65 (OAP-B)
- Aid to the Needy Disabled and Aid to the Blind (AND/AB)
- Aid to Families with Dependent Children – Adults (AFDC-A)
- Aid to Families with Dependent Children – Children (AFDC-C)
- Foster Care (FC)
- Baby Care – Adults (BC-A)
- Baby Care – Children (BC-C)
- Old Age Pensioners – State Only (OAP-SO)
- Aliens or Non-Residents
- Qualified Medicare Beneficiaries (QMBs)

Appendix 7 provides a description of each of the categories listed above.

Medicaid costs have risen dramatically over the last five years. Total costs for the Department of Health Care Policy and Financing were about $1.6 billion in Fiscal Year 1997 compared to an estimated $2.37 billion in Fiscal Year 2002, an increase of about 48%. Payments for Medicaid health care services (excluding Medicaid programs managed by the Department of Human Services) have grown from just over $1.0 billion in Fiscal Year 1997 to an expected $1.54 billion in Fiscal Year 2002, an increase of nearly 55%, or an average of just over 9% per year. The number of individuals eligible for Medicaid has risen over the same period at a rate of about 2% per year, from just over 270,000 eligibles in Fiscal Year 1997 to a projected 299,000 in Fiscal Year 2002. However, there has been a higher rate of growth in recent years, with a 5.7% increase from 1999 to 2000, an estimated 5.4% increase from 2000 to 2001, and an expected 3.8% increase from 2001 to 2002 in the number of eligible Medicaid beneficiaries.

The following table shows recent years' costs and numbers of eligible beneficiaries by category of eligibility.

Introduction and Summary (Cont'd)

Table 1
Colorado Medicaid Program
Health Care Services Costs and Eligible Beneficiaries
Fiscal Years 1997and 2002

Eligibility Category	Total Cost		% Chg	Number of Eligibles		% Chg
	FY 1997 (actual)	FY 2002 (estimate)		FY 1997 (actual)	FY 2002 (estimate)	
OAP-A	$404,328,281	$556,434,026	37.6	33,106	35,286	6.6
OAP-B	$34,872,757	$73,869,314	111.8	4,628	5,643	21.9
OAP-SO	$9,245,047	$9,853,133	6.6	3,152	3,395	7.7
AND/AB	$308,275,423	$486,410,099	57.8	50,091	50,036	-0.1
AFDC-A	$94,922,130	$90,514,550	-4.6	35,605	28,500	-20.0
AFDC-C & BC-C	$124,458,731	$207,043,399	66.4	117,631	130,294	10.8
FC	$32,819,969	$33,905,913	3.3	9,414	13,816	46.8
BC-A	$33,555,620	$36,446,458	8.6	5,425	5,876	8.3
Aliens/Non-Residents	$15,914,957	$46,138,111	189.9	5,323	17,990	238.0
QMBs	$5,788,771	$9,063,543	56.6	5,887	8,696	47.7
Total	$1,064,181,686	$1,549,678,546	45.6	270,262	299,532	10.8

Source: Department of Health Care Policy and Financing Final Premium Request, February 15, 2001.
Note: Excludes expenditures of Medicaid programs managed by the Department of Human Services.

Individuals covered under Medicaid are served either on a Fee For Service (FFS) basis or a capitated basis. Under FFS, Medicaid pays providers for each covered service provided to eligible participants. Under a capitated arrangement, Medicaid pays HMOs at a flat rate per eligible participant rather than for actual services provided. The following shows the average number of individuals enrolled in HMO programs over the past five years:

Introduction and Summary (Cont'd)

Table 2
Colorado Medicaid Program
Average Monthly Enrollees in HMOs
Fiscal Years 1997 to 2001

Eligibility Category	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001
OAP-A	3,733	4,166	4,699	5,310	5,898
OAP-B	978	1,036	1,438	1,814	1,921
OAP-SO	575	667	1,122	1,525	1,518
AND/AB	8,875	9,067	12,810	16,703	17,709
AFDC-A	13,041	11,528	8,892	10,632	13,545
AFDC-C & BC-C	44,049	44,859	42,630	54,633	66,318
FC	161	204	398	842	1,173
BC-A	1,078	1,259	1,007	1,426	1,726
QMBs	80	33	3	3	2
Total	72,570	72,819	72,999	92,888	109,810

Source: Data provided by HCPF.

Medicaid costs can be broken down into three main expenditure areas – acute care fee-for-service, HMO capitation payments, and long term care. The following table shows Fee For Service and HMO expenditures for Fiscal Years 1997 through 2000. During these years, long term care costs ranged from about $415 million to about $540 million.

Table 3
Medicaid Health Care Services Expenditures
Fiscal Years 1997 Through 2000

Expenditure Category	FY 1997 (actual)	FY 1998 (actual)	FY 1999 (actual)	FY 2000 (estimate)	Percent Increase
FFS	$484,186,167	$502,234,281	$505,479,369	$509,751,289	5.3%
HMO	$134,850,897	$145,463,056	$169,704,402	$243,106,706	80.3%
Total	$619,037,064	$647,697,337	$675,183,771	$752,857,995	21.6%

Source: Fiscal Year 2001 Appropriations Report and HMO expenditure data provided by HCPF.

Medicaid now comprises over 18% of the State's total operating budget. Its importance to all state programs cannot be overstated. Given the significance of the Medicaid budget, the Joint Budget Committee raised concerns during the last legislative session about certain unusual and unexplained Medicaid expenses and trends. First, rates for Medicaid HMOs appeared to have increased between 14% and 16% per year, while FFS costs were reported to be increasing at about 3.8%. Second, supplemental payments totaling about $30.5 million in Fiscal Year 1999 and about $32.0 million in Fiscal Year 2000 had been made without being fully explained. Finally, there was a general concern that the Department's new risk adjustment system for HMO rates could lead to rising costs. In May 2000, the Joint Budget Committee asked the Department of

Introduction and Summary (Cont'd)

Health Care Policy and Financing to conduct an analysis of Medicaid budgeting and HMO rate setting, addressing seven specific questions. The Office of the State Auditor was asked to oversee this analysis.

This report contains the results of our review of the Department's analysis and includes comments and recommendations for improving budgeting and rate setting. The report is divided into four sections:

1. *Historical Health Maintenance Organization and Fee For Service Per Capita Costs*. This section addresses the Department's methodology for determining Fee For Service costs in comparison to HMO costs.

2. *The Risk Adjustment Process*. This section addresses the Department's new risk adjustment system, its implementation and impact on HMO costs, and the potential for over-assessment of risk.

3. *Supplemental Payments*. This section addresses methods to better track and monitor supplemental payments for maternity delivery, federally qualified health center payments, and retroactive eligibility payments.

4. *Budget Reconciliation and Data Management*. This section reviews the Department's procedures for reconciling budget to actual data and for forecasting Medicaid expenditures. The section delineates opportunities for enhancing rate construction and management reporting.

CONCLUSIONS

Our review of the Department of Health Care Policy and Financing's rate setting and budgeting processes indicates that the Department has made progress in addressing some rate-setting and budgeting concerns. However, substantial improvements need to be made in the following areas:

- **Fee For Service and HMO Rate Trends:** To date, the Department's method for comparing Fee For Service to HMO rates has been to independently calculate the annual FFS per capita cost and the HMO per capita, determine the rates of increase or decrease in each, and compare the trends. The Department needs to "normalize" its data so that fee for service costs can be compared to HMO costs on an apples-to-apples basis. Working within the limits of available data, we adjusted the HMO and FFS per capita cost estimates for such factors as population mix changes, birth rates, and health status changes. Other adjustments for demographic characteristics, retroactive eligibility, third party recoveries, and changes in benefits over time could be made with more detailed information. Currently, the Department does not have such detailed information readily available.

- **Risk Adjustment:** HCPF has done a good job of implementing methodologies to appropriately risk-adjust rates. HCPF has reviewed encounter data submitted by HMOs

to assess both potential under-reporting and over-reporting, minimizing the risk that HMOs will take advantage and over-assess the risk of their case mix. The Department should continue to monitor risk adjustments, because this area can significantly affect the budget. In addition, the Department should update the data used in the risk model to use the most recent data available and decrease to the extent possible the lag time between risk score period and payment period.

- **Supplemental Payments:** As a result of the Department's study over the past year, there have been improvements in the identification of supplemental payments. These are payments made to HMOs in addition to monthly capitation payments. In Fiscal Year 2000, supplementals totaled $32 million, or about 13% of total HMO payments. Through this review, it was determined that the majority of supplementals relate to payments for maternity (labor and delivery) and federally qualified health center cost settlements. HCPF has taken several steps to improve its information on supplemental payments. First, the Department is working with Consultec, its new fiscal agent, to better identify supplementals and implement an automated system. In September 2000 the Department developed a relational database to track and report supplemental payments. This database represents a stop gap solution until the payments can be fully automated. Second, HCPF (together with HMOs) has developed a standardized form for HMOs to submit supplemental payment requests.
- **Management Systems:** The Department needs to develop management reports that provide detail for expenditures within each of the Medicaid eligibility categories. Establishing baseline information that identifies case mix, age, gender, Medicare status, institutionalized status and geography for each eligibility category will significantly enhance the Department's ability to set rates and forecast expenditures. For example, the observed increases in per capita costs from year to year can mask underlying trends such as increased birth rates. By obtaining and using detailed information, HCPF can separate factors such as changes in utilization from changes in rates and costs.
- **Budget Reconciliation and Review**: The Department needs to significantly improve its review of basic rate and budget information. For example, the Department submitted information to the Joint Budget Committee that showed that Fee For Service (FFS) costs had increased by 3.8%. This appeared very unusual in light of HMO costs increasing by over 14%. The Department later determined that the FFS trend was understated due to an error in calculation. In addition, as part of its response to the JBC, the Department submitted data comparing HMO and FFS costs which were not properly normalized. These data indicated that HMO rates were as low as 71% of FFS costs. Our analysis shows that the true HMO rates were close to the 95% limit set in statute. These are both examples of data reported by the Department that were not reasonable. The errors in the information presented could have been identified if basic review processes were in place. Finally, the Department should develop detailed reporting and consistent definitions of data to enable reconciliations of the budget and HMO rates.

III. Historical Per Capita Costs and Trends

FEE FOR SERVICE PER CAPITA COSTS AND TRENDS

One of the underlying questions raised by the Joint Budget Committee relative to the Department's HMO rate-setting process was why HMO rates were reported to be increasing considerably more rapidly than Fee For Service (FFS) costs. Department budget documents had indicated that per member per month cost increases for HMOs ranged from 14% to 16% in Fiscal Years 1998 through 2000 while FFS costs had increased only 3.8% from Fiscal Year 1995 through Fiscal Year 1999. This chapter reviews calculations of FFS and HMO per capita expenditures as well as compliance with state payment limits.

