State of Colorado

Department of Health Care Policy & Financing

Office of Medical Assistance

Quality Improvement Section

2006 HEDIS® Report

Health plan Employer Data & Information Set

Evaluation of Quality of Care
Delivered to Medicaid Clients in 2006

July 2007

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State of Colorado Department of Health Care Policy and Financing
1570 Grant Street Denver, Colorado 80203
July 2007

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Executive Summary

Background

The mission of the Colorado Department of Health Care Policy and Finance (the Department) is to improve access to cost-effective, quality health care services for Coloradans. To this end, the Department engages in activities to assess the quality of care delivered to the Colorado Medicaid population. The Health Plan Employer Data and Information Set (HEDIS®[1]) is a nationally recognized assessment of key measures of health care quality. Representatives from the Department and the managed care organizations (MCOs) that serve Colorado's Medicaid population chose the HEDIS® measures which were most appropriate for the Colorado Medicaid population and best address the Centers for Medicare and Medicaid (CMS) goals of quality, timeliness, and access to services for the Medicaid population.

In Colorado, Medicaid recipients could choose between five different health plans during the year of measurement. Members could choose from one of three managed care organizations, the Department-run Primary Care Physician Program (PCPP) or the Fee-for-Service (FFS) programs. HEDIS® is designed to measure the performance of managed care organizations, but Colorado Medicaid includes its non-managed FFS population in the measurement as well. In the measurement year, roughly 10% of Colorado Medicaid members were in PCPP, 20% were in one of the three MCOs, and the large majority of the Colorado Medicaid membership (70%) were in the non-managed care FFS program.

Methods

HEDIS® measures are collected nationally by both commercial and publicly funded health care plans according to the specific standards of the National Committee for Quality Assurance (NCQA). These rigorous standards produce reliable and verifiable results that can be compared from plan to plan across the nation. This report includes the national average for each measure, the national 90th percentile, and the Colorado Medicaid weighted average allowing the reader to compare the results across Colorado Medicaid health plans, as well as to compare the performance of the Colorado health plans to the national Medicaid average. Additionally, where possible, data from previous years is included to provide a picture of how Colorado Medicaid plans have performed over time.

The report is divided into three Dimensions of Care: Pediatric Access to Care and Preventive Care, Adult Access to Care and Preventive Care, and Chronic Disease Management. This approach to the analysis is designed to give the reader a whole picture of the quality of health care delivered to Colorado Medicaid clients, and to more easily identify approaches for improvement.

Major Findings & Implications

The following table summarizes how each plan performed within each dimension of care for the measures detailed in this report.

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

How the Plans Performed

Percentage of measures meeting or exceeding the national Medicaid average in each dimension			
	Dimension 1: Pediatric	**Dimension 2: Adult**	**Dimension 3: Chronic Disease**
Access (MCO)	0%	60%	85.7%
DHMC (MCO)	83.3%	20%	85.7%
RMHP (MCO)	85.7%	80%	100%
PCPP	22.2%	30%	28.6%
FFS	14.8%	10%	0%

The information in this table was calculated from the results of the HEDIS® measures found in the Summary Tables. Each measure was assigned to a Dimension of Care (for example, childhood and adolescent immunizations were assigned to the pediatric dimension of care). The measures at or above the national HEDIS® average were added together, then divided by the total number of measures assigned to that dimension of care that the plan participated in to obtain the percentage of measures meeting or exceeding the national Medicaid average in each dimension. The measures used to develop this table can be found in Appendix A.

Both Rocky Mountain Health Plan (RMHP) and Denver Health Managed Care (DHMC) performed well in the pediatric dimension of care, exceeding the national 90th percentile in several of the pediatric measures. RMHP met or exceeded the national Medicaid average for most measures across all dimensions of care. CO Access did not score at or above the national Medicaid HEDIS® average for any of the pediatric measures selected for 2006 reporting. Overall, MCOs are motivated to encourage their patients to come in for preventive care visits in order to reduce the higher costs associated with avoidable emergent or urgent care visits.

There is certainly room for improvement within the PCPP and FFS programs. Although members of PCPP choose a primary care physician, there is little resource for management of care for these clients within the program (i.e.: contacting members to encourage them to seek preventative or follow-up care). FFS members are not assigned a primary care physician, and are able to obtain care from any physician that accepts Medicaid. Because they do not have a primary care physician, preventive and follow-up care is inconsistent at best.

Conclusion

HEDIS® rates are just one way to assess the quality of care for Colorado Medicaid recipients. The Department gathers data from many diverse sources and implements interventions in a continuing effort to improve access to care, timeliness of care, and quality of care for all Colorado Medicaid recipients.

Introduction

The mission of the Colorado Department of Health Care Policy and Finance (the Department) is to improve access to cost-effective, quality health care services for Coloradans. To this end, the Department engages in activities to assess the quality of care delivered to the Colorado Medicaid population. The Health Plan Employer Data and Information Set (HEDIS®[2]) is a nationally recognized assessment of key measures of health care quality. Representatives from the Department and the managed care organizations (MCOs) that serve Colorado's Medicaid population chose the HEDIS® measures which were most appropriate for the Colorado Medicaid population and best address the Centers for Medicare and Medicaid (CMS) goals of quality, timeliness, and access to services for the Medicaid population.

Dimensions of Care

This year's report is organized into 3 dimensions of care: pediatric access to care and preventive care, adult access to care and preventive care, and chronic disease management. The dimensions reflect the priorities of the Department's focus on health care quality and access to care. This approach to the analysis is one way to assess the quality of health care delivered to Colorado Medicaid clients, and to more easily identify approaches for improvement.

Background

Plan Participation

At the time of data collection, the Colorado Medicaid program was represented by five health plans. Newly eligible clients are presented with information in order for them to choose which program they would like to join: one of the managed care programs, the PCPP, or the Fee-for-Service (FFS) program.

Managed Care is the term for a health care system with doctors, hospitals, pharmacies and other health care sources which are organized into a group or "network" in order to manage the cost, quality and access to health care.[3] There are co-payments for services or prescriptions in some managed care organizations (MCOs). MCO members must choose a primary care physician (PCP). Whenever there is a medical problem, the MCO member must first talk to their PCP. The PCP can treat or refer MCO members to a specialist within the network. MCO members cannot see providers outside the network except in emergencies or with a PCP referral.

The advantages of managed care plans are[4]:

- Coordination of care within an entire health care system
- 24 hour access to medical care
- Access to the HMO provider network of primary care providers and specialists

[2] HEDIS® is a registered trademark of the National Committee for Quality Assurance (NCQA)
[3] http://www.chcpf.state.co.us/HCPF/mcc/NewV2/health_co_v2.doc#mark1
[4] http://www.chcpf.state.co.us/HCPF/mcc/NewV2/hmo_2%20v2.doc

- Many managed care providers contact their clients to encourage timely wellness and chronic care visits

In 2006, Colorado Medicaid members could choose from three MCOs: Colorado Access (Access), Rocky Mountain Health Plan (RMHP), and Denver Health Managed Choice (DHMC). Approximately 20% of Medicaid recipients in Colorado were in one of the three managed care health plans at the time of HEDIS® data collection.

The Department manages two health plans: the Primary Care Physician Program (PCPP) and the unassigned FFS program. The majority of Colorado's Medicaid population (approximately 70%) was in the non-managed care FFS program during the measurement year. These patients do not have an assigned physician. Roughly ten percent of the Colorado Medicaid population was in PCPP. The PCPP program falls in-between the two categories of managed and non-managed care in that clients are assigned a primary care provider, but the program is not a traditional managed care network.

Data Collection

Rates are calculated retrospectively and reported the following year. For this report, the data were obtained for members enrolled in Colorado Medicaid during the calendar year 2005 and reported for the HEDIS® year 2006.

DHMC joined Colorado's Medicaid managed care programs in May, 2004; and therefore was unable to participate in measures that required participation for a fifteen month period. Following established HEDIS® criteria, only those clients who were eligible for at least 11 months of the year are included in these analyses.

Methodology

The NCQA specifies two methods of data collection to determine rates: administrative and hybrid. The Department and its EQRO work together to choose which data collection method will be used for each measure.

Claims data and encounter information are the basis for the administrative data collection method. Analysts collect this information from the plan's billing records for all eligible members. When using the administrative method, the entire eligible population for that measure becomes the denominator and the numerator is the number of the population that received the specified service. There is no sampling or extrapolation of results with the administrative data collection method. This method of data collection is cost efficient, but it can produce lower rates due to inaccurate or incomplete claims or encounter data.

The hybrid method first determines the statistically significant population for each measure (the denominator) from administrative data, and then extracts a systematic sample for a manual records review. Manual medical records review may find evidence of services provided, but not documented in the billing data or claims. The results from the records review are extrapolated to

the entire eligible population. The hybrid method of data collection generally produces higher rates for each measure but it is more labor intensive and less cost efficient.

The data in this report is expressed with notations of the weighted Colorado Medicaid average (mean). In a weighted average, the data elements with a higher weight (in this case, number of Medicaid members) contribute more to the weighted mean than do elements with a lower weight. The Colorado Medicaid average is weighted to reflect the proportionate number of members enrolled in each of the five plans. Adding weighted averages to this report recognizes the understanding that there are significant population differences between the unassigned FFS population (about 70% of the Colorado Medicaid population is in the FFS program), those in MCOs (about 20%), and those in PCPP (about 10%)[5].

