

HEDIS 2002
Health Plan Employer Data & Information Set
Evaluation of Quality of Care
Delivered to Colorado Medicaid Clients in 2001



State of Colorado

Department of Health Care Policy and Financing
Health Benefits Division
1575 Sherman Street
Denver, Colorado 80203
April 28, 2003

Table of Contents

EXECUTIVE SUMMARY	1
SUMMARY OF 2002 HEDIS COLORADO MEDICAID.....	7
OVERVIEW.....	ERROR! BOOKMARK NOT DEFINED.
UNDERSTANDING TABLES	ERROR! BOOKMARK NOT DEFINED.
SUMMARY TABLES	ERROR! BOOKMARK NOT DEFINED.
RESULT TABLES	ERROR! BOOKMARK NOT DEFINED.
I. CHILDHOOD IMMUNIZATION STATUS.....	ERROR! BOOKMARK NOT DEFINED.
II. ADOLESCENT IMMUNIZATION STATUS.....	ERROR! BOOKMARK NOT DEFINED.
III. ADULT’S ACCESS TO PREVENTIVE/AMBULATORY HEALTH SERVICES.....	ERROR! BOOKMARK NOT DEFINED.
IV. CHILDREN’S ACCESS TO PRIMARY CARE PROVIDERS	ERROR! BOOKMARK NOT DEFINED.
V. WELL CHILD VISITS IN THE FIRST 15 MONTHS OF LIFE	ERROR! BOOKMARK NOT DEFINED.
VI. WELL CHILD VISITS IN THE 3RD, 4TH, 5TH AND 6TH YEARS OF LIFE	ERROR! BOOKMARK NOT DEFINED.
VII. ADOLESCENT WELL CARE VISITS	ERROR! BOOKMARK NOT DEFINED.
VIII. INPATIENT UTILIZATION – GENERAL HOSPITAL CARE.....	ERROR! BOOKMARK NOT DEFINED.
IX. AMBULATORY CARE	ERROR! BOOKMARK NOT DEFINED.

Executive Summary

As part of a comprehensive quality improvement effort, the Colorado Department of Health Care Policy and Financing (Department) and its contracted Medicaid Managed Care Organizations calculate select Health Plan Employer Data and Information Set (HEDIS®)¹ measures. This reports identifies and summarizes care delivered to Colorado Medicaid clients in calendar year 2001 and as reported in 2002.

Plan Participation

In 2001, seven health plans participated in Colorado Medicaid managed care: Colorado Access (Access), Community Health Plan of the Rockies (CHPR), Kaiser Permanente (Kaiser), Rocky Mountain Health Plan (Rocky), and United HealthCare of Colorado (United), and the Department's two programs: Primary Care Physician Program (PCPP) and Unassigned Fee-for-Service (FFS). All plans used auditors approved by the National Committee for Quality Assurance (NCQA) that independently certified each health plan's measures. Health Service Advisory Group (HSAG), the Department's External Quality Review Organization, contracted with HEDISHelp to calculate the measures for the PCPP and the FFS populations.

Interpreting Results

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

Results are calculated retrospectively and reported for the following year. For this report, data was abstracted and calculated for members enrolled in Colorado Medicaid during the calendar year 2001, and are reported for the year 2002.

Despite these limitations, HEDIS measures enable the Department to make direct plan-to-plan comparisons on care delivered to clients. As evident in the results, each health plan has its own strengths and weaknesses and HEDIS results can be used to identify opportunities for performance improvement within each plan and across all plans. A summary of results for all HEDIS 2002 measures can be found at the end of this section.

Medicaid Benchmarking

Benchmarking is the process of identifying, sharing, and using knowledge of best practices among organizations. These benchmarks, calculated by NCQA, allow the Department to understand the extent of effectiveness of care, access and availability of care, and use of services in a Medicaid population. For each reported measure, 2001

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

HEDIS National Medicaid benchmarking rates are reported. Therefore, these benchmarks may be used as point of reference against which Colorado Medicaid results may be measured.

