State of Colorado

Department of Health Care Policy & Financing

Office of Medical Assistance

Quality Improvement Section

2007 HEDIS® Report

Health plan Employer Data & Information Set

Evaluation of Quality of Care Delivered to Medicaid Clients in 2007

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Health plan Employer Data & Information Set
Evaluation of Quality of Care
Delivered to Colorado Medicaid Clients in 2007

State of Colorado Department of Health Care Policy and Financing
1570 Grant Street Denver, Colorado 80203
January 2009

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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 four different health plans during the year of measurement. Members could choose from one of two 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 two 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.

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

Results

How the Plans Performed

Number of measures meeting or exceeding the national Medicaid average in each dimension*			
	Dimension 1: Pediatric	**Dimension 2: Women's & Maternal Health**	**Dimension 3: Chronic Disease**
DHMC (MCO)	7 out of 8	0 out of 3	1 out of 4
RMHP (MCO)	6 out of 8	3 out of 3	3 out of 4
PCPP	2 out of 8	0 out of 3	0 out of 4
FFS	2 out of 8	0 out of 3	0 out of 4

* See appendix B for list of measures used for this table

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).

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 higher quality of care 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, thereby making it easier to coordinate care. Additionally, plans are motivated to encourage their clients to come in for preventive care visits in order to reduce costs associated with emergent or urgent care visits that could be avoided.

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 four 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, 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

During the measurement year, Colorado Medicaid members could choose from two MCOs: Rocky Mountain Health Plan (RMHP), and Denver Health Managed Choice (DHMC). Approximately 20% of Medicaid recipients in Colorado were in one of the two 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 clients do not have an assigned physician. Roughly ten percent of the Colorado Medicaid population was in PCPP. PCPP is a managed care program that is administered internally by the Department. Clients are assigned a primary care provider, but the program does not have 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 2006 and reported for the HEDIS® year 2007.

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 starts by collecting data via the administrative method, so the denominator is all members eligible for the measure. Then the analyst extracts a systematic sample of the eligible population 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 eligible for a particular measure) 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 eligible for each of the measures. For example, for the Adolescent Well Care measure, the average is weighted for the number of adolescents enrolled in each of the plans.

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, Health Services Advisory Group (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 assigned a PCP and are not part of an MCO. 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.

For the measures collected via the administrative method, a significant portion of the data are missing. Federally Qualified Health Clinics (FQHC) are safety net clinics that serve people who are under-insured, uninsured as well as people who have Medicaid. The FQHCs submit an

encounter claim when they see a client and this type of claim does not code for the type of visit. It is estimated that one-third of our clients are served by the FQHC system. In this report, these measures include: well-child visits in the 3rd, 4th, 5th and 6th years of life, appropriate treatment for children w/ upper respiratory infection, appropriate treatment for children with pharyngitis, breast cancer screening, and use of appropriate medications for people with asthma. In 2009, the Department began to work with the FQHCs to remedy this issue.

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.

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.[5]

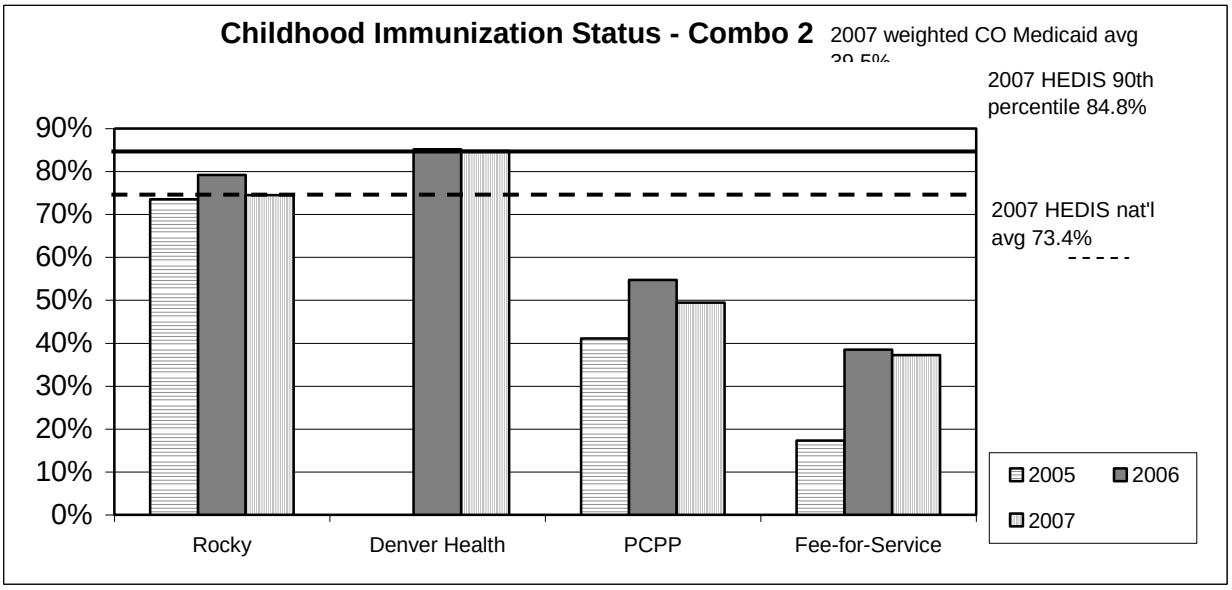
The measures discussed in this Dimension of Care are: childhood immunizations, well child visits within the first 15 months of life, well child visits in the 3rd, 4th, 5th, and 6th years of life, adolescent immunizations, adolescent well care visits, appropriate treatment for children with an upper respiratory infection, and appropriate testing for children with pharyngitis. Appropriately, this is the most comprehensive dimension of care given the fact that most of the population that Colorado Medicaid serves is under 18 years old.