Interpreting Results

How accurate are these results?

Nationally, all health plans that report HEDIS® data must comply with the specifications generated by the National Committee for Quality Assurance (NCQA) and HEDIS® data from each health plan is audited to ensure compliance. The health plans used independent auditors approved by NCQA to certify each health plan's measures. The Department's EQRO, HSAG, contracted with a NCQA-certified data collection service to calculate the measures for the PCPP and FFS programs.

HEDIS® measures are collected nationally by both commercial and publicly funded health care plans according to NCQA's rigid standards. These standards produce reliable and verifiable results that can be compared from plan to plan across the nation. HEDIS® is designed to be an "apples-to-apples" comparison of several key measures of healthcare quality, access, and timeliness.

How does Colorado Medicaid compare with other Medicaid programs nationwide?

The data in this report is expressed with national Medicaid 90th percentile notations and the Medicaid national average. The percentile is a way of providing an estimation of the proportions of the data that fall above and below a given value. For example, a measure with a reported rate at the 90th percentile indicates that the given rate ranks at the top 10% of all Medicaid health plans nationwide.

Additionally, the reader can compare how Colorado's Medicaid plans have performed over time. For each measure, data from previous reporting years is provided when available. Overall, these notations are meant to provide a better understanding of how Colorado Medicaid performs against other Medicaid plans nationally, as well as a longitudinal comparison of how the Colorado Medicaid health plans performed.

What are the limitations of this report?

NCQA developed HEDIS® to measure the performance of managed care plans. In Colorado, the Department also uses HEDIS® measures to assess the FFS population. FFS members are not

[5] Population data compiled from Department's COLD report: Managed Care H000350, Summary by Month

assigned a primary care physician and are not part of a managed care organization. Therefore, it is expected that rates for the FFS population are lower. Since the largest proportion of the Colorado Medicaid population is in the FFS program, the total weighted Colorado average for the measures are lower.

Colorado has a large rural population and the shortage of Medicaid providers, particularly specialists, in rural areas of the state presents a barrier to care for Medicaid members. Colorado also has a culturally diverse population. Although efforts are made to reach out to those with different ethnic and cultural backgrounds, barriers to care still exist. Other barriers to care for Colorado Medicaid members include: language barriers, citizenship status, and access to care for those with special health care needs. Additionally, contact information for clients is updated, but is not always current, therefore it is sometimes difficult for physicians to notify clients for timely preventive and chronic care visits.

The data are largely obtained from billing and claims information. While every effort is made to assure the accuracy of these data, due to the large volume of claims and billing data processed, there will be occasional inaccuracies or incomplete data. Additionally, claims that were denied for payment were not included for the PCPP and FFS populations even though, according to NCQA specifications, denied claims can be used to capture rates. The claims system that Colorado Medicaid currently uses does not retain denied claims.

This report is meant to capture the general performance of each of the managed care plans and the unassigned FFS plan. The Summary Table presented at the end of this report reflects additional rates not specifically discussed in this report.

Dimension 1: Pediatric Access to Care and Preventive care

Regular and timely health maintenance visits for children are important in order to assess physical and mental development, nutritional status, provide preventive care like laboratory tests and immunizations, and discuss safety issues. Identification and early treatment of potential delays in development can prevent long term and costly disabilities. For adolescents, the care extends to helping teens establish and maintain healthy lifestyle choices and education regarding risky behaviors. In a study funded by the American Association of Pediatrics (AAP), researchers found that regular preventive care visits for children greatly reduced the number of avoidable hospitalizations in the Medicaid population.[6]

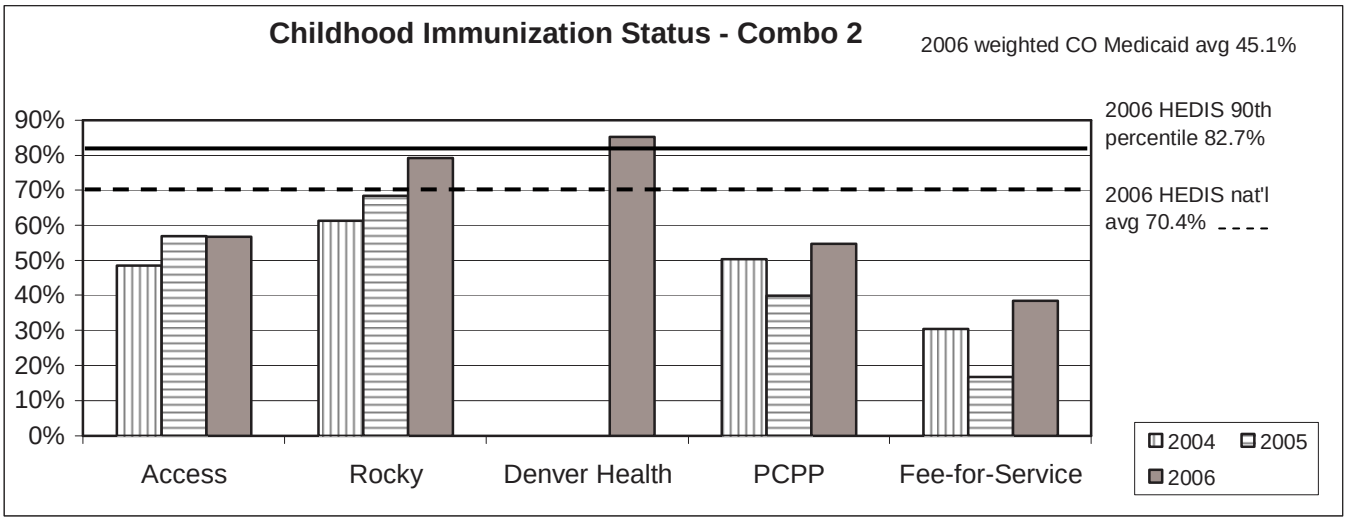
The measures discussed in this Dimension of Care are: childhood immunizations, well child visits within the first 15 months of life, well child visits in the 3rd, 4th, 5th, and 6th years of life, pediatric access to preventive or ambulatory care, adolescent immunizations, adolescent well care visits, adolescent access to care, appropriate treatment for children with an upper respiratory infection, and pediatric annual dental visits. Appropriately, this is the most comprehensive dimension of care given the fact that most of the population that Colorado Medicaid serves are children.

Childhood immunizations

Vaccines are among the most successful and cost-effective public health tools available for preventing disease and death. They not only help protect vaccinated individuals from developing potentially serious diseases, they also help protect entire communities by preventing and reducing the spread of infectious agents. Immunizations are one of the most important ways parents can protect their children against serious diseases. The Centers for Disease Control and Prevention (CDC) recommend 9 vaccinations for 13 preventable diseases.[7]

The data were collected via the hybrid method for each of the childhood immunizations recommended. For the purposes of this report, the HEDIS® measure focused on was the Combination 2 measure. Per NCQA guidelines, this measures the number of children who have received four (4) Diphtheria, Tetanus, and Pertussis (DTaP) or Diphtheria and Tetanus (DT) vaccinations, three (3) Polio (IPV) vaccinations, one (1) measles, mumps, rubella (MMR) vaccination, three (3) Haemophilus influenzae, type B (HiB) vaccinations, three (3) hepatitis B vaccinations, and one (1) Varicella (VZV) vaccination on or before the child's second birthday.

[6] Hakim, R. and Bye, B. Effectiveness of Compliance With Pediatric Preventative Care Guidelines Among Medicaid Beneficiaries, *Pediatrics*, 2001 vol. 108: 90-97.
[7] Centers for Disease Control http://www.cdc.gov



This table, like the majority of the tables in this report, features a number of elements that warrant explanation. The bar graphs represent the percentage of members in each plan who received the service. For example, 54.7% of those under age 2 in PCPP received the full complement of Combination 2 immunizations in 2006. Most plans (except DHMC in this case) have three bar graphs. These represent the rate in 2004, 2005, and 2006, respectively. Two horizontal lines represent NCQA national Medicaid data for the same measure for comparative purposes. For example, the HEDIS® national average is noted in each table, and positioned horizontal to the bar graphs so that the reader can see how each plan compares to the national HEDIS® average.

Notably, DHMC met the national 90th percentile in their first year-long measurement, and RMHP exceeded the national 75th percentile (78.5%) in this measurement.