The goal in using benchmarks is to identify the magnitude of difference required to close a gap and to identify in what areas change is needed to achieve best performance. For example, Childhood Immunizations have been measured each year since 1998 and National benchmarks provide the trending needed to identify performance improvement. Yet two measures, Inpatient Utilization and Ambulatory Care, have not been measured in Colorado since 1998. By using national Medicaid benchmarks, this will assist Colorado to more adequately rate itself and identify areas of best performance or gaps in performance.

Results

1. Childhood Immunizations

Vaccines are among the greatest public health achievements of the 20th century. Immunizations can prevent disability and death from infectious diseases for individuals and can help control the spread of infections within communities.

Vaccines provide significant cost benefits. Three childhood vaccines—diphtheria, tetanus toxoids, and acellular pertussis vaccine (DTaP); measles, mumps, and rubella vaccine (MMR); and *Haemophilus influenzae* type b (Hib) vaccine—result in substantial direct medical savings for each dollar spent to vaccinate children against these diseases. Varicella vaccine saves roughly 90 cents in direct medical costs for every dollar invested. Consideration of indirect savings—prevention of work loss by parents, prevention of death, prevention of lost earnings due to disability—shows that vaccines routinely recommended for children are highly cost saving. Savings range from \$24 for every dollar spent on DTaP to \$2 for Hib vaccine.²

The Centers for Disease Control and Prevention (CDC) recommends immunizing children for ten preventable diseases.³ These include diphtheria, tetanus, acellular pertussis (DTaP); polio (IPV/OPV); measles, mumps, and rubella (MMR); *Haemophilus influenzae* type B (Hib); hepatitis B (hep B); and varicella-zoster vaccine (VZV). The Department and the health plans have a vested interest in the immunization status of children and are committed to improving rates of immunization. Colorado Medicaid participates in an immunization project with the Centers for Medicare and Medicaid Services (CMS), which requires that Colorado measure and report the HEDIS Combination 2 rates (which reports the rate of children who have received all the above immunizations on the proper schedule) to the Federal government as part of a National Childhood Immunization initiative.

Reported Childhood Immunization rates across all plans for Colorado Medicaid in 2002 are lower than previous years rates. This change is evident in a decline in both

² Healthy People 2010: http://www.healthypeople.gov/Document/HTML/Volume1/14Immunization.htm#_edn9.

³ Centers for Disease Control, National Immunization Program: www.cdc.gov/nip/acip.

Total Colorado and National Medicaid rates. As reported in the Department's 2001 HEDIS report, both the Total Colorado and National Medicaid rates were higher. This decrease in both Colorado and National Medicaid rates may reflect national vaccine shortages, although for some vaccines such as varicella, rates were higher than as reported in 2001.

As part of the Federal childhood immunization initiative, Colorado's goal is to increase the rate of Combination 2 in Colorado Medicaid children by 4 percent each year. Between 2001 and 2002, Combination 2 rates only improved by 2.6 percent, which is below the improvement goal set by Colorado. Colorado continues to lag behind national rates for Combination 2. The Total Colorado Combination 2 rate of 37.1% is below the 2001 National Medicaid benchmark of 46.7%, a 20 percent gap below the National rate.

2. Adolescent Immunizations

Adequate immunization is one of the most important preventive health services that can be provided for adolescents. The American Academy of Pediatrics recommends the following four vaccines for teenagers: measles, mumps, and rubella (MMR); hepatitis B (hep B); varicella-zoster vaccine (VZV); and tetanus-diphtheria vaccine (Td).⁴ According to the CDC, National Center for Infectious Diseases, the total number of new vaccine-preventable infections per year has been declining steadily since 1980. The greatest decline has happened among children and adolescents due to routine hepatitis B vaccination.⁵

Across all Colorado health plans, Adolescent Immunization rates for 2002 demonstrate continuous improvement. Total Colorado Medicaid rates for each immunization except for MMR, exceed National Medicaid benchmarking rates. This increase highlights and supports adequate access to preventive health services for Colorado Medicaid adolescent, including necessary immunizations.

3. Adult's Access to Preventive/Ambulatory Health Services

Coverage of routine medical services is a benefit under Colorado Medicaid and coverage of these services is an effective way to emphasize preventative healthcare. Although having Medicaid coverage by itself is not sufficient to eliminate access barriers, it is still an important factor influencing who receives recommended preventive services.