In response to these concerns, HCPF determined that the reported FFS trend had been understated because HMO clients were mistakenly included in the calculation of per member costs. HCPF corrected this mistake and adjusted the FFS benefits to be similar to the HMO benefits to provide a cost figure that would be more comparable to FFS. The result was an 11.7% per annum change (see pages 3-5 of HCPF's report). This trend is more consistent with the reported increase in HMO costs of between 14% and 16%.

Table 4 below shows the Department's calculations of HMO and Fee For Service per capita costs and the related trends.

Table 4
Comparison of HMO and FFS Per Capita Costs

Year	HMO Per Capita[1]	Implied Trend	FFS Per Capita[1]	Implied Trend
FY 1995	$1,960		$2,007	
FY 1996	$1,857	-5.3%	$2,286	13.9%
FY 1997	$1,873	0.9%	$2,563	12.1%
FY 1998	$2,024	8.1%	$2,848	11.1%
FY 1999	$2,315	14.4%	$2,938	3.2%
FY 1997 to FY 1999 Average		11.2%		7.1%
Overall Average		4.2%		10.0%

Source: [1] HCPF response to JBC, P. 14.

We independently calculated FFS per capita costs based on Fee For Service expenses shown in HCPF's November 2000 budget for Fiscal Year 2002 (with home health added). We also made other adjustments to make the benefits included in the FFS budget similar to the HMO benefits. Specifically, Fee For Service costs include the following benefits not covered by the HMOs:

- Therapy visits over 20;
- EPSDT dental care (Early and Periodic Screening Diagnosis and Treatment, or EPSDT, is a voluntary program within Medicaid for persons from birth to age 21 designed to provide early detection and treatment of health problems).

Historical Per Capita Costs and Trends (Cont'd)

- The majority of behavioral health;
- Amb-o-cab (transportation for people in wheel chairs);
- Private Duty Nursing; and
- County transportation services.

Adjusting for benefits is critical to ensure comparability of the per capita costs. For example, in Fiscal Year 2001, HMOs were given responsibility for all therapy visits; prior to that time HMOs were only responsible for the first 20 visits. If the trend analysis is not adjusted for this benefit change, the HMO trend from Fiscal Year 2000 to Fiscal Year 2001 would be overstated by the cost of therapy visits over the prior maximum of 20 per year. We also made adjustments to account for differences and changes in the population mix.

Table 5 shows estimated Fee For Service per capita costs adjusted (to the extent possible) to be consistent with HMO benefits and with the population mix for all years set equal to the Fiscal Year 2000 HMO population by budget category. "Benefit adjusted" trend includes adjustments for benefits but not population mix.

Table 5
FFS Per Capita Cost and Trend
Population Mix Based on FY 2000 HMO Mix
Normalized

Year	Benefit Adjusted	Benefit Adjusted Trend[1]	Normalized[2]	Normalized Trend	Difference in Trend
FY 1997	$2,282		$2,003		
FY 1998	$2,530	10.9%	$2,224	11.0%	(0.1)%
FY 1999	$2,800	10.7%	$2,569	15.5%	(4.8)%
FY 2000	$2,920	4.3%	$2,759	7.4%	(3.1)%
FY 1997 – FY 1999 Avg		10.8%		13.3%	(2.5)%
FY 1998 – FY 2000 Avg		7.4%		11.4%	(4.0)%

[1] Calculation shown in Appendix 4.A.
[2] Calculation shown in Appendix 4.B.

Our estimate shown above (which was normalized for population mix and benefits) of a 13.3% average annual increase in per capita costs between Fiscal Years 1997 and 1999 is almost double HCPF's estimate of 7.1%, which was not adjusted for benefits or population mix (see Table 4). Only some of the difference is caused by the benefit differentials; a significant part of this difference is due to population mix, primarily caused by more Aid to the Needy Disabled and Aid to the Blind (AND/AB) clients enrolled in HMOs in more recent years. This difference shows the importance of adjusting for population mix and benefits when examining cost trends.

Historical Per Capita Costs and Trends (Cont'd)

Recommendation No. 1:

The Department of Health Care Policy and Financing should adjust Fee For Service data to HMO benefits and hold the population steady at a given year when comparing per capita costs and trends. The Department should create reports which remove FFS expenses that are not covered HMO benefits from the FFS per capita costs by using detailed claims data. In addition, the Department should identify and adjust for benefit changes within the HMO benefit package. In this way, annual trend is calculated based on the same weights each year.

Department of Health Care Policy and Financing Response:

Agree. The Department believes that compliance with this recommendation could be resource intensive. To thoroughly adjust for the differences in benefits and enrollment between managed care and fee-for-service requires more detailed claims and eligibility data than are presently readily available in the Medicaid Management Information System (MMIS). The Department is working to develop this database in order to be able to more accurately make the required comparisons. This is currently being tested and the production date is indeterminate at this time.

The Department will work to incorporate maternity payments, payments for institutional clients and wrap around payments for federally qualified health centers into the on-line payment and tracking in the MMIS. This production is indeterminate at this time. As issues arise in this regard, the Department will keep the Joint Budget Committee and their staff informed. In the meantime, the Department will continue to manually process this information and will get on a routine quarterly reporting schedule for the Budget Office in order to permit better tracking and projection of expenditures beginning July 2001.

HEALTH MAINTENANCE ORGANIZATION PER CAPITA COSTS AND TRENDS

The observed increases in average per capita costs from year to year can mask real underlying trends. For example, an HMO that is rapidly increasing its AND/AB population will have large average per capita cost increases because it is enrolling proportionally more high cost members. Another example is an HMO that, through its selection of good obstetricians and pre-natal programs, enrolls more pregnant women. The HMO's unadjusted per capita medical costs will be higher because it will have more births. It is necessary to remove these factors in order to be able to understand and measure the true per capita costs and trends. This process of removing the impact of such items is referred to as "normalization".

Normalizing per capita costs includes adjusting for differences and changes over time in the following factors:

- Overall population mix (AND, AFDC, etc.);

- Demographic characteristics;
- Health status of the population (e.g., changes in the risk adjustment scores);
- Benefits; and
- Birth rates (per 1,000 women ages 14 to 44) from year to year.

The analysis documented in this report normalizes the data to the extent possible. The degree of normalization depends on the level of detail available. Due to data limitations, we were not able to adjust for demographic characteristics beyond the level of the budget level population splits, the retroactive eligibility and HMO waiting periods, third party recoveries, or refined benefit differences and changes over time. However, working within the limits of the readily available data, we have adjusted the HMO and FFS per capita cost estimates as follows:

- Population mix changes based on the budget level population splits (OAP-A, OAP-B, AND/AB, AFDC-A, AFDC-C/BCKC-C, FC, BC-A, Aliens, QMB and OAPSO); *population mix adjustment*.
- A rough estimate of birth rates for the HMO population only. We did not have access to data on the number of births but indirectly estimated their impact by using data on maternity payments; *maternity adjustment*. FFS budget information did not provide the data needed to adjust the calculation for births.
- Health status changes: We adjusted HMO payments to what they would have been had there been no change in the HMO and Fee For Service risk scores over the time period; *risk score adjustment*.

The impact of each of these adjustments is described in the following sections. A more complete normalization would require starting with detailed claims and eligibility data. Claims analysis is generally resource intensive and thus expensive. It is likely that such an analysis would not change the general conclusions outlined in this report.

A simple illustration of the normalization process is shown in Appendix 8.

Population Mix Adjustment

It is critical to normalize medical cost data to a constant population mix (OAP, AND, AFDC, etc.) to make a valid comparison of HMO and FFS per capita costs over time. This is done by segmenting the data according to population cost characteristics and then developing per capita estimates for each segment. For example, the average annual cost of an AFDC client is significantly lower than that of an AND/AB client. Furthermore, the per capita costs of AFDC beneficiaries are significantly higher in the retro-active eligibility period compared to subsequent periods. The retro-active eligibility period is the period of time when a member has become eligible for Medicaid but is not yet known to the Medicaid agency and so cannot join an HMO. The better the segmentation of the overall population (total Medicaid) into cohorts or subcategories (OAP-A, OAP-B, AND, AB, AFDC, etc.) the more accurately it reflects true expected cost differences, and the better the normalization. Our population mix adjustment was limited to the population categories used by HCPF, specifically the population categories included in the budget.

Historical Per Capita Costs and Trends (Cont'd)

In Table 6 below, unadjusted observed average per capita costs and trends for Fiscal Year 1998 through Fiscal Year 2000 are compared to an estimate of data normalized for population mix. The normalized results are based on the Fiscal Year 2000 population mix.

Table 6
Comparison of Average HMO Per Capita Cost and Trend
Observed to Partially Normalized for Budget Level Population Case Mix

Year	Observed[1]	Observed Trend	Normalized[2]	Normalized Trend	Difference in Trend
FY 1998	$2,043		$2,214		
FY 1999	$2,421	18.5%	$2,439	10.1%	8.4%
FY 2000	$2,710	11.9%	$2,710	11.2%	.7%
Average		15.2%		10.6%	4.6%

Source: [1] Provided by HCPF; see Appendix 5.
[2] Calculation shown in Appendix 1.

Table 6 shows that the normalized HMO trend, when adjusted to keep the population mix constant for all years, averaged about 10.6% over the three-year time period of Fiscal Year 1998 through Fiscal Year 2000. The observed (or un-normalized) trend was 15.2% during the same period.

The driver of the higher observed trend is the growth in the AND/AB population from 12.4% of the total HMO population in Fiscal Year 1998 to 17.6% in Fiscal Year 1999. The per capita payment rates for the AND/AB populations are over two times the average per capita cost of the AFDC population.

To better understand the differences in trends and costs between HMOs and the FFS program the Department should develop management reports that provide more detailed breakouts of the eligible populations. For the AFDC (AFDC, Baby Care/Kid Care and Aliens) and foster care (FC) populations the most critical breaks are age and gender. For OAP populations, the distinguishing features are not only age and gender but Medicare status and institutionalized status. AND/AB (disabled and blind) is similar to OAP. In Table 7 we outline the recommended population breaks. These breaks are based on expected differences in morbidity for a definable population. If one holds the population case mix constant for both the HMO and FFS programs at the Table 7 level of detail, one will have a meaningful comparison of average HMO and FFS costs and trends.