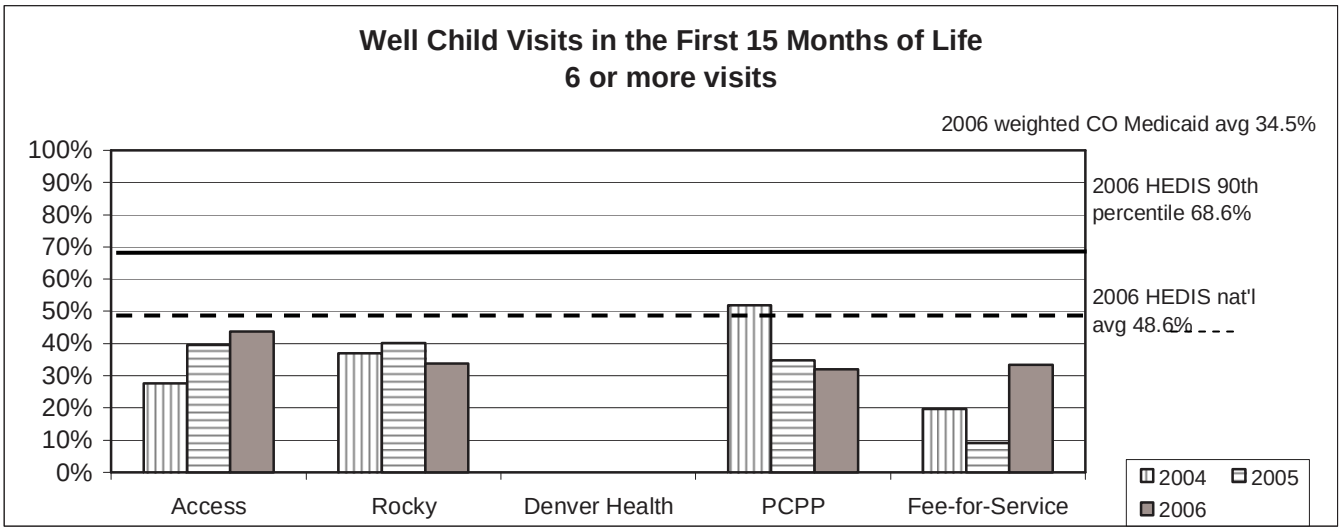
Although the PCPP program and FFS warrant attention for their low pediatric immunization rates, both showed improvement in 2006. Data collection for all Colorado Medicaid populations can be difficult as many of these children are immunized in a variety of settings outside of their primary care setting. These include schools, public health clinics, and other immunization drive efforts. An effort is being made by the Department to include data from the Colorado Immunization Database for the 2008 HEDIS® data cycle.

Quality Activities: There is an on-going, multi-agency effort to insure that the children of Colorado receive the recommended immunizations. Additionally, the Department uses multiple means to notify PCPP physicians of their clients' immunization status.

Well Child Visits in the First 15 months of Life

Frequent well-child visits in the first fifteen months of life allow a provider to identify physical, developmental, behavioral, and emotional problems and provide early intervention and treatment. The AAP recommends at least six periodic screening visits within the first fifteen months of life[8]. The rates for this measurement were obtained via the hybrid method.

[8] www.aap.org

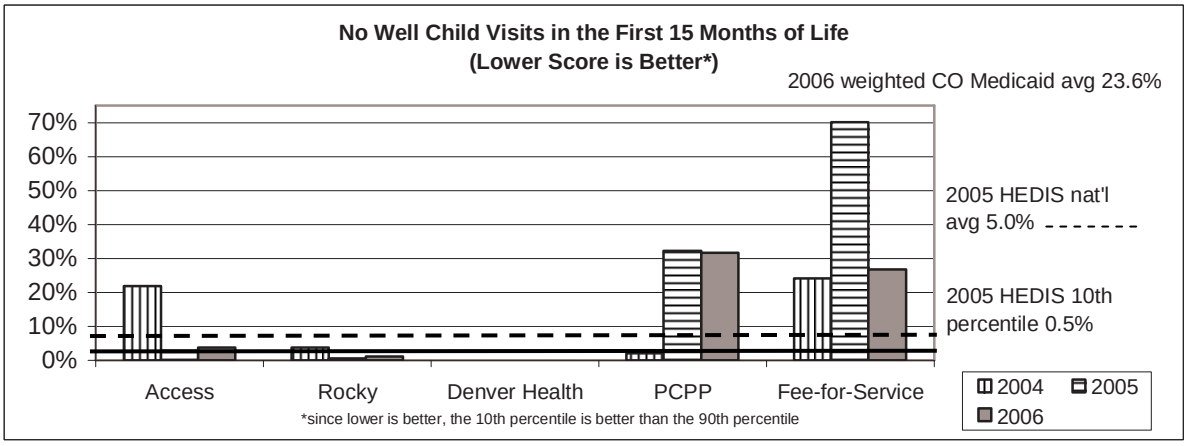


Because Denver Health was not contracted with Colorado Medicaid for the entire measurement period, they were unable to participate in this measure.

Quality Activities: The federally-funded Colorado Early Periodic Screening, Diagnosis, and Treatment (EPSDT) program adopts the AAP's recommendations for timely well-care visits, and the Department has incorporated an EPSDT toolkit[9] onto its external website for Medicaid providers and clients. This is a comprehensive resource for primary care providers and clients. The website includes forms for health screening exams specific to the child's age group, and tools for physicians and parents including immunization schedules, screenings for visual and behavioral health, and links to other resources for those who care for children. Physicians report that they use this website as a primary resource for information regarding EPSDT/well-child screenings.

No Well Child Visits in the First 15 Months of Life

These rates were obtained via the hybrid method.



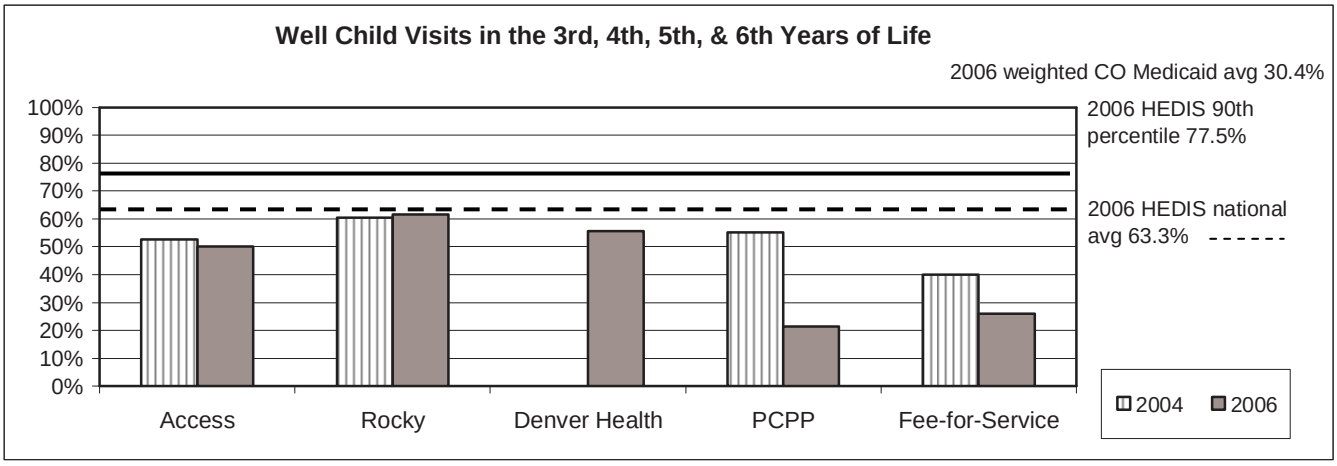
[9] The EPSDT toolkit can be found at: http://www.chcpf.state.co.us/HCPF/EPSDT/EPSDT_Final_page2.asp

Both Access and RMHP bettered the national HEDIS® average for this measure. The PCPP and FFS programs did not do well regarding this measure, in that 31.6% and 26.8% of the eligible members in each of those programs respectively do not have record of a well child visit in the first 15 months of life. However the FFS program did improve significantly since 2005 and all plans showed stability or improvement in this rate.

Quality Activities: Physicians who are members of PCPP receive periodic updates on the appropriate care for their youngest members via a quarterly newsletter, as well as periodic lists of their clients that are due for well-child checks.

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

Ongoing health screenings are important throughout a child's life. The AAP recommends at least a yearly well-child visit for children three to six years old. The NCQA has established that this measure is met if the child within the age range has had one or more well-child visits during the measurement year. The data were obtained via the administrative method.



Rates for this measure were not reported in 2005. RMHP came close to meeting the national Medicaid average, but there is room for improvement for all Colorado Medicaid programs in this area.

Quality Activities: The Department has implemented several on-going interventions to address the importance of regular health screenings for children. Provider reminders specific to the provider's patient roster, member reminders, and education for providers and parents are just a few of the strategies the Department has used to improve this rate.

Children's Access to Primary Care Providers

This rate represents the percentage of enrollees aged 12-24 months, 25 months to 6 years, and 7 to 11 years who have had a visit for any reason (not necessarily a well-child screening) with a primary care practitioner during the measurement year. The measure is meant to assess access to a physician for children of these age groups. For 7 to 11 year-olds, the visit can be during the

measurement year, or in the previous year. The data were obtained via the administrative method.