[5] Hakim, R. and Bye, B. Effectiveness of Compliance With Pediatric Preventative Care Guidelines Among Medicaid Beneficiaries, *Pediatrics*, 2001 vol. 108: 90-97.

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.[6]

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.



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, 49.4% of those under age 2 in PCPP received the full complement of Combination 2 immunizations in 2007. Most plans (except DHMC in this case) have three bar graphs. These represent the rate in calendar years 2005, 2006 and 2007 respectively. Two horizontal lines represent 2007 NCQA national Medicaid data for the same measure for comparative purposes. For example, the HEDIS® national average is noted as a dotted line 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. The HEDIS® 90th percentile is also noted with a solid horizontal line.

[6] Centers for Disease Control http://www.cdc.gov

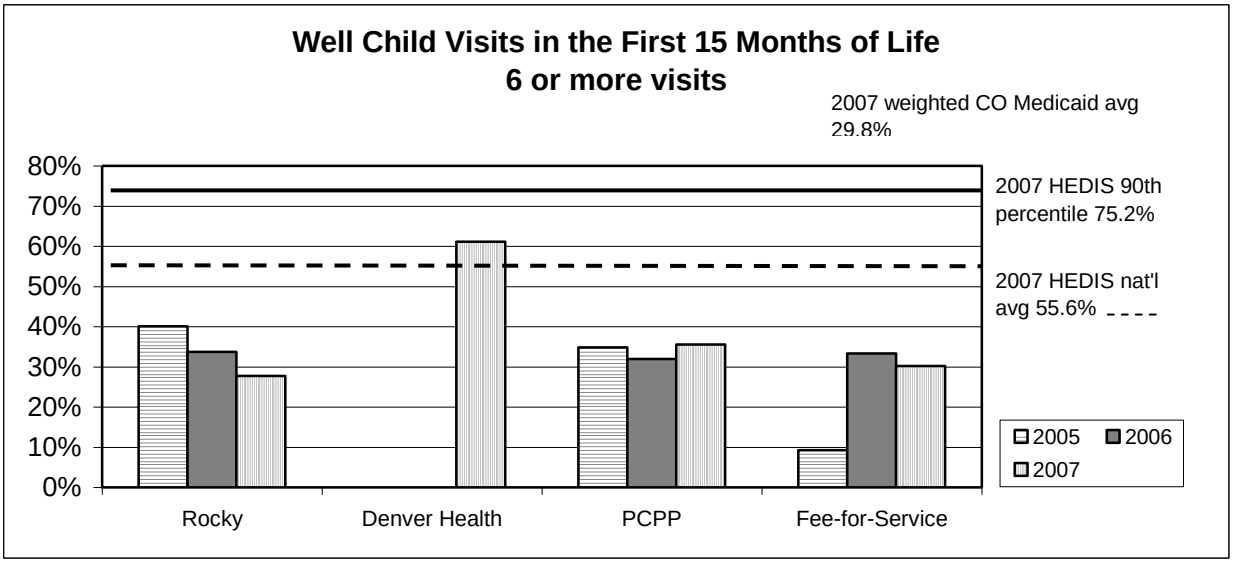
Notably, DHMC met the national 90th percentile in both 2006 and 2007, and RMHP exceeded the national Medicaid average (74.5%) in this measurement.

Although PCPP and FFS warrant attention for their low pediatric immunization rates, both remained relatively stable in 2007. 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 settings 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 15 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[7]. The rates for this measurement were obtained via the hybrid method.