Historical Per Capita Costs and Trends (Cont'd)

Table 7
Suggested Population Breakouts for FFS and HMO Forecasting

Budget Category	Age	Sex [3]	Medicare Status	Institutional-ized	Retro+HMO Wait Period[2]	Geographic
OAP-SO	Under 65/ 65+	U	Medicaid Only/Duals	Yes/No	Yes/No	Denver/Non Metro
OAP A/B	Under 65	U	Medicaid Only/Duals	Yes/No	Yes/No	Denver/Non Metro
OAP A/B	65-69	U	Medicaid Only/Duals	Yes/No	Yes/No	Denver/Non Metro
OAP A/B	70-74	U	Medicaid Only/Duals	Yes/No	Yes/No	Denver/Non Metro
OAP A/B	75-79	U	Medicaid Only/Duals	Yes/No	Yes/No	Denver/Non Metro
OAP A/B	80+	U	Medicaid Only/Duals	Yes/No	Yes/No	Denver/Non Metro
AND/AB	Newborns	U	Medicaid Only/Duals	Yes/No	Yes/No	Denver/Non Metro
AND/AB	1-2	U	Medicaid Only/Duals	Yes/No	Yes/No	Denver/Non Metro
AND/AB	2-13	U	Medicaid Only/Duals	Yes/No	Yes/No	Denver/Non Metro
AND/AB	14-18	M/F	Medicaid Only/Duals	Yes/No	Yes/No	Denver/Non Metro
AND/AB	19-44	M/F	Medicaid Only/Duals	Yes/No	Yes/No	Denver/Non Metro
AND/AB	45-64	M/F	Medicaid Only/Duals	Yes/No	Yes/No	Denver/Non Metro
AFDC/BCA	Newborns	U	N/A	N/A	Yes/No	Denver/Non Metro
AFDC/BCA	1-2	U	N/A	N/A	Yes/No	Denver/Non Metro
AFDC/BCA	3-13	U	N/A	N/A	Yes/No	Denver/Non Metro
AFDC/BCA	14-20	M/F	N/A	N/A	Yes/No	Denver/Non Metro
AFDC/BCA	21-44	M/F	N/A	N/A	Yes/No	Denver/Non Metro
AFDC/BCA	45+	U	N/A	N/A	Yes/No	Denver/Non Metro
FC	Newborns	U	N/A	N/A	Yes/No	Denver/Non Metro
FC	1-2	U	N/A	N/A	Yes/No	Denver/Non Metro
FC	3-13	U	N/A	N/A	Yes/No	Denver/Non Metro
FC	14-20	U	N/A	N/A	Yes/No	Denver/Non Metro
QMBs[1]	All	U	N/A	N/A	Yes/No	Denver/Non Metro
Deliveries	All	F	N/A	N/A	Yes/No	Denver/Non Metro

[1] QMBs do not exist in the HMO population.

[2] The retroactive eligibility period is the period of time prior to Medicaid eligibility determination. The HMO wait period is the time between the Medicaid eligibility determination and the time at which the eligible enrolls with an HMO or PCPP program.

[3] U means unisex, or both genders

For all population categories, it is also important to distinguish between the cost during retroactive and HMO waiting period costs and the costs thereafter (HMO capitations exclude retroactive and waiting period costs). In addition, we recommend recognition of geographic cost differences to reflect, at a minimum, Denver area versus rest of State costs. The State should consider additional geographic breaks such as Denver, Non-Metro-East, Non-Metro-West, Non-Metro-North and Non-Metro-South.

Historical Per Capita Costs and Trends (Cont'd)

Recommendation No. 2:

The Department of Health Care Policy and Financing should improve its comparisons of HMO and Fee For Service cost trends by developing management reports based on detailed breakouts as follows:

1. Population as described in Table 7 of this report;
2. Costs during current, retroactive, and waiting periods; and
3. Geographic location of services/beneficiaries.

The Department should use the data from these breakouts to compare per capita costs and trends over time.

Department of Health Care Policy and Financing Response:

> **Agree.** The Department agrees with the recommendation with some reservations. Additional reporting may explain some of the variation in cost between HMO and FFS cost trends. Some normalization will begin in August 2001. The Department supports enhanced reporting for the purpose of drawing more readily understandable correlations between the HMO and FFS expenditure environments. While the Department will work to enhance its capabilities in this regard, with full normalization implementation by August 2003, it is essential to note that this capability will be built incrementally over time and will be resource intensive.

Maternity Adjustment

We normalized the HMO expenditures for birth rates by eliminating the supplemental payments to HMOs for maternity services. The maternity supplemental payments were not uniform from year to year; in other words, they have a trend of their own. In pulling out the maternity payments completely we have removed any impact those payments have on trend.

Table 8 shows the HMO per capita costs and trends adjusted to remove the maternity payments and normalized to a constant population mix. We observed a dramatic increase in the dollar amount of the maternity payment between Fiscal Year 1998 and Fiscal Year 1999, with a relatively small increase in the underlying population. Therefore, the normalized rates and trend also changed dramatically (the normalized year-by-year trend in Table 8 is significantly different than Table 6).

Historical Per Capita Costs and Trends (Cont'd)

Table 8
Comparison of Average HMO Per Capita Cost and Trend
Observed to Partially Normalized (and Excluding Maternity)
Annual Per Capita without Maternity

Year	Observed	Observed Trend	Normalized[1]	Normalized Trend	Difference in Trend
FY 1998	$2,043		$2,045		
FY 1999	$2,421	18.5%	$2,121	3.8%	14.8%
FY 2000	$2,710	11.9%	$2,448	15.4%	(3.5%)
Average		15.2%		9.4%	5.8%

[1] Calculation in Appendix 2.

As discussed earlier (see Table 6), adjusting the observed trend for population mix drops the true trend from 15.2% per year to 10.6%. Now, after the maternity adjustment, the "true" HMO trend over the three-year period is 9.4% per year.

According to HCPF staff, for Fiscal Years 1998 and 1999 the Department used estimates to allocate delivery payments across eligibility categories because it did not have data regarding the actual expenditures by category (see Appendix 5, Labor and Delivery Payments line items). In reviewing the detailed payment information supporting these amounts, we observed very large payments in July of each year. This raises questions about whether the payments are correctly allocated to the "right" fiscal year and eligibility category. The assignment of the maternity dates of service should be investigated to determine if the change between Fiscal Years 1998 and 1999 is correct. We believe that this is absolutely essential for HMO rate setting and budget forecasts. HCPF anticipates using a more detailed manual payment tracking system that will allow maternity costs to be tracked to exact date of service and category of assistance.

Recommendation No. 3:

The Department of Health Care Policy and Financing should investigate whether maternity payments for Fiscal Years 1998 and 1999 have been assigned to the appropriate fiscal year based on the date the medical service was incurred by the member. In addition, for calculating and comparing HMO and FFS cost trends, the Department should adjust HMO data to account for changes in birth.

Department of Health Care Policy and Financing Response:

> **Agree.** The Department has completed an analysis of maternity expenditures demonstrating the year that it was recorded in the management report and the fiscal year it was incurred by the member. This report also identifies the category of eligibility that the client was in at date of birth. The Department will continue to perform similar work effective July 2001.
>
> The Department agrees that changes in birth rates will affect trend and that trend measurements and comparisons between populations may need to be restated with a

normalized birth rate. The Department believes that birth rates should not only be normalized between years but also normalized to fee-for-service. This will result in improved comparability comparisons by August 2002.

Health Status Adjustment

Risk adjustment is an attempt to better predict the health care costs of a given population. Rates may be adjusted based on the age, gender, or eligibility category of a population. The supplemental maternity payment is also a form of risk adjustment. HCPF has elected to adjust HMO payment rates based on the Medicaid category of eligibility and the number of maternity cases (through the lump sum maternity payment), and the use of a health status adjustment model developed by Dr. Richard Kronick of the University of California at San Diego.

The health status model "predicts" the relative cost of individuals and assigns a risk score based on the diagnosis codes shown on historical claims experience as well as the individual's age and gender. The weight or payment for each member is the sum of the applicable categories. For example, if the per member per month rate for a 15 year old male is $50 and the rate for asthma is $300, the total rate for a 15 year old male with asthma would be $350 per month.

From Fiscal Year 1998 to Fiscal Year 2000 the overall risk score for HMOs decreased from 1.06 to 1.05 while average Fee For Service risk scores increased from 1.00 to 1.04. Therefore, the capitation payments to the HMOs also declined since the payment rate is based on the relationship between the HMO risk score and the FFS risk score. Table 9 below compares the observed per capita costs to per capita costs normalized and adjusted to exclude the impact of maternity payments and risk scores. The adjustment shown below for risk scores (i.e., assuming the risk score for the HMOs had been the same each year) shows that the real HMO trend has been about 11.9% (or 3.3 percentage points lower than the observed trend).

Table 9
Comparison of Average HMO Per Capita Cost and Trend
Observed to Partially Normalized for Budget Level Population Case Mix, Excluding Maternity & Impact of Risk Adjustment

Year	Observed	Trend	Without Risk Normalized[1]	Trend	Difference in Trend
FY 1998	$2,043		$1,934		
FY1999	$2,421	18.5%	$2,053	6.1%	12.4%
FY 2000	$2,710	11.9%	$2,423	18.0%	(6.1)%
Average		15.2%		11.9%	3.3%

[1] Calculation shown in Appendix 3.

Normalizing data to adjust for differences in health status allows for a more meaningful comparison of HMO and FFS trends.

Recommendation No. 4:

Historical Per Capita Costs and Trends (Cont'd)

The Department of Health Care Policy and Financing should improve its analysis of trend differences between FFS and HMO by normalizing all years to a constant HMO and FFS risk score.

Department of Health Care Policy and Financing Response:

> **Agree.** The Department agrees to improve its analysis of trend issues as recommended effective July 2001.

COMPARISON OF FEE FOR SERVICE AND HEALTH MAINTENANCE ORGANIZATION PER CAPITA COSTS

Under federal law, the maximum a state can pay a Medicaid HMO is 100% of the Fee For Service equivalent costs. In other words, HMOs cannot be capitated at an amount higher than the State would have expected to pay for the same members under the FFS program. This 100% Fee For Service equivalent cost is called the Upper Payment Limit or UPL. Colorado statute, in Section 26-4-124, C.R.S., states that the Department of Health Care Policy and Financing shall "assure that capitation payments [to HMOs] amount to no more than 95% of the amount paid under the Medicaid fee-for-service structure for an actuarially similar population."

In establishing its HMO rates, HCPF uses historic FFS costs, projected forward, to establish a UPL. The Department then calculates 95% of the UPL as the average HMO payment. For example, HCPF used actual FFS data from Fiscal Years 1997 through 1999 and projected forward, with some adjustments, to form the basis of the HMO rates for Fiscal Year 2001.

The difficulty in evaluating the actual experience against the statutory 95% limit for any given year is that actual FFS costs are compared to HMO rates set using predicted costs. In other words, at the time the HMO rates are set, they are based on a projection of the FFS costs. The projection of Fee For Service cost relies on a number of assumptions regarding health care cost trends, programmatic changes, changes in provider reimbursement, etc. It is highly unlikely one could accurately predict all these variables. In addition, the aggregate HMO costs depend upon the actual population mix, the birth rate, and the aggregate risk score. Any or all of these could be different than assumed in the rate setting process.

Historical Per Capita Costs and Trends (Cont'd)

HCPF's comparison of per capita costs for HMOs and Fee For Service is shown in Table 10 below.