Colorado Medicaid rates are increasing annually for adult's access to preventive/ambulatory care services, as are National Medicaid rates. While Total Colorado Medicaid rates remain below National rates, all health plans in Colorado (except the Department's Fee-For-Service group) were above average in this measure when compared to one another. So, as overall rates continue to be below National Medicaid rates, health plans are meeting Department performance expectations for adult's access to preventive/ambulatory services.

⁴ Centers for Disease Control, National Immunization Program web site: <http://www.cdc.gov/nip/recs/teen-schedule.htm> .

⁵ Centers for Disease Control, National Center for Infectious diseases web site: <http://www.cdc.gov/ncidod/diseases/hepatitis/index.htm> .

4. Children's Access to Primary Care Providers

A usual source of primary care helps individuals and families clarify the nature of their health problems and can direct them to utilization of appropriate health services. Primary care for children emphasizes continuity of care, which implies that children will use their primary care provider over time for most of their health care needs. Advantages of primary care for children are that primary care providers deal with all common health needs and can coordinate health care services as needed, ensuring a "medical home" for children.

Coverage of routine medical and clinical preventive services is a benefit under Colorado Medicaid. Children are entitled to comprehensive benefits under the Early Periodic Screening, Diagnosis and Treatment (EPSDT) program. This Federal program ensures Medicaid children up to age 21 receive on-going preventative healthcare services such as immunizations, periodic well-care visits, and dental checks.

Total Colorado Medicaid rates are below National Medicaid rates for Children's Access to Primary Care Providers, demonstrating a consistent gap of 16 to 19 percent below National rates across each age group. While there is room for improvement to narrow the gap, Colorado Medicaid health plans are meeting Department performance expectations for children's access to primary care providers.

5. Well Child Visits in the First 15 Months of Life

The Colorado EPSDT program incorporates recommendations of comprehensive periodic well-child visits for children from national sources, such as the American Academy of Pediatrics. These periodic checkups provide opportunities to address the physical, emotional and social aspects of their health. They also provide opportunities for the primary care providers to detect physical, developmental, behavioral and emotional problems and provide early intervention and treatment, and utilize appropriate referrals to specialists. Providers have a greater chance of detecting and treating permanent physical defects prior to adolescence and adulthood if well-care visits are routinely maintained.

The HEDIS rate for Well Child Visits in the First 15 Months of Life counts the number of visits a child had to a provider up to age 15 months. For children who had 1 and up to 6 well-care visits to a provider, the Total Colorado Medicaid rate of 88.41% is above the National Medicaid rate of 87.45%. Colorado Medicaid health plans are exceeding Department and national performance expectations for well-child visits in the first 15 months of life.

The rate also measures the number of children with no ('None') identified visit to a provider. Having no visits to a provider indicate children aged less than 15 months are not receiving preventive well care, as any rate above zero percent indicates room for improvement. Both Total Colorado and National Medicaid rates are nearly identical (11.59% and 12.55% respectively). This indicated Colorado has fewer "None" visits as compared nationally but there is significant room to improve the no well-care visit rate.

6. Well Child Visits in the 3rd, 4th, 5th and 6th Years of Life

Colorado EPSDT benefits apply to children age 3 to 6. Periodic checkups provide opportunity to detect physical, developmental, behavioral, and emotional problems and provide early intervention and treatment, and utilize appropriate referrals to specialists. Providers have a greater chance of detecting and treating permanent physical defects prior to start of school and before adolescence and adulthood if well-care visits are routinely maintained.

The Total Colorado Medicaid rate of 44.55% is below the National Medicaid rate of 50.47%. This indicates children past the need for childhood immunizations and before school age are not accessing medical professionals as often as allowed by EPSDT benefits. There is room for performance improvement for children aged 3 through 6 to see providers for well care visits.