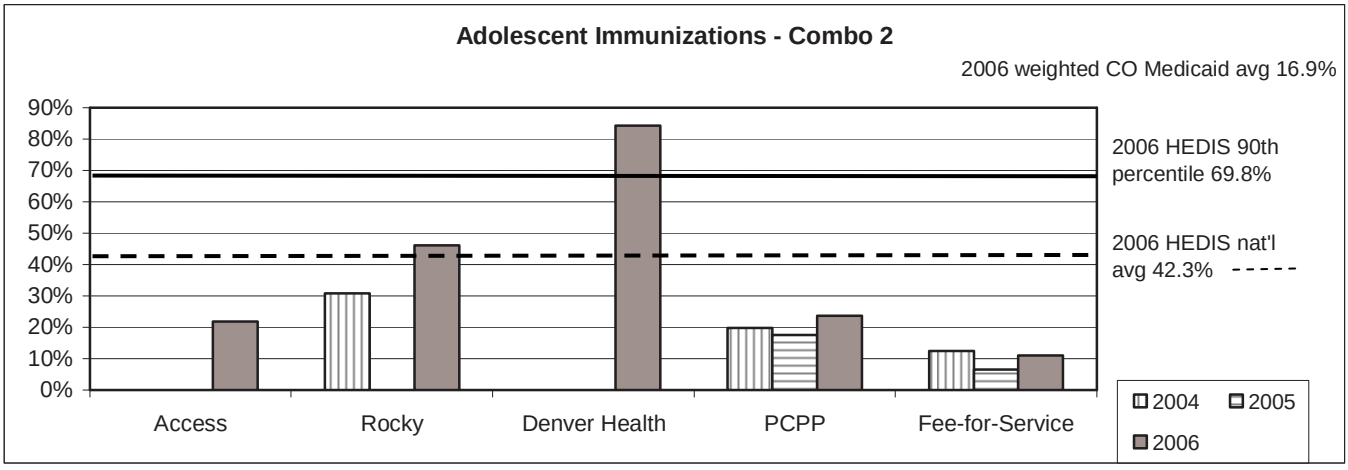
Children's Access to Preventative/Ambulatory Care

		CO Access	RMHP	DHMC	PCPP	FFS
12-24 months	**2005**	**91.3%**	**99.0%**	**n/a**	**26.2%**	**14.8%**
2006 Medicaid Nat'l Ave: 92.4% 2006 Medicaid 90th percentile: 98.2%	**2006**	**91.6%**	**98.1%**	**99.0%**	**36.0%**	**55.1%**
25 months-6 years	**2005**	**78.3%**	**89.2%**	**n/a**	**19.8%**	**9.6%**
2006 Medicaid Nat'l Ave: 82.8% 2006 Medicaid 90th percentile: 91.5%	**2006**	**78.1%**	**89.6%**	**79.9%**	**30.2%**	**38.0%**
7 - 11 years	**2005**	**82.4%**	**92.9%**	**n/a**	**29.8%**	**10.7%**
2006 Medicaid Nat'l Ave: 82.9% 2006 Medicaid 90th percentile: 92.0%	**2006**	**79.0%**	**90.8%**	**n/a**	**33.0%**	**33.2%**

DHMC had its first full year of measurement in 2006. Although the rates for the PCPP and FFS programs are generally low, there was a large improvement in the rates across all age groups from 2005 to 2006 for both of these programs. It should be noted that RMHP for all age groups met or exceeded the 75th national percentile for this measure in 2006. DHMC exceeded the 90th percentile for children aged 12 to 24 months in 2006.

Adolescent immunizations

The Centers for Disease Control (CDC) recommend that adolescents be fully immunized with the MMR, VZV, and Hepatitis B vaccines by the time of their thirteenth birthday[10]. The HEDIS® Adolescent Combination 2 rate reflects the CDC's recommendations. These data were collected via the hybrid method.



[10] www.cdc.gov

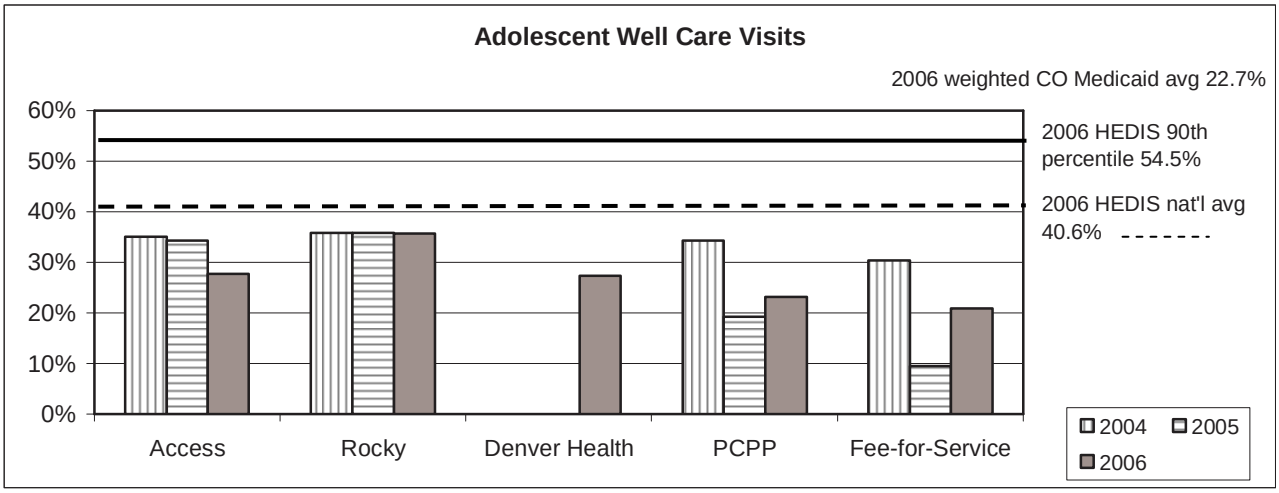
Adolescent immunization rates remain low for the Colorado Medicaid population, although the data show that rates in Colorado have remained the same or increased over the three years in which data were collected. Adolescents may receive their immunizations in other health care settings, as mentioned previously. It should be noted that DHMC exceeded the national 90th percentile for this measure.

Quality Activities: In 2004, the Department conducted a focused study that included questions to providers regarding obstacles to immunizing adolescents. From the data collected, the Department developed an intervention currently being mailed to the parents of all newly eligible children that encourages parents to bring their adolescent to their physician for a well-child exam and update of their immunizations. In 2006, the Department completed a focused study assessing the number of adolescents receiving well-child checks. The department continues to support practitioners and parents in the endeavor to make sure that adolescents are up-to-date on immunizations and wellness checks.

Adolescent Well Care Visits

Although the second decade of life is widely considered to be the healthiest time of life, many adolescents are permanently disabled or die each year due to poor behavior choices. Preventive visits are especially important so the practitioner can assess for risky behaviors and counsel the teen as well as assess physical and mental development at this critical time of life. Access to care for adolescents is a worldwide issue and is a recognized problem according to the World Health Organization as well as other organizations that specialize in teen health[11].

This measure assessed the rate of enrolled members who were 12-21 years of age and who had at least one comprehensive well-care visit with a primary care practitioner or an OB/GYN practitioner during the measurement year. The hybrid method was used to obtain the rates.



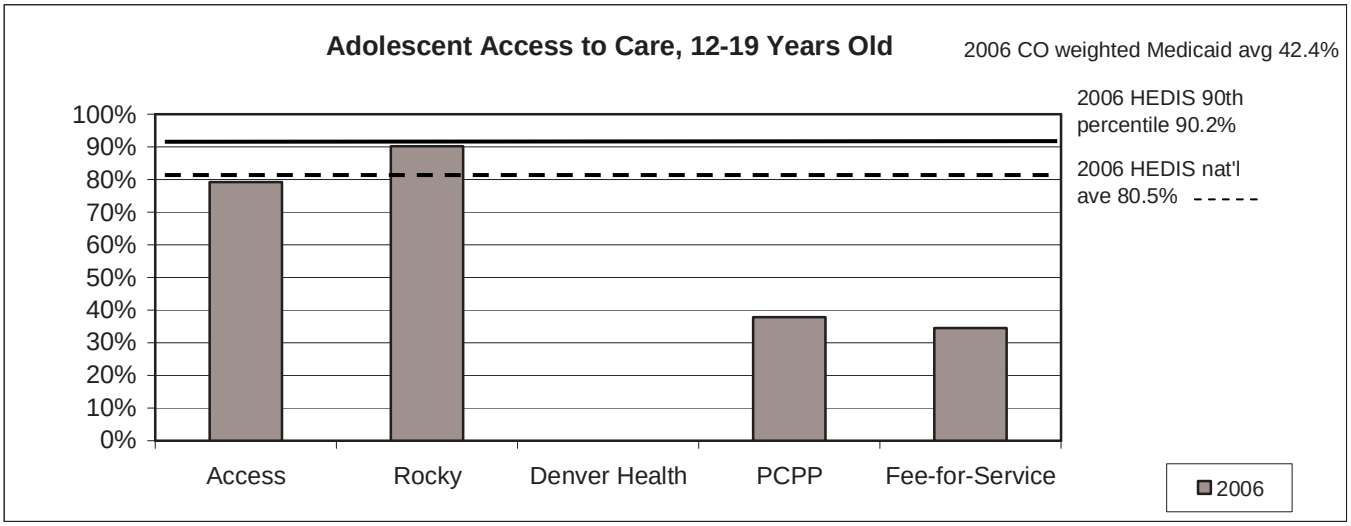
[11] www.who.int/en/; www.adolescenthealth.org

The rates show that all plans are below the national Medicaid average. RMHP has had consistent performance in this area, but all plans have opportunity for improvement.