Table 10
Comparison of Historical HMO and FFS Per Capita Costs
As Calculated by HCPF

Fiscal Year	HMO Per Capita[1]	FFS Per Capita[1]	HMO as % of FFS[1]
FY 1995	$1,960	$2,007	97.66%
FY 1996	$1,857	$2,286	81.22%
FY 1997	$1,873	$2,563	73.08%
FY 1998	$2,024	$2,848	71.06%
FY 1999	$2,315	$2,938	78.79%

Note: The costs are not adjusted for HMO and FFS differences in case mix (i.e. variations in numbers of persons in each category of aid), or factors such as duration and retroactive eligibility. These variables must be accounted for to make the populations and experience comparable. Accounting for these variables may have a significant effect on the "HMO as a % of FFS".

Source: [1] HCPF response to JBC, P. 14.

HCPF's calculations are incorrect because they do not normalize the Fee For Service and HMO per capita costs for population mix and do not include adjustments to account for birth rates and health status differences between the populations. Our estimates, calculated as described throughout this chapter and shown in Table 11 below, are substantially higher.

Table 11
Comparison of Historical HMO and FFS Per Capita Costs Adjusted to Consistent Benefits and Population Mix

Year	FFS Normalized [1]	HMO Normalized [2]	HMO/FFS
FY 1998	$2,224	$2,214	99.5%
FY 1999	$2,569	$2,439	94.9%
FY 2000	$2,759	$2,710	98.2%
Three-year Average			97.5%

Source: [1] From Table 5.
[2] From Table 6.

Our calculations show that, over the past three years, HMO rates have averaged 97.5% of FFS costs, or 2.5 percentage points higher than the statutory limit of 95%. However, as noted earlier, our ability to normalize the data was limited by the lack of readily available detailed information from the Department. We urge the Department to more fully normalize its data for all future calculations.

Historical Per Capita Costs and Trends (Cont'd)

The comparison of Fee For Service costs to HMO costs raises some important policy questions for the State. If the ratio continues above 95%, several options for managing HMO costs should be considered, including:

- Changing the statute to coincide with the federal 100% limit. Although raising the allowable HMO costs would reduce or eliminate the savings of managed care, the preventive care emphasis offered by HMOs could remain valuable for the Medicaid population.
- Changing the rate setting approach to hold back a small percentage of the HMO rate and then retroactively adjusting the rates, if necessary. For example, the Department could set HMO rates initially to pay 92% of FFS costs, then adjust the payments at year end, as needed, to ensure the 95% limit is not exceeded.

Regardless of the approach, the need to ensure compliance with federal and state payment limits requires the Department to implement an improved method for analyzing costs and trends. To facilitate this improvement, the Department needs more detailed information.

Recommendation No. 5:

The Department of Health Care Policy and Financing should carefully monitor compliance with statutory limits on HMO rates. If the ratio of HMO rates to Fee For Service costs continues to exceed the 95% statutory limit, the Department should recommend policy alternatives to the General Assembly.

Department of Health Care Policy and Financing Response:

> **Agree.** The Department will use normalization to monitor compliance effective August 2002.

IV. Risk Adjustment

Risk adjustment is an attempt to reimburse HMOs based on the relative health status of their members. Risk adjustment does not determine the aggregate HMO rates; it is used to allocate the rate to each HMO. Therefore, risk adjustment by itself should have no effect on average HMO rates.

The JBC specifically asked HCPF to analyze its risk adjustment process and address the potential incentives for an HMO to over-assess risk. HCPF's response described the risk adjustment process. Colorado uses the Disability Payment System developed by Dr. Kronick of the University of San Diego at California to assign individual members into risk categories based on the average expected costs for people with particular diagnoses. The risk scores also take into account age and gender. The HMOs are paid based on the average risk score of the members who had historically been in the HMO.

As discussed in HCPF's report, the possibility exists that the HMOs will either under-report or over-report data used to assign member risk scores. Under-reporting generally occurs at the beginning of the risk adjustment program when HMOs are still refining their encounter collection and submission processes. HCPF reviews HMO encounter data for members who were in FFS the previous year to determine whether HMO encounter data was complete. Through Fiscal Year 2000, if encounter data was deemed incomplete, HCPF adjusted the HMO risk score to attempt to eliminate the under-reporting.

Starting in Fiscal Year 2001, HCPF implemented an over-reporting adjustment. In a manner similar to the under-reporting analysis, HCPF compared HMO encounter data for members who had been in FFS the previous year. To the extent an individual's chronic conditions *materialized* while in the HMO (and did not exist the previous year when in the Fee For Service program), the HMO risk score was adjusted to remove the perceived over-reporting. HCPF reported that over-reporting occurred in two eligibility categories – AFDC-A and AND/AB – while under-reporting occurred only in the AFDC-C category.

Although we believe it is generally difficult for an HMO to over-report in a systematic way, it is possible. HCPF's analysis of this potential issue appears sound and the Department has instituted processes to correct the problem in the rates.

For the past four years, HCPF has used Fiscal Year 1995 data to assign members into disability categories and Fiscal Year 1996 data to develop the weights or expected payment relativity for each category. HCPF should consider updating the calculation of the relative weights.

Currently, HCPF updates the HMO risk scores semi-annually based on historical data (usually 24 months old). Because of the lag between the experience used to develop the HMO risk score and the payment period, it is possible that the payments made to each HMO will not reflect the true health status for each HMO's members. For example, if the HMO population significantly changes between the experience period and the rating period, there is a reasonable probability that there could be some mismatch between HMO revenue and actual HMO health care costs. There is also the risk that an HMO with a high or low average risk score grows disproportionately faster than other HMOs or the Fee For Service program. Until the risk scores are updated to

Risk Adjustment (Cont'd)

recognize the differences in member growth, it's possible that the HMOs will be over- or under-compensated for risk.

Recommendation No. 6:

The Department of Health Care Policy and Financing should update the data used in the risk adjustment model to use the most current data available and reduce the risk of changes in health status that are not reflected in the risk scores.

Department of Health Care Policy and Financing Response:

> **Agree.** The Department has contracted for implementation, January 2002, of the new Chronic Diagnostic Payment System (CDPS) developed by Dr. Richard Kronick. As part of the contract, relative resource utilization will be based on new cost data from claims. The Department believes that the relative resource utilization values should be updated every three to five years to reflect significant changes in treatment patterns for various chronic conditions. However, it should be noted that updates more frequent than three to five years make historical data less comparable over time for trending purposes.

V. Supplemental Payments

One of the major areas of concern identified by the JBC was payments made to HMOs in addition to the monthly capitation payments. These supplemental payments were of significant size – about $32.0 million out of $251.8 million in total HMO payments in Fiscal Year 2000 and $30.5 million out of $176.8 million in total HMO payments in Fiscal Year 1999. Specifically, the JBC asked how these payments are allocated by FFS categorical eligibility groups and included in rates.

HCPF's report describes each of the components of the supplemental payments. Virtually all the supplemental payments go to fund the global maternity payment and the FQHC cost settlement as shown in Table 12 below.

Table 12
Value of Supplemental Payments

	FY 1999	FY 2000
Labor and Delivery Payments	$22,562,000	$24,372,000
FQHC Cost Settlements	6,443,000	6,652,000
Flippers	969,000	–
Guaranteed Enrollment	446,000	665,000
Other	37,000	3,518,000[1]
Total	$30,457,000	$35,207,000

Source: Data provided by HCPF. See Appendix 5.

[1] Includes $3,523,000 Rocky Mountain HMO retroactive adjustments.

Following are brief explanations of the items shown in the above table. For a more complete description please see HCPF's report.

- **Labor and Delivery Payments:** HMOs receive a lump sum payment for each child birth delivery which covers the cost of the delivery (facility and professional fees).
- **Federally Qualified Health Center (FQHC) Cost Settlements:** FQHCs are health care facilities certified by the U.S. Department of Health and Human Services which may either be free-standing or affiliated with a hospital. Services provided by FQHCs include the following: physician, physician assistant, nurse practitioner, nurse-midwife, licensed psychologist, licensed social worker, and vaccines. Services are provided in outpatient settings only, including a patient's place of residence. According to HCPF staff, FQHCs must be reimbursed at 100% of reasonable costs. FQHC reasonable cost is usually significantly more than HMOs are willing to pay for FQHC or physician-like services. If FQHC FFS claims are included in the claim base used to set HMO rates, and an HMO uses FQHCs less than expected, the HMO will be overpaid (this is because HMOs pay private physicians less than the FQHC cost settlement for these services). To remedy this, HCPF only includes in the HMO capitation rates the expected HMO contractual reimbursement for a FQHC encounter. Then, when an HMO utilizes an FQHC, they must submit encounter data to HCPF to be reimbursed for the difference between the

Supplemental Payments (Cont'd)

rate assumed in the HMO rate development and the FQHC's cost settlement per encounter.

- **Flippers:** These are supplemental payments made for Medicaid HMO members that received their Medicaid Authorization Cards listing an HMO (and so were eligible to receive benefits from the HMO), yet due to missing enrollment information were absent from the fiscal agent's system until some later date. The manual flipper payment compensates the HMO for the period of time prior to receiving payments from the fiscal agent.
- **Guaranteed Enrollment:** To encourage Medicaid eligibles to choose HMOs, the State offers six months of guaranteed enrollment in an HMO. This means that if a person loses his or her eligibility for Medicaid in less than six months from the time of enrollment in an HMO, membership in the HMO can continue for the remainder of the six months. Currently, the fiscal agent's system does not have the programming to support the automation of this payment, so the payment from the time a person leaves Medicaid to the end of the six-month period is paid manually. With the passage of House Bill 01-1343, this option is discontinued as of July 1, 2001.
- **Other:** Other manual payments include: partial month payments, payments for institutionalized members, individual rates for extremely high cost members and other non-standard payments to HMOs.

HCPF has described efforts to automate and to better track these payments on pages 23 and 24 of the Department's report. The essential points are listed below:

- **Automation of Delivery and FQHC Payments:** The new fiscal agent's information system has the ability to process and properly document non-capitation payments to HMOs. Delivery and FQHC payments are contingent on HMOs submitting encounter data in an exact format. Implementation has been delayed until the system stabilizes and until HMOs are ready to submit encounters in the prescribed format.
- **Tracking System:** In September 2000, a relational database was designed to track and report offline (manual) payments. The programming of the database was completed in October 2000. This database represents a stop gap solution until the payments can be fully automated. In addition, HCPF (together with HMOs) has developed a standardized form for the HMO to submit manual payment requests.

In Section VI of this report, **Budget Reconciliation and Data Management**, we describe a system for capturing data and creating the reports. The Department should ensure that this system uses an automated process with appropriate components and adequate detail to track eligibility and claims so that the Department can not only set budgets and HMO rates, but also understand and monitor supplemental payments and take actions to respond to evolving trends.

Supplemental Payments (Cont'd)

Recommendation No. 7:

The Department of Health Care Policy and Financing should work to establish the database and process described in Section VI of the report, and include all eligibility and claims/encounter data in this database.