7. Adolescent Well Care Visits

Adolescence is period of profound change. More changes take place in anatomy, physiology, mental and emotional functioning, and social development during adolescence than in any other life stage except infancy. Issues faced by adolescents during this time range from injuries resulting in death to anti-social behaviors. Numerous national organizations, such as the American Academy of Pediatrics, recommend comprehensive annual well care visits to provide opportunity of addressing these changes and to avert negative health consequences. In Colorado, EPSDT benefits are available to adolescents up to the age of 21.

Adolescent well care in Colorado Medicaid is continually improving. Colorado Medicaid Adolescent visits were last reported in 1998 and at that time, less than 5% of eligible adolescents in the PCPP and FFS programs had a well care visit. This has significantly increased. In 2002, the Total Colorado Medicaid rate for all health plans is 27.6%, which is below the National Medicaid benchmark of 30.17%. The Department participated in an Adolescent Well-Care quality study to understand the breadth of adolescent well care in Colorado Medicaid and identify actions needed to improve rates. Adolescent Well Care Visit will again be reported in 2004.

8. Inpatient Utilization – General Hospital Care

In 1998, the Centers for Medicare and Medicaid Services (CMS) published estimates from states on the cost of hospital care from 1980 to 1998. The estimated average annual percent growth in cost hospital care for the nation was 10.2% while Colorado had 14.2% growth.⁶ Ohio had the lowest estimate of growth in hospital care costs with a reported 5.9%; Nevada had the highest with a reported 15.6%.

The HEDIS measure Inpatient Utilization – General Hospital Care reports on average discharges, days, and average length of stay of Medicaid clients in a hospital setting. The rate is per 1,000 member months in Medicaid. Total Colorado Medicaid rates for average length of stay at a hospital were lower for all groups except one when matched against 2001 National Medicaid rates. A decrease in length of stay is noted for the 10 to 19 year age group, signifying a drop of 42% in hospital stays for this age

⁶ CMS: <http://cms.hhs.gov/statistics/nhe/state-estimates-provider/mcaid20.asp> .

group between 2000 and 2002. Overall, Colorado Medicaid meets and exceeds performance expectations for average length of hospital stay.

9. Ambulatory Care

The HEDIS measure Ambulatory Care reports on visits in an outpatient setting, visits to an emergency room, and observations resulting in discharge.

Emergency Department

Emergency Departments may sometimes be used as a substitute for physician office/clinic encounters and may be reflective of the lack of a primary care provider or an unidentified barrier to access primary health care services. The top 10 diagnoses for Colorado Medicaid clients in the Department's Primary Care Physician Program and Fee-For-Service program seen in the emergency room⁷ are:

1. Otitis Media, Unspecified;
2. Upper Respiratory Infection (Acute);
3. Pyrexia Unknown Origin;
4. Acute Pharyngitis;
5. Abdominal Pain;
6. Unspecified Viral Infection;
7. Headache;
8. Nutritional Deficiencies related to Pregnancy;
9. Urinary Tract Infection; and
10. Other Non-specified Gastroenteritis and Colitis.

The Total Colorado Medicaid rate of emergency department was 47.3 visits per 1,000 member months and is above the National Medicaid rate of 43.6 visits per 1,000 member months. But between 2000 and 2002, the Total Colorado rate for Emergency Room visits increased 36 percent while National benchmarking rates have remained relatively stable. This indicates Colorado Medicaid clients continue to use the emergency department more than other states, and use the emergency department for diagnoses that could be addressed in the primary care setting.

Outpatient Visits

Outpatient visits encompass visits to hospital clinic for treatment of conditions that do not require an inpatient stay. Nationally, there appears to be an increasing trend in use of outpatient visits in Medicaid populations, which is reflective of the increase in Total Colorado Medicaid rates. While rates have risen overall, the Total Colorado Medicaid 2002 rate is below the National Medicaid rate for outpatient visits.

Ambulatory Surgery

As was seen in outpatient visits, there appears to be an increase in the use of ambulatory surgery procedures in Colorado Medicaid. The 2002 Colorado Medicaid rate of ambulatory surgery is 26 percent above the National Medicaid rate, indicating a large number of surgical procedures are being performed in the ambulatory care setting.

⁷ Based on claims paid by the Department of Health Care Policy & Financing between July and September 2002.