Quality Activities: In 2004, the Department conducted a focused study that included questions to providers regarding obstacles to preventive care for adolescents. The study found that many times adolescents were being seen in the doctor's office or another medical venue (like the emergency room) for an acute care visit, but were not then given a well-care examination at the time. This represents a missed opportunity for the client and the provider. From the data collected, the Department developed an intervention that is currently being mailed to the caregivers of all newly eligible children that encourages them to bring their adolescent to their physician for a well-child exam. The department continues to support practitioners and parents in this endeavor to make sure that adolescents are up-to-date on their wellness checks.

Adolescent Access to a Primary Care Provider

This is this first year this measure was included in Colorado Medicaid's HEDIS® report. The rate represents the number of adolescents who had any type of visit during the measurement year, or the year before the measurement year. The data were collected via the administrative method.

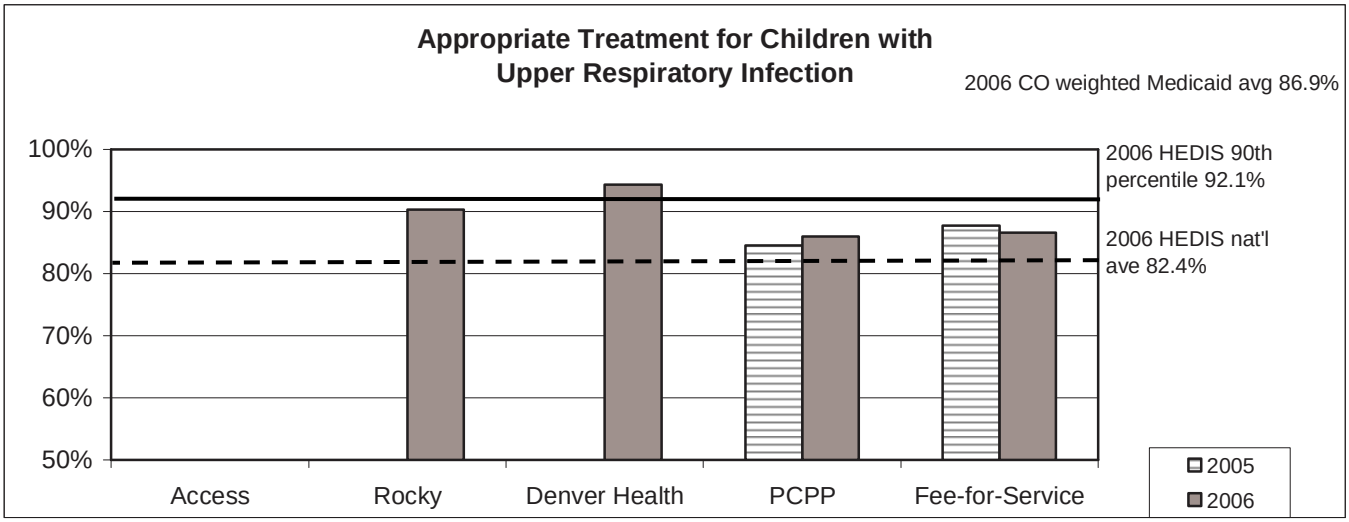


Denver Health was not contracted with Colorado Medicaid long enough to participate in this measure at the time of measurement. As discussed in the previous section, adolescent access to care is a problem for many populations worldwide. The Department continues to develop and implement a variety of activities to address the problem of access to care for adolescents.

Appropriate Treatment for Children with Upper Respiratory Infection

There is a concern in the health care community that antibiotics are being used inappropriately. Antibiotics are not appropriate for treatment of viral infections, so it is important that an antibiotic is only prescribed when a bacterial infection is suspected. When antibiotics are misused, there is a risk that they could become ineffective. The measure tracks the rate antibiotics are prescribed to children aged 3 months to 19 years, with the primary diagnosis of an

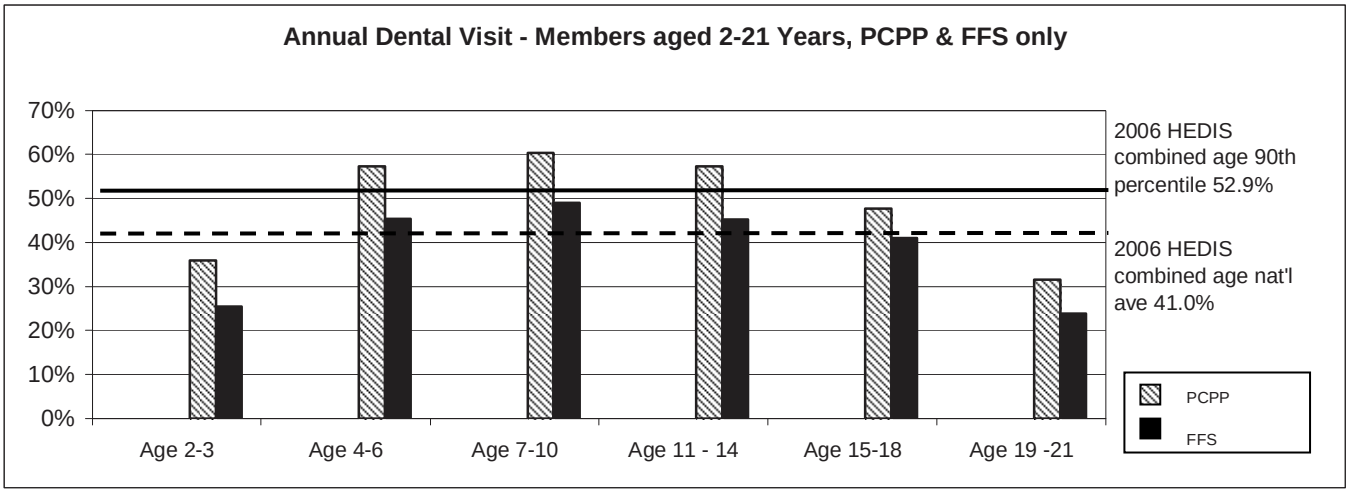
upper respiratory infection. The numerator is the number of members who were not prescribed an antibiotic (therefore, a higher number is better). The administrative method was used to collect data.



The rates show that Colorado Medicaid providers are exemplary in their conservative use of antibiotics for treatment of upper respiratory infections in children. There is a continuing effort to educate people and physicians statewide and nationwide about the inappropriate use of antibiotics.

Pediatric Annual Dental Visit

It is recommended that children have an annual dental check-up starting at age two. Dental screening benefits are covered under EPSDT, and in Colorado, it is recommended that children have their first dental visit at one year of age. This rate was measured via the administrative method on only Colorado's PCPP and FFS populations.



The PCPP program exceeded the national 75th percentile (48.6%) for the combined total of all age groups for this rate and FFS was quite close in meeting the National combined average value for this rate.

Dimension 2: Adult Access to Care and Preventive care

In 2006, the Council of State Governments (CSG) developed a resolution concerning the rising costs of health care and how states should contain those costs in their public health programs.[12] The CSG's resolution, in part, states that we should adopt a proactive rather than reactive approach to healthcare. A focus on ongoing disease prevention and health promotion activities is a more cost-effective and sensible way to approach lifelong care. One way to meet that goal is to assess the access to and timeliness of care for adults in the Medicaid population.

The measures included in this dimension include: adult access to preventative or ambulatory care (broken down by age group), adult controlling high blood pressure, and pre- and post-natal care.

Adult Access to Preventive/Ambulatory Care

This rate is the percentage of adult enrollees in Medicaid who had an ambulatory or preventive care visit during the measurement year. As this measure is meant to assess access to care for adults, any visit to a physician for any reason that was billed to Medicaid would be represented. The data were obtained via the administrative method.

Adult Access to Preventive/Ambulatory Care

		CO Access	RMHP	DHMC	PCPP	FFS
20-44 years	**2004**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**
Medicaid Nat'l Ave: 76.4% Medicaid 90th percentile: 87.0%	**2006**	**n/a**	**80.6%**	**70.2%**	**65.3%**	**58.1%**
45-64 years	**2004**	**81.4%**	**91.7%**	**n/a**	**68.2%**	**26.5%**
Medicaid Nat'l Ave: 81.4% Medicaid 90th percentile: 89.4%	**2006**	**n/a**	**90.4%**	**79.6%**	**65.2%**	**43.8%**
65 plus years	**2004**	**81.3%**	**93.7%**	**n/a**	**32.7%**	**11.5%**
Medicaid Nat'l Ave: 79.5% Medicaid 90th percentile: 93.0%	**2006**	**n/a**	**93.0%**	**81.0%**	**28.6%**	**18.2%**

These data were not reported in 2004 for the 20-44 year old age group. DHMC had not yet joined the Colorado Medicaid MCOs in 2004, so data were not available for that year. Since this was not a measure the MCOs were required to report, some data were not available for this report. It should be noted that the FFS plan improved by 60% in 2006 over 2004 rates in the 45-64 age range. RMHP met or exceeded the 90th percentile in both 45-64 year olds and 65 plus year olds.