Department of Health Care Policy and Financing:

> **Agree.** The Department agrees and is developing a specific data mart for the purposes of managed care rate setting and fee-for-service financial analysis. This production date is indeterminate at this time. The Department will keep the General Assembly informed of its progress and any issues raised in the process.

VI. Budget Reconciliation and Data Management

One issue of considerable concern to the Joint Budget Committee was the Department's ability to reconcile rate-setting information with the budget. The reason for this concern is that while budget discrepancies for health care services costs as a whole have been relatively small in terms of percentage variance, the total dollar differences are significant. The following table, prepared by Joint Budget Committee staff, compares the Department's original appropriations for health care services with final expenditures, after all supplementals, for Fiscal Years 1997 through 2000.

Table 13
Comparison of Health Care Services Costs
Appropriation to Actual Expenditures
Fiscal Years 1997 through 2000

Fiscal Year	Original Appropriation	Final Expenditures	$ Difference	% Difference
1997	$1,110,674,594	$1,064,181,686	$(46,492,908)	(4.2)%
1998	$1,154,154,849	$1,128,636,024	$(25,518,825)	(2.2)%
1999	$1,146,280,182	$1,197,781,592	$51,501,410	4.5%
2000	$1,227,549,532	$1,324,660,367	$97,110,835	7.9%

Source: Analysis performed by JBC analyst.

The table shows that, in the in the recent past, the Department has both overestimated and underestimated total Medicaid expenditures by significant dollar amounts. Given current budgetary constraints, a $50 million swing in Medicaid appropriations can ripple throughout the entire state budget.

Both the budget and rate setting processes are essentially about projecting future costs. However, in its report to the JBC, the Department noted that the processes are independent and have different purposes. Department staff annually reconcile aggregate data used for setting rates with the data used for forecasting the budget. However, the reconciliation prepared by the Department for its report to the JBC (see P. 12 of HCPF's report to the JBC) shows that rate calculation amounts within service categories vary from budgeted amounts by anywhere from less than 1% (for laboratory and x-ray expenditures) to over 13% (for emergency transportation) and that the basic categories differ between rate-setting and budgeting. Reconciling at the more detailed level will help improve both budgeting and rate setting.

The Medicaid budget is large and complex. It can be influenced by numerous external factors – enrollment, federal mandates, changes in health care costs (e.g., maternity, drugs), etc. While forecasting the Medicaid budget is difficult, we believe there are opportunities for improvement that should help increase the accuracy of the estimating process. First, the Department should perform the basic task of reconciling budget data to rate data. All data should reconcile to the expenditures recorded on the State's accounting system. Reconciliation will not only provide a check on the data, but will also highlight potential errors. Second, the Department needs to establish a methodology for data use among HCPF divisions. This requires defining the overall Medicaid population into many more categories to reflect the unique risk characteristics of each

population. Finally, the Department needs to use the information to track, analyze, and explain cost trends and variances.

Improving its data management and data analysis will result in a better ability to forecast budgets and explain variances. The benefits to the State are substantial, including:

- Ability to track data over time and identify trends.
- Ability to identify potential problems (utilization, cost, etc.) in time to address them in the budget forecast and effectively manage the trend.
- Availability of consistent information at the *most common denominator level* for all departments to use as needed.
- Information by risk group and medical expense drivers (utilization and unit cost) in enough detail to project forward and reflect different growth rates in populations, demographic groups, specific medical expense categories, etc.

Below is a summary of the high level categories that would be required to provide an adequate understanding of the data needed to set rates and forecast the budget.

Inpatient Utilization Definitions: Key measurements are admissions per thousand members per year, days per thousand members per year, and average length of stay (ALOS). The inpatient utilization statistics can be categorized by admission type, such as medical, surgical, and mental health. In addition, it is common for Intensive Care Unit, Cardiac Care Unit, and Neonate Intensive Care Unit inpatient days to be identified separately.

Ambulatory Utilization Definitions: Developing utilization statistics for ambulatory services (non-inpatient services) is more complicated than for inpatient services since standard "groupings" are not yet widely used by the private sector. Therefore, revenue codes and/or Current Procedural Terminology (CPT) codes are generally used. The Health Care Financing Administration (HCFA) has recently changed its reimbursement for Medicare outpatient facility services to the Ambulatory Payment Classification (APC) methodology. Within the next few years this system of classifying outpatient encounters may become widespread.

For outpatient (facility), key measurements of ambulatory utilization are:

- *Outpatient Facility:* Facility expenses only for visits per thousand members per year including emergency room visits, outpatient surgery, lab procedure, radiology procedure, observation, and all other.
- *Physician:* Encounters per thousand identified as either Primary Care Physician (PCP) or Specialist for inpatient facility, outpatient facility, office, and other.

Pharmacy Utilization Definitions: Pharmacy utilization statistics should be tracked by generic vs. brand, retail vs. mail order, and formulary vs. non-formulary (if one exists), to the extent

possible. Rebates should be assigned to population categories. The basic unit of utilization measurement for pharmacy is number of prescriptions filled per 1,000 members per year.

Other Services: Other services include durable medical Equipment (DME), home health care, and emergency transportation. There are generally specific procedure or place of service codes to identify these services.

HMO Data: As a greater proportion of the Medicaid population enrolls in HMOs, it will become more difficult to use the FFS experience to set rates. Therefore, the Department will need to obtain detailed claims and eligibility data from the HMOs to use for rate setting. The best way for HCPF to develop a database of HMO utilization and cost statistics would be for the HMOs to report detailed membership and claims data and capitations which can be categorized in the same way as FFS. An alternative method would be to require the HMOs to provide financial data in a prescribed format, such as that shown in Table 14. The HMO would submit a separate report for every category identified in Table 7. The Department is already working to establish a process for HMOs to submit encounter data beginning in Fiscal Year 2002.

Budget Reconciliation and Data Management
(Cont'd)

Table 14
State of Colorado Financial Guide for Reporting Medicaid Rate Cell Grouping Costs
Service Category Information

Service Cost Category	Type of Utilization	Utilization per 1,000[1]	Incurred Unit Cost	PMPM
Inpatient Facility				
Medical/Surgical	Days/Admits			
Obstetrics	Days/Admits			
ICU/NICU	Days/Admits			
MH/SA	Days/Admits			
Outpatient Facility				
Emergency Room	Visits			
Surgical	Visits			
Radiology	Visits			
Laboratory	Visits			
Other	Visits			
Physician				
Primary Care				
Inpatient Facility	Encounters			
Outpatient Facility	Encounters			
Office	Encounters			
Other	Encounters			
Specialist				
Inpatient Facility	Encounters			
Outpatient Facility	Encounters			
Office	Encounters			
Other	Encounters			
DME	Items			
Home Health	Visits			
Transportation:	Trips			
Emergency	Trips			
Non-Emergency				
Prescription Drugs (Non-AIDS):				
Generic	Prescriptions			
Brand	Prescriptions			
Dental	Visits			
Other	Procedures			
Capitations:				
PCP	Varies			
Laboratory	Varies			
MH/SA	Varies			
Total				
Prescription Drug AIDS Carve-Outs:				

Budget Reconciliation and Data Management
(Cont'd)

	Generic	Prescriptions
	Brand	Prescriptions
[1]	Inpatient services should include admissions and days per 1,000 and ALOS amounts.	

The processes and definitions described in this section are typically used by HMOs. Additional detail on these categories is included in Appendix 6.

Recommendation No. 8:

The Department of Health Care Policy and Financing should begin summarizing historical data in more detail. In addition to the membership categories suggested in Table 7 of this report, the Department should develop reports to organize data so key historical data can be monitored and used in the budget and HMO rate setting processes. The Department should consider building into its data collection processes the information necessary to identify outpatient encounters using the APC methodology. Appendix 6 specifies categories for reporting data needed to set rates and budgets.

Department of Health Care Policy and Financing:

> **Agree.** The Department will investigate this recommendation further and work to ascertain whether there would be a material gain from implementing the recommendations. However, this recommendation relies on the data base development from Recommendation No. 1, which is indeterminate at this time. The Department appreciates the guidance related to unit activity measurement items provided in Table 14 and will start gathering information to allow for this additional reporting.

Appendix 1
Summary of Per Capita HMO Cost Calculation and Trends
Normalized for Population Mix to FY00 HMO Enrollment

Year	FY 00 HMO Distribution	FY 98 HMO Per Capita	FY 99 HMO Per Capita	FY 00 HMO Per Capita	Annualized Trend
OAPA	5.7%	$2,306	$2,226	$4,151	34.2%
OAPB	2.0%	4,500	6,603	7,891	32.4%
AND/AB	18.0%	4,796	4,897	6,082	12.6%
AFDCA	11.4%	2,496	2,962	3,200	13.2%
AFDCC/BCC	58.8%	1,085	1,145	1,089	0.2%
FC	0.9%	1,449	1,261	1,577	4.3%
BCA	1.5%	8,219	13,678	11,202	16.7%
Aliens	0.0%	4,863	22,683	1,746	-40.1%
QMB	0.0%	3,792	2,605	1,777	-31.5%
OAPSO	1.6%	4,189	4,136	1,964	-31.5%
Total/Avg	**100.0%**	**2,214**	**2,439**	**2,710**	**10.6%**
Trend			**10.1%**	**11.2%**	

Notes

Source of Data is the HMO Expenditures reconciliation prepared by the Department of Health Care Policy an
Per Capita costs include capitations and all manual payment adjustments.

Methodology

The above table demonstrates the HMO per capitas normalized for population mix.
The population mix adjustment is performed by fixing the enrollment distribution at the FY00 HMO distributio
By re-weighting the per capitas according to the FY00 mix, we remove some of the impact of
population mix changes.

Key

OAPA = Old Age Pensioners aged 65 years or older
OAPB = Old Age Pensioners under age 65
OAPSO = Old Age Pensioners - State Only program
AND/AB = Aid to the Needy Disabled and Aid to the Blind
AFDCA = Aid to Families with Dependent Children - Adult beneficiaries
AFDCC = Aid to Families with Dependent Children - Child beneficiaries
BCC = Baby Care - Child beneficiaries
FC = Foster Care
BCA = Baby Care - Adult beneficiaries
Aliens = Non-Residents
QMB = Qualified Medicare Beneficiaries
See Appendix 7 for descriptions of eligibility categories.

Appendix 2
Summary of Per Capita HMO Cost Calculation and Trends
Maternity Payments Removed
Normalized for Population Mix to FY00 HMO Enrollment

Year	FY 00 HMO Distribution	FY 98 HMO Per Capita	FY 99 HMO Per Capita	FY 00 HMO Per Capita	Annualized Trend
OAPA	5.7%	$2,306	$2,226	$4,151	34.2%
OAPB	2.0%	4,500	6,603	7,891	32.4%
AND/AB	18.0%	4,796	4,897	6,082	12.6%
AFDCA	11.4%	1,836	1,693	2,054	5.8%
AFDCC/BCC	58.8%	1,083	1,145	1,089	0.3%
FC	0.9%	1,449	1,261	1,577	4.3%
BCA	1.5%	2,173	2,475	2,657	10.6%
Aliens	0.0%	4,863	22,683	1,746	-40.1%
QMB	0.0%	3,792	2,605	1,777	-31.5%
OAPSO	1.6%	4,189	4,136	1,964	-31.5%
Total/Avg	**100.0%**	**2,045**	**2,121**	**2,448**	**9.4%**
Trend			**3.8%**	**15.4%**	

Notes
Source of Data is the HMO Expenditures reconciliation prepared by HCPF.
Per Capita costs include capitations and all manual payment adjustments except for delivery payments.