Summary of 2002 HEDIS Colorado Medicaid

2002 HEDIS Colorado Medicaid, Reporting Year 2001									
HEDIS Rates for All Health Plans									
HEDIS is a registered trademarked product of the National Committee for Quality Assurance									
HEDIS Measure	Access	CHPR	Kaiser	Rocky	United	PCPP	Fee-for-Service	Total HMO	Total Colorado Medicaid
Childhood Immunization Status Percent of children receiving immunizations by 2 years old									
4 Diphtheria, Tetanus, Pertussis	39.4%	39.4%	76.2%	75.7%	55.3%	57.9%	45.7%	55.3%	54.2%
	Below	Below	Above	Above	Average	Average	Below	Average	
1 Measles, Mumps, Rubella	77.9%	60.1%	92.9%	83.9%	72.5%	73.7%	58.4%	76.3%	72.9%
	Above	Below	Above	Above	Average	Average	Below	Above	
3 Polio Virus immunizations	47.7%	55.4%	85.2%	81.3%	65.5%	73.7%	54.3%	65.2%	64.8%
	Below	Below	Above	Above	Average	Average	Below	Average	
2 Haemophilus Influenzae Type B	46.0%	41.7%	86.7%	76.2%	53.7%	63.7%	48.9%	58.7%	57.9%
	Below	Below	Above	Above	Average	Above	Below	Average	
3 Hepatitis B immunizations	44.3%	46.1%	83.3%	74.2%	56.9%	69.8%	51.3%	58.9%	59.4%
	Below	Below	Above	Above	Average	Above	Below	Average	
1 Chicken Pox vaccines	76.4%	60.9%	92.4%	63.7%	67.5%	68.6%	52.6%	70.4%	67.1%
	Above	Below	Above	Average	Average	Average	Below	Above	
Combo 1 Rate -- 4 DTP or DTaP, 3 OPV or IPV, 1 MMR, 2 hepatitis B, and 1 Hib	31.4%	22.0%	66.2%	58.4%	41.6%	45.7%	33.8%	41.8%	41.1%
	Below	Below	Above	Above	Average	Average	Below	Average	
Combo 2 Rate -- 4 DTP or DTaP, 3 OPV or IPV, 1 MMR, 2 hepatitis B, 1 Hib, and VZV	30.4%	19.7%	66.2%	46.7%	40.4%	41.4%	29.2%	38.0%	37.1%
	Below	Below	Above	Above	Average	Average	Below	Average	
Adolescent Immunizations Percent of adolescents who received immunizations by 13 years old									
2 Measles, Mumps, Rubella	37.7%	38.3%	76.9%	52.3%	39.1%	58.9%	37.2%	45.8%	46.8%
	Below	Below	Above	Average	Average	Above	Below	Average	
1 Hepatitis B immunizations	22.9%	24.0%	67.3%	43.8%	28.1%	44.3%	29.9%	33.5%	35.1%
	Below	Below	Above	Above	Average	Above	Below	Average	
1 Chicken Pox vaccines	17.0%	13.0%	82.7%	21.9%	26.6%	26.0%	17.0%	25.2%	23.5%
	Below	Below	Above	Average	Average	Average	Below	Average	
Combo 1 -- MMR and Hepatitis B	21.2%	20.8%	61.5%	35.5%	26.6%	39.2%	26.3%	29.4%	30.9%
	Below	Below	Above	Average	Average	Above	Below	Average	
Combo 2 - MMR, Hepatitis B, and VZV	11.2%	7.1%	57.7%	14.1%	20.3%	18.0%	11.4%	16.8%	15.8%
	Below	Below	Above	Average	Average	Average	Below	Average	
Adult's Access to Preventive/Ambulatory Health Services									
Ages 20-44	71.9%	61.5%	87.8%	78.4%	62.2%	64.9%	16.8%	72.4%	54.0%
	Above	Above	Above	Above	Above	Above	Below	Above	
Ages 45-64	79.6%	61.0%	88.9%	85.7%	69.4%	69.8%	10.3%	79.0%	49.9%
	Above	Above	Above	Above	Above	Above	Below	Above	
Ages 65 and Above	77.8%	61.0%	90.8%	88.4%	71.2%	34.6%	6.4%	81.0%	24.2%
	Above	Above	Above	Above	Above	Above	Below	Above	
Children's Access to Primary Care Providers									
Age 12-24 Months	60.8%	83.9%	97.7%	91.4%	83.7%	85.7%	66.2%	71.4%	73.6%
	Below	Above	Above	Above	Above	Above	Below	Below	
Age 25 Months - 6 Years	53.1%	69.1%	86.5%	77.7%	61.6%	68.5%	41.7%	62.1%	60.6%
	Below	Above	Above	Above	Average	Above	Below	Above	
Age 7-11 Years	53.2%	74.7%	91.3%	82.0%	67.2%	73.7%	48.1%	63.8%	63.0%
	Below	Above	Above	Above	Average	Above	Below	Average	