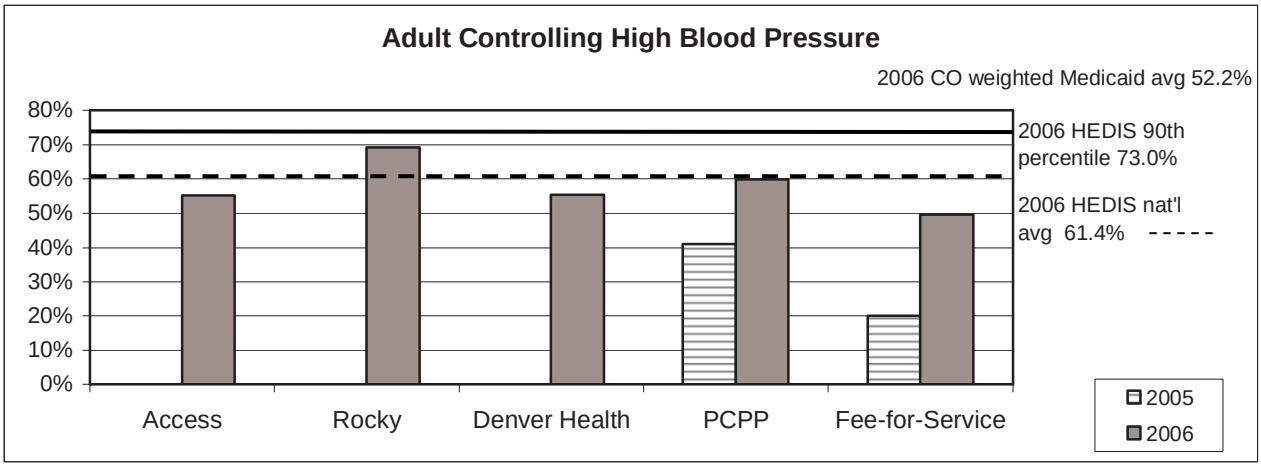
Adult Controlling High Blood Pressure

Uncontrolled high blood pressure is one of the leading health problems in this country. In 2004, cardiovascular disease (CVD) was the leading cause of death for Americans, accounting for

[12] www.csg.org Resolution on Adult Preventative Health Care Services, 2006

36.3% of all deaths in the United States[13], and high blood pressure is a major risk factor for CVD. Elevated blood pressure is often associated with other well-known risk factors, including poor diet, elevated blood lipid levels, obesity, smoking, diabetes mellitus, and physical inactivity.[14]

This rate represents the percentage of members aged 18 to 85 years old who were diagnosed with high blood pressure and whose blood pressure was adequately controlled during the measurement year. The rate was determined via the hybrid method.



RMHP met the national 75th percentile (68.5%) for this measure. Ongoing education for members and physicians regarding the importance of blood pressure monitoring and treatment for those with high blood pressure is essential to preventing the long-term complications that result from this condition.

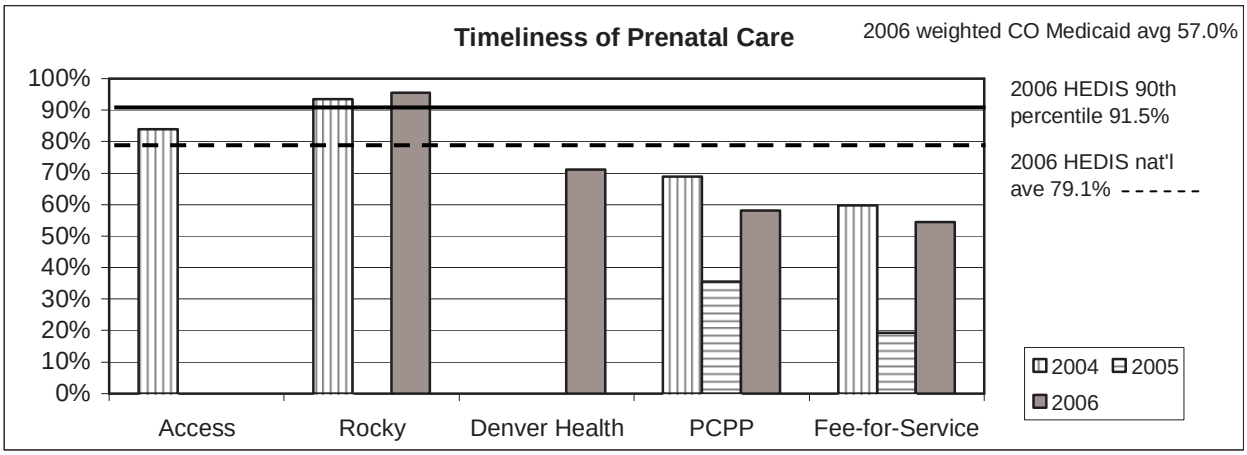
Timeliness of Prenatal Care

The importance of early and on-going prenatal care cannot be emphasized enough. It is the standard of care for women to be seen within the first trimester of her pregnancy. This way, the practitioner can begin to establish a rapport with the client and assess early on any physical or psychosocial problems that may place the health of the mother and her child at risk.

The rate calculates the percentage of deliveries that received a prenatal care visit as a member of Medicaid in the first trimester or within 42 days of enrollment into Medicaid. The data were collected via the hybrid method. The MCOs were not required to report on this measure in 2005.

[13] http://www.americanheart.org/presenter.jhtml?identifier=4478

[14] Cardiovascular Disease Risk Factors and Preventive Practices Among Adults -- United States, 1994: A Behavioral Risk Factor Atlas by Robert A. Hahn, Ph.D., M.P.H. 1 Gregory W. Heath, D.H.Sc., M.P.H.; Man-Huei Chang, M.P.H. From: www.cdc.gov

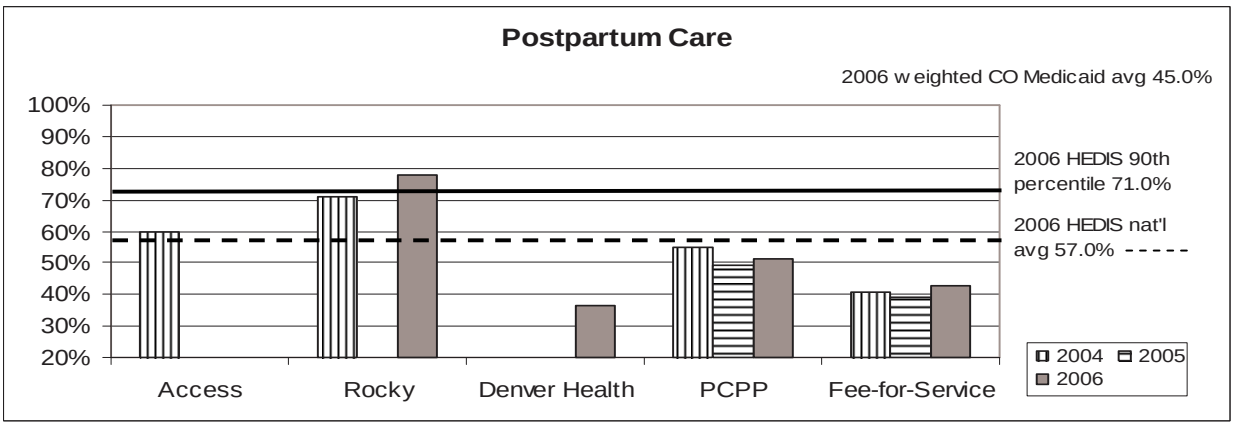


It should be recognized that RMHP was above the 90th percentile for timeliness of prenatal care. Additionally, both PCPP and FFS populations fared better in 2006 than in 2005. The Department is involved in ongoing efforts to help women obtain prenatal care as early as possible in their pregnancies.

Quality activities: In 2005, the department initiated an intervention to encourage women to seek prenatal care early in their pregnancy. A flyer was included in all new enrollment packets, customer service representatives were given a script to identify if the member calling is pregnant and then give her resources for obtaining care, and all PCPP and MCO physicians were notified of this intervention. A focused study is currently being conducted to determine the effectiveness of this intervention and other programs that address this important aspect of preventative care.

Postpartum Care

As with prenatal care, postpartum care is essential for assessing the physical and psychosocial status of the mother. Physical risks to the postpartum mother include: hemorrhage, infection, and pain, as well as psychosocial risks like post-partum depression, instability at home, and exhaustion. The measure determines the percentage of deliveries that had a postpartum visit on or between 21 and 56 days after delivery. The data were collected via the hybrid method. The MCOs were not required to report on this measure in 2005.



Again, RMHP topped the 90th percentile in this measure. NCQA specifies that a postpartum visit is only counted when the visit is made between 21 and 56 days after the date of delivery. Many women see their physicians sooner than 21 days after the date of delivery, but this visit would not be counted as a postpartum visit because it is outside the specified parameter. These rates reveal that the Colorado Medicaid average is very close to the national Medicaid average however there is certainly room for improvement. This measure is closely linked to timeliness of prenatal care in that if a client has established good prenatal care throughout her pregnancy, she will be more likely to continue the relationship with her practitioner in the postpartum period.

Quality activities: Colorado Medicaid has many programs in place to support women during and after pregnancy including the Nurse-Family Partnership and Pre-natal Plus. Both of these programs provide prenatal care coordination, home visits with a nurse, and nutritional and psychosocial counseling for women experiencing higher-risk pregnancies.