Methodology
The above table demonstrates the HMO per capitas normalized for population mix and maternity.
The population mix adjustment is performed by fixing the enrollment distribution at the FY00 HMO distribution.
By re-weighting the per capitas according to the FY00 mix, we remove the impact of population mix changes.

Key
OAPA = Old Age Pensioners aged 65 years or older
OAPB = Old Age Pensioners under age 65
OAPSO = Old Age Pensioners - State Only program
AND/AB = Aid to the Needy Disabled and Aid to the Blind
AFDCA = Aid to Families with Dependent Children - Adult beneficiaries
AFDCC = Aid to Families with Dependent Children - Child beneficiaries
BCC = Baby Care - Child beneficiaries
FC = Foster Care
BCA = Baby Care - Adult beneficiaries
Aliens = Non-Residents
QMB = Qualified Medicare Beneficiaries
See Appendix 7 for descriptions of eligibility categories.

Appendix 3
Summary of Per Capita HMO Cost Calculation and Trends
Maternity Payments Removed
Normalized for Population Mix to FY00 HMO Enrollment
Adjusted to FFS Average Health Status in Each Year

Year	FY 00 HMO Distribution	FY 98 HMO Per Capita	FY 99 HMO Per Capita	FY 00 HMO Per Capita	Annualized Trend
OAPA	5.7%	$2,306	$2,226	$4,151	34.2%
OAPB	2.0%	4,500	6,603	7,891	32.4%
AND/AB	18.0%	4,134	4,526	6,099	21.5%
AFDCA	11.4%	1,912	1,729	1,956	1.1%
AFDCC/BCC	58.8%	1,083	1,134	1,061	-1.0%
FC	0.9%	1,449	1,261	1,577	4.3%
BCA	1.5%	2,173	2,475	2,657	10.6%
Aliens	0.0%	4,863	22,683	1,746	-40.1%
QMB	0.0%	3,792	2,605	1,777	-31.5%
OAPSO	1.6%	4,189	4,136	1,964	-31.5%
Total/Avg	**100.0%**	**1,934**	**2,053**	**2,423**	**11.9%**
FFS Risk Score		1.00	1.01	1.04	**1.8%**
HMO Risk Score		1.06	1.04	1.05	**-0.8%**
Impact to HMOs		6.3%	3.5%	1.0%	**-2.6%**
Trend			**6.1%**	**18.0%**	

Notes
Source of Data is the HMO Expenditures reconciliation prepared by HCPF.
Per Capita costs include capitations and all manual payment adjustments except for delivery payments.

Methodology
The impact of risk scores is removed by normalizing the per capita cost in each year to the FFS risk in that year.
This is accomplished by dividing the actual per capita cost by the ratio of the HMO to the FFS risk score.

Key
OAPA = Old Age Pensioners aged 65 years or older
OAPB = Old Age Pensioners under age 65
OAPSO = Old Age Pensioners - State Only program
AND/AB = Aid to the Needy Disabled and Aid to the Blind
AFDCA = Aid to Families with Dependent Children - Adult beneficiaries
AFDCC = Aid to Families with Dependent Children - Child beneficiaries
BCC = Baby Care - Child beneficiaries
FC = Foster Care
BCA = Baby Care - Adult beneficiaries
Aliens = Non-Residents
QMB = Qualified Medicare Beneficiaries
See Appendix 7 for descriptions of eligibility categories.

Appendix 4.A
Development of Fee For Service Equivalent Per Capita Expenses
Adjusted to HMO Benefit Levels

Aggregate Acute Care Expenditures

FY	OAPA	OAPB	AND/AB	AFDCA	AFDCC/BCC	FC	BCA	Aliens	QMB	OAPSO	Total
FY 97	71,567,974	20,145,636	218,758,300	94,639,624	123,735,626	30,808,093	33,530,384	15,914,965	1,447,282	8,489,180	619,037,064
FY 98	77,714,391	23,787,637	235,189,637	79,378,937	139,757,023	35,110,584	28,485,414	18,101,218	1,311,458	8,861,038	647,697,337
FY 99	84,599,949	28,002,020	241,464,738	79,044,969	149,575,725	20,449,963	38,598,746	22,341,537	1,412,989	9,693,135	675,183,771
FY 00	95,922,505	33,545,293	261,813,968	90,283,783	161,573,199	24,196,138	44,581,799	29,886,821	1,962,191	9,092,298	752,857,995

Source: 11/00 FY02 Budget Request pages I-237 to I-240

SUBTRACT
HMO Expenditures

FY	OAPA	OAPB	AND/AB	AFDCA	AFDCC/BCC	FC	BCA	Aliens	QMB	OAPSO	Total
FY 97	8,181,769	3,628,898	45,292,750	29,388,327	40,806,987	237,857	6,990,221	1,755	322,333	-	134,850,897
FY 98	10,761,419	5,312,421	47,727,444	23,428,716	53,848,496	326,016	3,943,543	3,417	111,584	-	145,463,056
FY 99	10,780,277	9,859,417	66,091,307	23,348,359	48,639,593	527,544	10,451,959	117	5,829	-	169,704,402
FY 00	21,869,256	13,986,007	99,239,097	32,858,180	59,556,840	1,349,557	14,242,473	153	5,143	-	243,106,706

Source: 11/00 FY02 Budget Request pages I-237 to I-240

SUBTRACT
Mental Health Capitations & Under 21 Psych

FY	OAPA	OAPB	AND/AB	AFDCA	AFDCC/BCC	FC	BCA	Aliens	QMB	OAPSO	Total
FY 97	1,305,072	1,259,655	13,915,690	1,573,453	5,685,986	12,940,249	249,888	18	992	-	36,931,003
FY 98	1,461,575	1,455,825	16,159,790	1,409,306	5,703,607	15,248,335	257,728	31	1,990	-	41,698,187
FY 99	2,238	-	1,609	2,014	522	5,333	-	-	-	-	11,716
FY 00	-	-	-	-	-	-	-	-	-	-	-

Source: 11/00 FY02 Budget Request pages I-237 to I-240

SUBTRACT
County Transportation

FY	OAPA	OAPB	AND/AB	AFDCA	AFDCC/BCC	FC	BCA	Aliens	QMB	OAPSO	Total
FY 97	458,354	106,131	1,692,220	87,191	449,804	474,481					3,268,181
FY 98	591,469	126,566	2,018,195	77,352	574,508	615,419					4,003,509
FY 99	814,476	205,699	2,635,103	90,619	712,573	739,900	7,086	44			5,205,500
FY 00	975,756	271,566	3,168,193	127,111	947,684	1,148,154	15,122	70			6,653,656

Source: 11/00 FY02 Budget Request pages I-237 to I-240

Appendix 4.A (Cont'd)
Development of Fee For Service Equivalent Per Capita Expenses
Adjusted to HMO Benefit Levels

ADD
Home Health

FY	OAPA	OAPB	AND/AB	AFDCA	AFDCC/BCC	FC	BCA	Aliens	QMB	OAPSO	Total
FY 97	6,650,952	1,806,790	21,918,870	134,600	379,033	757,685	13,234	-	3,025	-	31,664,188
FY 98	10,352,167	2,098,180	27,658,971	182,346	477,011	1,217,667	27,000	-	12,347	-	42,025,689
FY 99	14,606,158	2,360,972	32,125,343	146,404	574,456	1,751,290	21,936	135		680	51,587,374
FY 00	15,268,318	2,539,951	35,968,077	157,370	570,319	2,238,696	30,478	538			56,773,747

Source: 11/00 FY02 Budget Request I-223 to I-226.

SUBTRACT
Mental Health, DSH, GME, Therapies, Ambulocab, EPSDT Dental

FY	OAPA	OAPB	AND/AB	AFDCA	AFDCC/BCC	FC	BCA	Aliens	QMB	OAPSO	Total
FY 97	2,200,817	644,575	11,675,863	2,071,640	4,172,757	2,617,364	739,617	210,325	14,895	270,438	24,618,291
FY 98	2,329,770	697,635	12,539,548	1,706,771	4,229,296	2,916,820	652,582	216,112	14,452	270,981	25,573,967
FY 99	3,192,406	856,869	14,166,324	2,046,760	5,873,969	3,145,922	910,256	389,212	24,514	349,567	30,955,799
FY 00	3,219,250	921,448	13,510,271	2,109,373	5,923,008	3,598,175	981,141	520,664	34,094	327,876	31,145,301

Source: Estimates based on FY01 HMO Rate Development data supplied by the Division of Managed Care.

FFS Eligibles

FY	OAPA	OAPB	AND/AB	AFDCA	AFDCC/BCC	FC	BCA	Aliens	QMB	OAPSO	Total
FY 97	29,373	3,650	41,216	22,564	73,582	9,253	4,347	5,322	5,807	2,577	197,691
FY 98	29,442	3,659	40,627	17,942	66,560	10,006	4,047	5,821	6,303	2,548	186,955
FY 99	29,384	3,706	37,180	16,343	67,801	10,993	4,624	6,979	6,994	2,027	186,031
FY 00	28,996	3,547	33,367	15,480	63,900	11,414	4,393	10,698	7,645	1,652	181,092

FFS Adjusted Per Capitas

FY	OAPA	OAPB	AND/AB	AFDCA	AFDCC/BCC	FC	BCA	Aliens	QMB	OAPSO	Total
FY 97	2,249	4,469	4,079	2,732	992	1,653	5,881	2,951	192	3,189	2,282
FY 98	2,477	5,000	4,539	2,951	1,140	1,721	5,846	3,072	190	3,371	2,530
FY 99	2,873	5,246	5,129	3,286	1,400	1,618	5,893	3,145	198	4,610	2,800
FY 00	2,936	5,894	5,450	3,575	1,498	1,782	6,686	2,745	252	5,305	2,920

Appendix 4.B
Summary of Per Capita Fee For Service Per Capita Cost Calculation
Normalized for Population Mix to FY00 HMO Enrollment

Year	FY 00 HMO Distribution	FY 97 FFS Per Capita	FY 98 FFS Per Capita	FY 99 FFS Per Capita	FY 00 FFS Per Capita	Annualized Trend
OAPA	5.7%	$2,249	$2,477	$2,873	$2,936	9.3%
OAPB	2.0%	$4,469	$5,000	$5,246	$5,894	9.7%
AND/AB	18.0%	$4,079	$4,539	$5,129	$5,450	10.1%
AFDCA	11.4%	$2,732	$2,951	$3,286	$3,575	9.4%
AFDCC/BCC	58.8%	$992	$1,140	$1,400	$1,498	14.7%
FC	0.9%	$1,653	$1,721	$1,618	$1,782	2.5%
BCA	1.5%	$5,881	$5,846	$5,893	$6,686	4.4%
Aliens	0.0%	$2,951	$3,072	$3,145	$2,745	-2.4%
QMB	0.0%	$192	$190	$198	$252	9.5%
OAPSO	1.6%	$3,189	$3,371	$4,610	$5,305	18.5%
Total/Avg	**100.0%**	**$2,003**	**$2,224**	**$2,569**	**$2,759**	**11.3%**
Trend			**11.0%**	**15.5%**	**7.4%**	

Adjustments that could increase the % FFS	**Adjustments that could decrease the % FFS**
Detailed population mix & Birth Rates	Detailed population mix (especially Medicare Status) & Birth Rates
Benefit Refinements - deductions from FFS to match HMO benefits	
Retroactive & HMO wait period	
Third Party Liability	

Methodology
The above table demonstrates the FFS per capitas normalized for population mix.
The population mix adjustment is performed by fixing the enrollment distribution at the FY00 HMO distribution.
By re-weighting the per capitas according to the FY00 mix, we remove the impact of population mix changes.