2002 HEDIS Colorado Medicaid, Reporting Year 2001

HEDIS Rates for All Health Plans

HEDIS is a registered trademarked product of the National Committee for Quality Assurance

HEDIS Measure	Access	CHPR	Kaiser	Rocky	United	PCPP	Fee-for-Service	Total HMO	Total Colorado Medicaid
Well Child Visits in the First 15 Months of Life									
No Visits	26.5%	7.3%	0.9%	2.8%	8.0%	6.8%	16.3%	11.6%	11.6%
	Above	Below	Below	Below	Average	Below	Above	Average	
1 Visit	8.5%	9.7%	5.3%	4.9%	8.0%	3.2%	8.5%	7.0%	6.6%
	Average	Average	Average	Average	Average	Below	Average	Average	
2 Visits	6.1%	16.4%	7.0%	9.7%	11.0%	5.4%	7.8%	9.2%	8.2%
	Average	Above	Average	Average	Average	Below	Average	Average	
3 Visits	18.7%	20.0%	20.2%	14.8%	16.0%	6.3%	10.7%	17.4%	13.8%
	Above	Average	Average	Average	Average	Below	Below	Above	
4 Visits	17.5%	20.0%	30.7%	24.1%	18.0%	10.9%	9.2%	21.4%	16.9%
	Average	Average	Above	Above	Average	Below	Below	Above	
5 Visits	13.4%	11.5%	32.5%	24.1%	25.0%	18.0%	13.1%	19.6%	18.0%
	Below	Below	Above	Above	Average	Average	Below	Average	
6 or More Visits	9.2%	15.2%	3.5%	19.7%	14.0%	49.4%	34.3%	13.6%	25.0%
	Below	Below	Below	Below	Below	Above	Above	Below	
Well Child Visits in the 3rd, 4th, 5th & 6th Years of Life									
	44.3%	42.6%	55.2%	45.8%	37.0%	47.9%	37.7%	44.9%	44.6%
	Average	Average	Above	Average	Below	Average	Below	Average	
Adolescent Well-Care Visits									
	25.8%	22.9%	46.5%	27.1%	17.2%	35.5%	32.4%	27.2%	27.6%
	Average	Below	Above	Average	Below	Above	Above	Average	
Inpatient Utilization - General Hospital/Acute Care (Total)									
Discharges/1,000 Member Months	11.47	11.38	9.57	11.11	11.62	12.33	15.63	11.26	13.23
Days/1,000 Member Months	44.72	33.20	30.00	31.42	31.75	51.88	59.42	38.61	49.47
Average Length of Stay	3.90	2.92	3.13	2.83	2.73	4.21	3.80	3.43	3.74
Ambulatory Care (Total)									
Outpatient Visits/1,000 Member Months	262.50	195.69	353.60	393.35	157.14	300.56	169.00	279.47	238.61
Ambulatory Surgery Procedures/ 1,000 Member Months	2.85	3.84	3.58	6.96	3.14	10.27	5.59	3.88	5.74
Emergency Room Visits/ 1,000 Member Months	48.15	60.49	36.11	47.39	51.89	54.72	42.17	49.02	47.29
Observation Room Stays Resulting in Discharge/ 1,000 Member Months	2.08	3.81	4.28	2.36	2.74	3.36	4.21	2.56	3.38