Dimension 3: Chronic Disease Management

It is known that while those with chronic illness such as diabetes or asthma comprise a relatively small percentage of the total Medicaid population, they require a large percentage of resources, both in provider hours and financially. Though in the short term, comprehensive chronic disease management may seem costly, evidence shows that planned proactive care can lead to a longer and better quality life for patients with chronic disease.[15] Oftentimes, the health care system is designed to deal efficiently with the acutely ill or injured, but can fail to meet the needs of chronically ill patients. The goal in caring for those with a chronic illness is to improve patient outcomes while still controlling the cost of caring for someone with a long-term, ongoing illness.

Comprehensive Diabetes Care for Adults

The American Diabetes Association (ADA) and the Colorado Clinical Guidelines Collaborative (CCGC) recommend a multidisciplinary approach to managing those with diabetes[16,17.] Diabetics are at higher risk for cardiovascular disease and peripheral vascular disease, and diabetes is commonly co-existent with high cholesterol. According to CCGC, comprehensive management of the diabetic client should include: consults with a nutritionist, recommendations for frequent physical activity, smoking cessation counseling, and a diabetes self-management education program in addition to a diabetes-focused doctor's visit every 3-6 months and appropriate lab work. The following table shows the percentage of Colorado Medicaid members with a primary diagnosis of diabetes who have had the recommended screenings. The hybrid method of data collection was used for this measure.

[15] Robert Wood Johnson Foundation, Improving Chronic Care, www.improvingchroniccare.org
[16] www.diabetes.org
[17] Colorado Clinical Guidelines Collaborative, Guidelines for Adult Diabetes Care, revised 4/3/06, http://www.coloradoguidelines.org/guidelines/diabetes/diabetesinadultpatients/finaldmguideline042606.pdf

Comprehensive Care for Diabetes Management

		CO Access	RMHP	DHMC	PCPP	FFS
HgbA1C Testing	**2005**	**75.9%**	**92.2%**	**n/a**	**55.2%**	**34.3%**
Medicaid Nat'l Ave: 76.2% Medicaid 90th percentile: 88.8%	**2006**	**79.4%**	**90.5%**	**83.9%**	**76.6%**	**67.2%**
Poor HgbA1C Control (lower is better)	**2005**	**49.1%**	**16.5%**	**n/a**	**79.1%**	**90.8%**
Medicaid Nat'l Ave: 49.1% Medicaid 10th percentile: 30.3%*	**2006**	**45.1%**	**17.3%**	**42.3%**	**70.1%**	**74.9%**
Eye Exam	**2005**	**44.3%**	**65%**	**n/a**	**7.8%**	**3.6%**
Medicaid Nat'l Ave: 48.6% Medicaid 90th percentile: 68.1%	**2006**	**51.2%**	**69.6%**	**45.5%**	**32.4%**	**29.9%**
Lipid Profile	**2005**	**76.2%**	**87.1%**	**n/a**	**17.8%**	**8%**
Medicaid Nat'l Ave: 80.5% Medicaid 90th percentile: 90.8%	**2006**	**81.7%**	**87.8%**	**86.9%**	**81.5%**	**73.0%**
Good Lipid Control: less than 130 mg/dl	**2005**	**47.4%**	**68.9%**	**n/a**	**17.8%**	**8%**
Medicaid Nat'l Ave: 51.3% Medicaid 90th percentile: 69.2%	**2006**	**51.9%**	**72.3%**	**72.3%**	**27.5%**	**21.9%**
Monitoring for Neuropathy	**2005**	**35.8%**	**58.2%**	**n/a**	**24.6%**	**18%**
Medicaid Nat'l Ave: 48.8% Medicaid 90th percentile: 65.6%	**2006**	**44.9%**	**57.2%**	**58.9%**	**37.5%**	**40.1%**

* A lower rate indicates better performance. For poor HgbA1C control, a rate in the 10th percentile is a better result than a rate in the 90th percentile.

In 2005, DHMC had not been active long enough to be part of the measure. RMHP was in the 90th percentile for all measures except lipid profiles and screening for neuropathy, where they met the 75th (88.1%) and the 50th (49.3%) percentiles, respectively.

Quality Activities: In 2006, the Department conducted a focused study on the quality of care adult members with diabetes in the Colorado Medicaid programs received. This was a re-measurement of a similar study conducted in 2003. The researchers concluded that while the Colorado Medicaid plans met the national Medicaid average in most measurements, providers should have a process to contact their clients to encourage them to come in for frequent diabetes-focused visits and lab work as needed.

The Department has a person dedicated to managing the quality of its disease management programs. In fiscal year 2008, the Department is adding a telehealth program for chronic disease management of high-risk members with diabetes, congestive heart failure, and asthma. The telehealth program includes home biometric monitoring with daily phone support from a nurse in order to catch changes in health status before they become emergent. The Department frequently reviews these programs for return on investment. The Department also utilizes client profiles and other techniques to notify PCPs of the status of their clients in disease management programs, and those who have been diagnosed with a chronic illness.

Conclusion

How the Plans Performed

Below is a summary of how each plan performed within each dimension of care for the measures detailed in this report.

How the Plans Performed

Percentage of measures meeting or exceeding the national Medicaid average in each dimension			
	Dimension 1: Pediatric	**Dimension 2: Adult**	**Dimension 3: Chronic Disease**
Access (MCO)	0%	60%	85.7%
DHMC (MCO)	83.3%	20%	85.7%
RMHP (MCO)	85.7%	80%	100%
PCPP	22.2%	30%	28.6%
FFS	14.8%	10%	0%

The information in this table was calculated from the results of the HEDIS® measures found in the Summary Tables. Each measure was assigned to a Dimension of Care (for example, childhood and adolescent immunizations were assigned to the pediatric dimension of care). The measures at or above the national HEDIS® average were added together, then divided by the total number of measures assigned to that dimension of care that the plan participated in to obtain the percentage of measures meeting or exceeding the national Medicaid average in each dimension. The measures used to develop this table can be found in Appendix A.

From this summarized results table, one can see that there is room for improvement for each of the three dimensions of care. It is clear from the rates shown in this report that Colorado Medicaid members in managed care programs receive better quality and access to care than those in the FFS program. This is likely due to a combination of factors. Managed care programs are designed to contain costs by requiring clients to stay within the designated network and work directly with their PCP. Additionally, these plans are motivated to encourage their patients to come in for preventive care visits in order to reduce costs associated with emergent or urgent care visits that could be avoided.

HEDIS® rates are just one way to assess the quality of care for Colorado Medicaid recipients. The Department gathers data from many diverse sources and implements interventions in a continuing effort to improve access to care, timeliness, and quality of care for all Colorado Medicaid recipients.

Summary Tables
2006 HEDIS® Colorado Medicaid, Reporting Year 2005
HEDIS® Rates for All Health Plans

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

HEDIS® Measure	Access	Denver Health	Rocky	PCPP	FFS	Total HMO	Total Colorado Medicaid	HMO w/o PCPP
Childhood Immunization Status	**Percent of children receiving immunizations by 2 years old**							
4 Diphtheria, Tetanus, Pertussis	64.7%	88.9%	85.8%	65.7%	46.0%	75.9%	66.3%	
Weighted average						69.8%	52.9%	72.2%
1 Measles, Mumps, Rubella	75.9%	93.8%	93.7%	82.2%	64.7%	85.1%	79.5%	
Weighted average						82.0%	69.8%	81.8%
3 Polio Virus immunizations	74.7%	95.1%	92.4%	74.5%	55.7%	84.1%	75.0%	
Weighted average						78.5%	62.4%	81.0%
2 Haemophilus Influenzae Type B	74.7%	95.1%	93.4%	81.0%	60.1%	84.5%	77.8%	
Weighted average						81.1%	66.3%	81.2%
3 Hepatitis B immuniztions	72.2%	92.6%	96.1%	71.8%	53.5%	84.2%	73.9%	
Weighted average						76.6%	60.3%	79.6%
1 Chicken Pox vaccines	74.9%	92.6%	90.3%	80.3%	62.8%	83.1%	77.5%	
Weighted average						80.4%	67.9%	80.4%
Pneumococcal Conjugate	20.6%	86.4%	52.9%	32.6%	24.1%	40.4%	34.6%	
Weighted average						35.1%	27.3%	36.6%
Combo 2 Rate -- 4 DTP or DTaP, 3 OPV or IPV, 1 MMR, 2 hepatitis B, 1 Hib, and VZV	56.8%	85.2%	79.2%	54.7%	38.4%	68.9%	58.2%	
Weighted average						61.3%	45.1%	65.2%
Combo 3 Rate - DTaP, IPV, MMR, HiB, hep B, VZV, pneumococcal conjugate	18.8%	79.0%	48.7%	26.3%	20.0%	37.0%	30.3%	
Weighted average						30.8%	23.1%	33.4%
Adolescent Immunizations	**Percent of adolescents who received immunizations by 13 years old**							
2 MMR vaccines	51.0%	93.0%	78.2%	50.6%	35.8%	65.2%	52.6%	
Weighted average						58.0%	42.3%	62.4%
1 Hep B immunization	42.9%	89.5%	81.6%	44.5%	32.1%	61.2%	48.3%	
Weighted average						52.3%	38.0%	57.0%
1 Chicken Pox vaccine	28.8%	85.1%	53.1%	27.3%	12.9%	44.2%	31.1%	
Weighted average						36.4%	19.8%	41.8%
Combo 2 - MMR, Hepatitis B, and VZV	21.8%	84.2%	46.0%	23.6%	10.9%	38.1%	26.8%	
Weighted average						31.2%	16.9%	35.8%