Key
OAPA = Old Age Pensioners aged 65 years or older
OAPB = Old Age Pensioners under age 65
OAPSO = Old Age Pensioners - State Only program
AND/AB = Aid to the Needy Disabled and Aid to the Blind
AFDCA = Aid to Families with Dependent Children - Adult beneficiaries
AFDCC = Aid to Families with Dependent Children - Child beneficiaries
BCC = Baby Care - Child beneficiaries
FC = Foster Care
BCA = Baby Care - Adult beneficiaries
Aliens = Non-Residents
QMB = Qualified Medicare Beneficiaries
See Appendix 7 for descriptions of elgibility categories.

Appendix 4.C
Comparison of Fee For Service to HMO Costs
Normalized for Population Mix to FY00 HMO Enrollment

Year	FY 00 HMO Distribution	FY 98 FFS Per Capita	FY 99 FFS Per Capita	FY 00 FFS Per Capita	FY98-FY00 FFS Per Capita	% FFS
OAPA	5.7%	$2,477	$2,873	$2,936	$2,762	104.8%
OAPB	2.0%	$5,000	$5,246	$5,894	$5,380	117.7%
AND/AB	18.0%	$4,539	$5,129	$5,450	$5,039	104.3%
AFDCA	11.4%	$2,951	$3,286	$3,575	$3,271	88.2%
AFDCC/BCC	58.8%	$1,140	$1,400	$1,498	$1,346	82.2%
FC	0.9%	$1,721	$1,618	$1,782	$1,707	83.7%
BCA	1.5%	$5,846	$5,893	$6,686	$6,142	179.6%
Aliens	0.0%	$3,072	$3,145	$2,745	$2,987	326.8%
QMB	0.0%	$190	$198	$252	$213	1279.3%
OAPSO	1.6%	$3,371	$4,610	$5,305	$4,429	77.4%
Total/Avg	**100.0%**	**$2,224**	**$2,569**	**$2,759**	**$2,518**	**97.5%**
HMO Per Capita		**$2,214**	**$2,439**	**$2,710**	**$2,454**	
% of FFS		**99.5%**	**94.9%**	**98.2%**	**97.5%**	
FFS Trend			**15.5%**	**7.4%**	**11.4%**	

Methodology

The above table demonstrates the FFS per capitas normalized for population mix.
The population mix adjustment is performed by fixing the enrollment distribution at the FY00 HMO distribution.
By re-weighting the per capitas according to the FY00 mix, we remove the impact of population mix changes.

Key

OAPA = Old Age Pensioners aged 65 years or older
OAPB = Old Age Pensioners under age 65
OAPSO = Old Age Pensioners - State Only program
AND/AB = Aid to the Needy Disabled and Aid to the Blind
AFDCA = Aid to Families with Dependent Children - Adult beneficiaries
AFDCC = Aid to Families with Dependent Children - Child beneficiaries
BCC = Baby Care - Child beneficiaries
FC = Foster Care
BCA = Baby Care - Adult beneficiaries
Aliens = Non-Residents
QMB = Qualified Medicare Beneficiaries
See Appendix 7 for descriptions of eligibility categories.

Appendix 5 - Exhibit A
Department of Health Care Policy and Financing HMO Reconciliation
FY 98 HMO Reconciliation

Item	OAP A	OAP B	AND/AB	AFDC A	AFDC/BC Children	FC	BCA	Non Citizens	QMB/ SLMB	OAP State Only	Grand Total	Budget Total
FY 97-98 Actual Expenditure in COFRS												145,463,056
MMIS Capitations	9,370,228	4,548,295	42,314,623	21,521,477	47,419,395	288,473	3,599,048	9,492	122,120	2,654,840	131,847,990	
Flipper payment	146,182	70,957	660,138	335,750	739,776	4,500	56,148	148	1,905	41,417	2,056,921	
Labor and Delivery and Newborn payments				6,660,011	78,499		6,660,011				13,398,521	
CHPR Flipper Settlement	16,314	7,919	73,670	37,469	82,557	502	6,266	17	213	4,622	229,548	
FQHC cost settlement	41,007	19,905	185,181	94,184	207,520	1,262	15,750	42	534	11,618	577,003	
Manual payment of PCPP Incentive	11,990	5,820	54,145	27,539	60,677	369	4,605	12	156	3,397	168,711	
HMO rate correction										73,924	73,924	
HMO reimbursement for coverage of Protease Inhibitors (AIDS drugs) prior to inclusion in capitation			115,676								115,676	
HMO Reimbursement for fee for service provided to non-enrollees				18,869							18,869	
HMO Reimbursement for fee for service provided to non-enrollees	9,682	4,700	43,724	22,238	48,998	298	3,719	10	126	2,743	136,238	
MHASA rate adjustment	11,815	5,735	53,357	27,138	59,794	364	4,538	12	154	3,348	166,254	
Guaranteed Eligibility				30,192							30,192	
Recoupment of PCP Incentive overpayment	-5,960	-2,893	-26,912	-13,688	-30,159	-183	-2,289	-6	-78	-1,688	-83,856	
Copay Reimbursement to RMHMO and Kaiser for members with commercial and Medicaid	5,372	1,336	11,691	14,865							33,264	
Total	9,606,630	4,661,772	43,485,291	28,776,042	48,667,057	295,585	10,347,797	9,726	125,131	2,794,221	148,769,254	145,463,056
Percent of Total Capitations	7%	3%	32%	16%	36%	0%	3%	0%	0%	2%	100%	
Average Monthly Enrollees	4,166	1,036	9,067	11,528	44,859	204	1,259	2	33	667	72,821	72,820
Percent of Total Enrollment	6%	1%	12%	16%	62%	0%	2%	0%	0%	1%	100%	
Average Annual Cost Per Enrollee	2,306	4,500	4,796	2,496	1,085	1,449	8,219	4,863	3,792	4,189	2,043	1,998

Appendix 5 - Exhibit B
Department of Health Care Policy and Financing HMO Reconciliation
FY99 HMO Reconciliation

Item	OAP A	OAP B	AND/AB	AFDC A	AFDC/BC Children	FC	BCA	Non Citizens	QMB/ SLMB	OAP State Only	Grand Total	Budget Total
FY 98-99 Actual Expenditure in COFRS												169,704,403
MMIS Capitations	9,926,618	9,011,413	59,530,096	14,285,076	46,273,288	476,274	2,365,616	21,526	7,417	4,403,639	146,300,963	
Flippers	65,733	59,673	394,202	94,594	306,417	3,154	15,665	143	49	29,160	968,791	
Labor and Delivery payments				11,280,986			11,280,986				22,561,973	
Payment for Newborns					33,654						33,654	
Guaranteed Eligibility	30,254	27,464	181,432	43,537	141,029	1,452	7,210	66	23	13,421	445,887	
Copay Reimbursement to RMHMO and Kaiser for members with commercial and Medicaid				639							639	
Recoupment from RMHMO for clients disenrolled when HMO left service area	-1,818	-1,651	-10,904	-2,617	-8,476	-87	-433	-4	-1	-807	-26,797	
Payment to RMHMO to reimburse pharmacy claims paid to non-enrollees	1,995	1,811	11,964	2,871	9,300	96	475	4	1	885	29,403	
FQHC cost settlement	437,143	396,839	2,621,552	629,078	2,037,757	20,974	104,176	948	327	193,925	6,442,718	
Total	10,459,924	9,495,550	62,728,343	26,334,165	48,792,969	501,862	13,773,695	22,683	7,815	4,640,225	176,757,230	169,704,403
Percent of Total Capitations	7%	6%	41%	10%	32%	0%	2%	0%	0%	3%	100%	
Average Monthly Enrollees	4,699	1,438	12,810	8,892	42,630	398	1,007	1	3	1,122	73,000	73,000
Percent of Total Enrollment	6%	2%	18%	12%	58%	1%	1%	0%	0%	2%	100%	
Average Annual Cost Per Enrollee	2,226	6,603	4,897	2,962	1,145	1,261	13,678	22,683	2,605	4,136	2,421	2,325

Appendix 5 - Exhibit C
Department of Health Care Policy and Financing HMO Reconciliation
FY00 HMO Reconciliation

Item	OAP A	OAP B	AND/AB	AFDC A	AFDC/BC Children	FC	BCA	Non Citizens	QMB/ SLMB	OAP State Only	Grand Total	Budget Total
FY 99-00 Actual Expenditure in COFRS as of October 27, 2000*												250,944,573
MMIS Capitations	20,990,424	13,631,537	96,752,204	20,794,403	56,666,693	1,264,644	3,608,073	1,663	5,077	2,851,807	216,566,526	
Kaiser Sanction by Quality Assurance for failure to respond to contract requirements	(552.46)	(358.78)	(2,546.50)	(547.31)	(1,491.46)	(33.29)	(94.96)	(0.04)	(0.13)	(75.06)	-5,700	
Labor and Delivery Global Payments				12,185,873			12,185,873				24,371,745	
Guaranteed Eligibility	64,474	41,871	297,184	63,872	174,057	3,884	11,083	5	16	8,760	665,205	
RMHMO rate adjustment due to MMIS inability to make a retroactive adjustment	341,498	221,775	1,574,084	338,309	921,924	20,575	58,701	27	83	46,397	3,523,372	
FQHC settlement payments (100% of cost)	644,751	418,712	2,971,882	638,730	1,740,598	38,845	110,827	51	156	87,597	6,652,149	
Total	22,040,595	14,313,535	101,592,808	34,020,639	59,501,781	1,327,916	15,974,461	1,746	5,331	2,994,486	251,773,298	250,944,573
Percent of Total Capitations	10%	6%	45%	10%	26%	1%	2%	0.001%	0%	1%	100%	
Average Monthly Enrollees	5,310	1,814	16,703	10,632	54,633	842	1,426	1	3	1,525	92,889	92,889
Percent of Total Enrollment	6%	2%	18%	11%	59%	1%	2%	0%	0%	2%	100%	
Average Annual Cost Per Enrollee	4,151	7,891	6,082	3,200	1,089	1,577	11,202	1,746	1,777	1,964	2,710.47	2,701.55
Total FY96-00												
Average Monthly Enrollees											799,480,852	809,933,400
Average Annual Cost Per Enrollee											370,426	370,425
											2,158	2,186
	77,043	23,112	246,537	85,000	277,355	12,000	15,000	15	100	34,268	With OAP-SO	W/O OAP-SO
Payment Pending for FY 99 - Flippers - Incurred But Not Reported - Based on settlement information from RMHMO - In the process of being calculated by information technology section - actual amount due in February 2001.(allocation by aid category based on the relationship in previous years)	38,522	11,556	123,269	42,500	138,678	6,000	7,500	8		17,134	385,165	368,031
Payment Pending for FY 00 - Flippers - Incurred But Not Reported - Based on settlement information from RMHMO - In the process of being calculated by information technology section - actual amount due in February 2001.(allocation by aid category based on the relationship in previous years)	38,522	11,556	123,269	42,500	138,678	6,000	7,500	8	50	17,134	385,215	368,081

Appendix 6
Recommended Method for Segmenting Health Care Utilization

The processes and definitions described in this section are typically used by HMOs. It is based on the assumption that payment transaction records for most medical services use completed HCFA 1500 and UB-92 claim forms. To the extent that the State uses its own claim forms or codes, the information provided in Appendix 6 would have to be modified for HCPF's coding.

Inpatient Utilization Definitions

The key measurements of inpatient utilization are:

- Admissions per thousand members per year
- Days per thousand members per year
- Average Length of Stay (ALOS)

Skilled Nursing Facility (SNF) admissions and days should be identified and removed before categorizing the remaining inpatient utilization.

The inpatient utilization statistics can be categorized into the following types of inpatient admissions based on DRGs:

- Medical
- Surgical
- Deliveries
- Complex Newborns
- Mental Health
- Substance Abuse
- Transplants

It is common for ICU/CCU (Intensive Care Unit and Cardiac Care Unit) and NICU (Neonate Intensive Care Unit) inpatient days to be identified separately in the utilization statistics. ICU/CCU and NICU days are identified using the following revenue (UB-92) codes:

- ICU Revenue codes 20x
- CCU Revenue codes 21x
- NICU Revenue codes 172-179

Exhibit B in Appendix 6 displays R&A's mapping of all payor DRGs to admission types. We understand that HCPF may use a different set of DRG codes and so this table may need to be customized for HCPF's use.

Ambulatory Utilization Definitions

The process for developing the utilization statistics for ambulatory services (non-inpatient services) is more complicated than for inpatient services since standard "groupings" such as DRG are not yet widely used by the private sector. Therefore, revenue codes and/or current procedural terminology (CPT) codes are generally used to categorize claim data. Revenue codes are used on UB-92 claim forms and help categorize the source of an expense. CPT codes (used on HCFA 1500 forms) are developed by the AMA and help define the procedures that physician or other health care professionals perform.

HCPF has recently changed its reimbursement for Medicare outpatient facility services to the Ambulatory Payment Classification (APC) methodology. It is possible that within the next few years this system of classifying outpatient encounters may become as widespread as the use of DRGs. We recommend that HCPF consider building into its data collection processes the information necessary to identify outpatient encounters using the APC methodology.

R&A typically measures outpatient (facility) utilization in 22 outpatient facility categories and 59 physician service categories. These categories are defined by ranges of revenue and/or CPT codes. The following key measurements of ambulatory utilization are:

Outpatient Facility

- Emergency Room Visits per thousand members per year (facility expenses only)
- Outpatient Surgery Visits per thousand members per year (facility expenses only)
- Lab Procedure per thousand (facility expenses only)
- Radiology Procedure per thousand (facility expenses only)
- Observation per thousand (facility expenses only)
- All Other (facility expenses only)

Exhibit C in Appendix 6 displays how outpatient facility claims can be mapped into the above categories using CPT and/or revenue codes.

Physician

Physician utilization is calculated as encounters per thousand.

- Primary Care Physician (PCP)
  - Inpatient facility
  - Outpatient facility
  - Office
  - Other

- Specialist
  - Inpatient facility
  - Outpatient facility
  - Office
  - Other

Exhibit D in Appendix 6 displays how physician claims can be mapped into the above categories using CPT codes.

Pharmacy Utilization Definitions

Tracking the cost of pharmacy services requires that several other cost factors be considered. Pharmacy utilization statistics should be tracked by generic vs. brand, retail vs. mail order and formulary v. non-formulary (if one exists), to the extent possible. Rebates should be assigned to the population categories listed in Table 8.

The basic unit of utilization measurement for pharmacy services is scripts (prescriptions filled) per 1000 members per year. A script is defined as one dispensing of a prescription by a pharmacy (retail or mail-order).

Other Services

Other services not included above include durable medical Equipment (DME) home health care, emergency transportation, etc. There are generally specific procedure or place of service codes to identify these services.

HMO Data

As a greater proportion of the Medicaid population enrolls in HMOs, it will become more difficult to use the FFS experience that is left to set rates. Therefore, the State will need to get detailed claims and eligibility data from the HMOs to use for rate setting.

The best way for HCPF to develop the database of HMO utilization and cost statistics would be for the HMOs to provide HCPF with detailed membership and claims data and capitations. HCPF can categorize this data into the same categories it uses for the FFS experience. An alternative method would be to require the HMOs to provide financial data in a prescribed format. Appendix 6, Exhibit A shows an example of a format that should be used. The HMO would submit a separate report for every category identified in Table 8.

Appendix 6 (Cont'd)

Appendix 6 - Exhibit A
State of Colorado Financial Guide for Reporting Medicaid Rate Cell Grouping Costs
Service Category Information

Service Cost Category	Type of Utilization	Utilization Per 1,000[1]	Incurred Unit Cost	PMPM
Inpatient Facility				
Medical/Surgical	Days/Admits			
Obstetrics	Days/Admits			
ICU/NICU	Days/Admits			
MH/SA	Days/Admits			
Outpatient Facility				
Emergency Room	Visits			
Surgical	Visits			
Radiology	Visits			
Laboratory	Visits			
Other	Visits			
Physician				
Primary Care				
Inpatient Facility	Encounters			
Outpatient Facility	Encounters			
Office	Encounters			
Other	Encounters			
Specialist				
Inpatient Facility	Encounters			
Outpatient Facility	Encounters			
Office	Encounters			
Other	Encounters			
DME	Items			
Home Health	Visits			
Transportation:	Trips			
Emergency	Trips			
Non-Emergency				
Prescription Drugs (Non-AIDS):				
Generic	Prescriptions			
Brand	Prescriptions			
Dental	Visits			
Other	Procedures			
Capitations:				
PCP	Varies			
Laboratory	Varies			
MH/SA	Varies			
Total				
Prescription Drug AIDS Carve-Outs:				
Generic	Prescriptions			
Brand	Prescriptions			

[1] Inpatient services should include admissions and days per 1,000 and ALOS amounts.

Appendix 7

Category of Aid Descriptions	
Category	**Description**
OAP-A (Old Age Pensioner – A)	Individuals eligible for federal Supplemental Security Income (SSI) who are age 65 and over.
OAP-B (Old Age Pensioner – B)	Disabled individuals eligible for federal SSI who are age 60 to 64.
OAP-SO (Old Age Pensioners – State Only)	Individuals age 60 to 64 not receiving SSI. They receive medical benefits through the state-authorized OAP Health and Medical Fund.
AND/AB (Aid to the Needy Disabled and Aid to the Blind)	Individuals determined to be permanently and totally disabled for a period of not less than one year, including those disabled due to blindness, and therefore eligible for SSI. Includes clients up to age 60.
AFDC-A (Aid to Families with Dependent Children – Adults)	The caretaker adult population for AFDC children.
AFDC-C (Aid to Families with Dependent Children – Children)	These are children eligible under Medicaid rules. Their income must be under the AFDC need standard and they must have resources under allowable limits.
BC-A (Baby Care – Adults)	Pregnant women who are under 133% of the federal poverty level during and just subsequent to their pregnancy.
BC-C (Baby Care – Children)	Children from birth to 6 years who meet income and resources limits.
Foster Care	Includes dependent or neglected children and juvenile offenders who have been removed from their homes and placed with a county department of social services.
Aliens	Includes certain legal aliens and undocumented aliens who meet the income and resource criteria of one of the other Medicaid categories, except for citizenship.
QMB (Qualified Medicare Beneficiaries)	Medicare-only clients whose income meets prescribed levels. Pays only for Medicare premiums, co-insurance, and deductibles.
Source: Compilation of data from the Department of Health Care Policy and Financing and the Joint Budget Committee.	

Appendix 8
Normalization of Membership to Calculate Trend

ILLUSTRATION 1
Calculation of Average Trend - Not Normalized to Same Membership

	HMO			FFS		
Year 1	A	B	Total	A	B	Total
Capitation Rate	$95.00	$285.00		$100.00	$300.00	
Membership Distribution	75%	25%	100%	50%	50%	100%
Average Capitation Rate			$ 142.50			$ 200.00
Year 2						
Trend	5%	8%		5%	8%	
Capitation Rate	$99.75	$307.80		$105.00	$324.00	
Membership Distribution	70%	30%	70%	55%	45%	55%
Average Capitation Rate			$ 162.17			$ 203.55
Increase in average rates			13.8%			1.8%

ILLUSTRATION 2
Calculation of Average Trend - Normalized to Year 1 HMO Membership

	HMO			FFS		
Year 1	A	B	Total	A	B	Total
Capitation Rate	$95.00	$285.00		$100.00	$300.00	
Membership Distribution	75%	25%	100%	75%	25%	100%
Average Capitation Rate			$ 142.50			$ 150.00
Year 2						
Trend	5%	8%		5%	8%	
Capitation Rate	$99.75	$307.80		$105.00	$324.00	
Membership Distribution	75%	25%	100%	75%	25%	100%
Average Capitation Rate			$ 151.76			$ 159.75
Increase in average rates			6.5%			6.5%

Notes To Appendix 8

Illustration 1

Illustration 1 shows the calculation of average trend for the HMO and FFS populations for two membership categories. Even though the trends for the HMO and FFS rates are equal, the changing distribution of membership results in very different changes in average costs (or trend).

Illustration 2

Illustration 2 does the calculation by first fixing the membership distribution to the year 1 HMO distribution. By normalizing the membership, the true trends, which are equal, result.

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