HEDIS® Measure	Access	Denver Health	Rocky	PCPP	FFS	Total HMO	Total Colorado Medicaid	HMO w/o PCPP
Comprehensive Diabetes								
HbA1c Testing	79.4%	83.9%	90.5%	76.6%	67.2%	84.5%	79.5%	
Weighted average						80.0%	70.9%	82.1%
Poor HbA1c Control (Lower is Better)	45.1%	42.3%	17.3%	70.1%	74.9%	35.1%	49.9%	
Weighted average						51.2%	68.0%	39.8%
Eye Exam	51.2%	45.5%	69.6%	32.4%	29.9%	55.3%	45.8%	
Weighted average						45.6%	34.5%	53.5%
Lipid Profile	81.7%	86.9%	87.8%	81.5%	73.0%	85.4%	82.2%	
Weighted average						82.8%	75.9%	83.6%
LDL-C Level <130 mg/dL	51.9%	72.3%	72.3%	27.5%	21.9%	65.2%	49.2%	
Weighted average						46.9%	29.2%	58.6%
LDL-C Level <100 mg/dL	35.0%	59.9%	46.5%	20.9%	15.6%	46.9%	35.5%	
Weighted average						33.4%	20.8%	40.9%
Monitoring for Diabetic Nephropathy	44.9%	58.9%	57.2%	37.5%	40.1%	53.5%	47.7%	
Weighted average						44.8%	41.5%	49.3%
Prenatal & Postpartum Care								
Timeliness of Prenatal Care	NR	71.2%	95.5%	58.2%	54.5%	89.4%	67.5%	
Weighted average						67.4%	57.0%	84.2%
Postpartum Care	NR	36.5%	78.0%	51.3%	42.8%	67.6%	54.0%	
Weighted average						53.9%	45.0%	58.6%
Adult's Access to Preventive/Ambulatory Health Services								
Ages 20-44	NR	70.2%	80.6%	65.3%	58.1%	75.8%	60.3%	
Weighted average						69.0%	60.2%	75.7%
Ages 45-64	NR	79.6%	90.4%	65.2%	43.8%	83.9%	52.7%	
Weighted average						72.4%	49.3%	85.3%
Ages 65 and Above	NR	81.0%	93.0%	28.6%	18.2%	87.2%	24.4%	
Weighted average						49.5%	24.3%	87.4%
Combined	NR	77.0%	87.4%	55.5%	41.4%	82.0%	46.7%	
Weighted average						65.1%	46.0%	82.6%
Children's Access to Primary Care Providers								
Age 12-24 Months	91.6%	99.0%	98.1%	36.0%	55.1%	93.7%	58.5%	
Weighted average						72.2%	60.1%	93.9%
Age 25 Months - 6 Years	78.1%	79.9%	89.6%	30.2%	38.0%	80.2%	46.0%	
Weighted average						61.6%	44.9%	80.4%
Age 7-11 Years	79.0%	NR	90.8%	33.0%	33.2%	81.2%	43.7%	
Weighted average						61.3%	40.8%	81.4%
Age 12-19 Years	79.3%	NR	90.3%	37.9%	34.5%	81.5%	44.5%	
Weighted average						63.4%	42.4%	81.6%

HEDIS® Measure	Access	Denver Health	Rocky	PCPP	FFS	Total HMO	Total Colorado Medicaid	HMO w/o PCPP
Well Child Visits in the First 15 Months of Life								
No Visits	3.9%	NR	1.2%	31.6%	26.8%	2.6%	17.8%	
Weighted average						15.1%	23.6%	3.3%
1 Visit	4.2%	NR	1.2%	9.6%	5.1%	2.8%	5.2%	
Weighted average						6.1%	5.4%	3.6%
2 Visits	6.9%	NR	6.4%	5.2%	4.1%	6.7%	5.5%	
Weighted average						6.1%	4.7%	6.8%
3 Visits	9.7%	NR	8.4%	6.5%	7.5%	9.1%	7.9%	
Weighted average						8.2%	7.7%	9.4%
4 Visits	13.5%	NR	18.9%	8.2%	10.5%	16.1%	12.3%	
Weighted average						12.0%	10.9%	14.6%
5 Visits	18.1%	NR	30.1%	6.9%	12.7%	24.0%	16.0%	
Weighted average						14.9%	13.3%	20.7%
6 or More Visits	43.6%	NR	33.7%	32.0%	33.3%	38.8%	35.3%	
Weighted average						37.6%	34.5%	41.6%
Well Child Visits in the 3rd, 4th, 5th & 6th Years of Life								
	50.1%	55.5%	61.5%	21.4%	26.0%	52.6%	31.4%	
Weighted average						41.1%	30.4%	52.9%
Adolescent Well-Care Visits								
	27.7%	27.4%	35.7%	23.1%	20.9%	29.1%	28.4%	
Weighted average						26.8%	22.7%	29.1%
Annual Dental Visit	**All Clients Receive Care Via PCPP and FFS**							
Age 2-3				35.9%	25.5%		26.8%	
Age 4-6				57.3%	45.4%		47.6%	
Age 7-10				60.3%	48.9%		51.0%	
Age 11 - 14				57.3%	45.2%		47.3%	
Age 15-18				47.8%	41.0%		42.1%	
Age 19 -21				31.5%	23.8%		24.5%	
Combined				52.7%	40.3%		42.3%	
Controlling High Blood Pressure								
	55.3%	55.5%	69.3%	59.9%	49.6%	55.7%	52.2%	
Weighted average						58.6%	52.2%	57.8%

HEDIS® Measure	Access	Denver Health	Rocky	PCPP	FFS	Total HMO	Total Colorado Medicaid	HMO w/o PCPP
Cholesterol Management								
LDL-C level of <100 mg/dL 60-365 days	31.3%	NR	41.0%	18.5%	15.3%	34.5%	23.1%	
LDL-C level of <130 mg/dL 60-365 days	39.5%	NR	54.8%	24.6%	20.0%	44.7%	30.1%	
LDL-C screening 60-365 days	61.7%	NR	65.4%	47.2%	47.9%	62.7%	51.9%	
Appropriate Treatment for Children with Upper Respiratory Infection								
	NR	94.3%	90.3%	86.0%	86.6%	91.4%	86.9%	
Weighted average						88.2%	86.9%	92.2%
Ambulatory Care (Total)								
Outpatient Visits/1,000 Member Months	282.17	291.03	431.94	299.42	272.16	310.39	281.94	
Ambulatory Surgery Procedures/ 1,000 Member Months	5.65	5.76	10.32	6.88	4.57	6.51	5.16	
Emergency Room Visits/ 1,000 Member Months	60.75	30.59	48.26	57.31	52.64	53.86	53.36	
Observation Room Stays Resulting in Discharge/ 1,000 Member Months	1.99	1.03	1.47	1.94	3.38	1.75	2.94	

Appendix A – Measures used to Calculate How the Plans Performed

Dimension 1: Pediatric Access to Care and Preventive Care

Childhood Immunizations
- Diptheria, Tetanus Pertussis
- Measles, Mumps, Rubella
- Polio Virus immunizations
- Haemophilus Influenzae Type
- Hepatitus B immunizations
- Chicken Pox (Varicella) vaccine
- Pneumococcal Conjugate
- Combo 2 Rate
- Combo 3 Rate

Adolescent Immunizations
- Measles, Mumps, Rubella
- Hepatitus B immunizations
- Chicken Pox (Varicella) vaccine
- Combo 2 Rate

Children's Access to Primary care Providers
- Age 12 – 24 months
- Age 25 months – 6 years
- Age 7 – 11 years
- Age 12 – 19 years

Well Child Visits in the first 15 Months of Life
- 6 or more visits

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

Adolescent Well-Care Visits

Annual Dental Visit (only used in PCPP and FFS calculation)
- Age 4 -6
- Age 7 – 10
- Age 11 – 14
- Age 15 – 18
- Age 19 - 21

Appropriate Treatment for Children with Upper Respiratory Infection

Dimension 2: Adult Access to Care and Preventative Care

Prenatal & Postpartum care
- Timeliness of Prenatal Care
- Postpartum Care

Adult's Access to Preventive/Ambulatory Health Services
- Ages 20 – 44
- Ages 45 – 64
- Ages 65 and above

Controlling High Blood Pressure

Ambulatory Care (lower is better for these rates)
- Outpatient visits per 1,000 member months
- Ambulatory surgery per 1,000 member months
- Emergency room visits per 1,000 member months
- Observation room stays resulting in discharge per 1,000 member months

Dimension 3: Chronic Disease Management

Comprehensive Diabetes
- HbA1c Testing
- Poor HbA1c Control (lower is better)
- Eye exam
- Lipid profile
- LDL – C level < 130 mg/dL
- LDL – C level < 100 mg/dL
- Monitoring for diabetic neuropathy