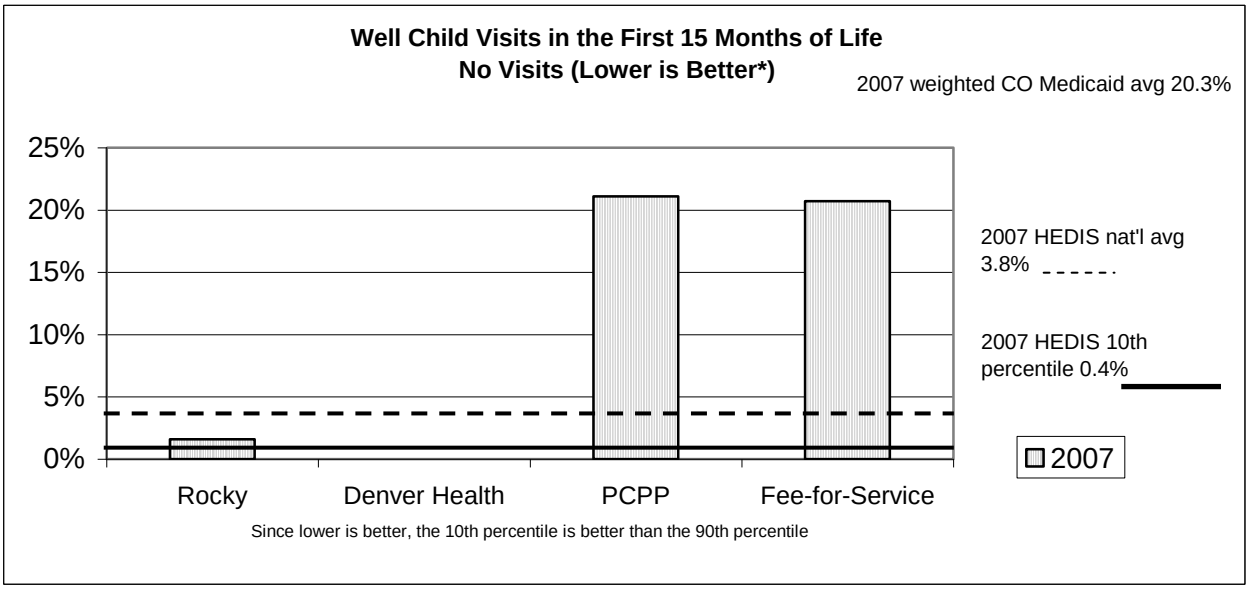


Quality Activities: The federally-funded Colorado Early Periodic Screening, Diagnosis, and Treatment (EPSDT) program adopts the AAP's recommendations for timely well-care visits, and the Department has incorporated an EPSDT toolkit[8] onto its external website for Medicaid providers and clients. Physicians report that they use this website as a primary resource for information regarding EPSDT/well-child screenings. Additionally, in 2007, the Colorado state legislature passed legislation mandating that every child covered by Medicaid or CHP+ should have access to a medical home. A "medical home" means a doctor's office that provides comprehensive services, helps with coordination with specialist providers as needed and takes a family-centered approach to care. As of December, 2008 there were approximately 75,000 children in medical homes. The Department expects that by December of 2009, 80% of children on Medicaid or CHP+ will be in medical homes.

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

No Well Child Visits in the First 15 Months of Life

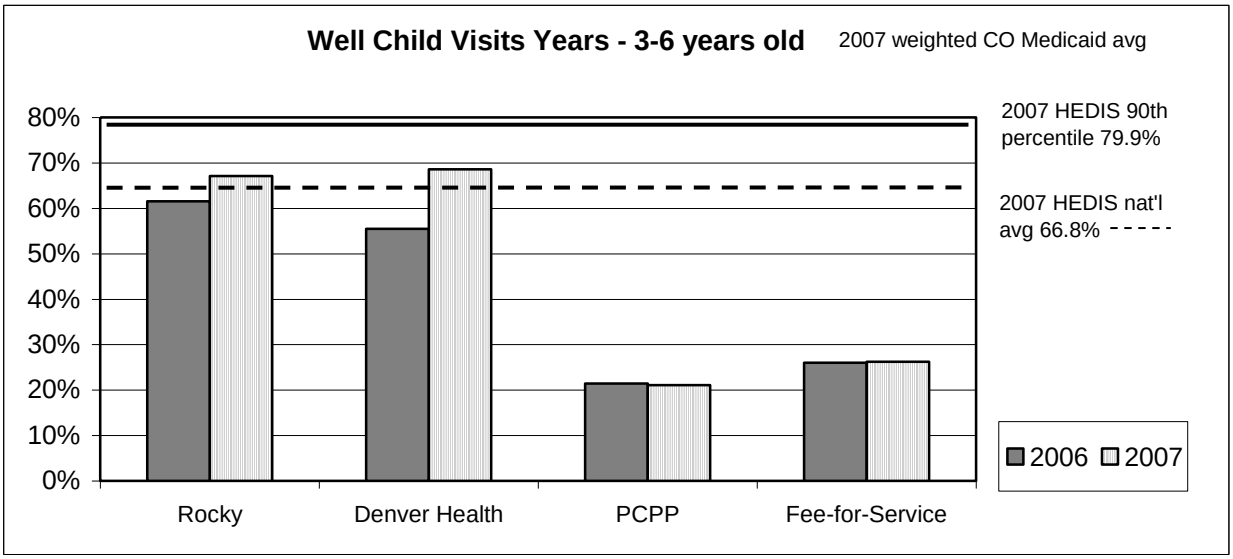
This means that the fifteen month old child does not have a record of a well-child visit since they were born. Because the average length of time a child is on Medicaid is approximately 8 months, it is possible that the child had a well-child check when not on Medicaid. A lower number is better for this measure. These rates were obtained via the hybrid method.



Quality Activities: This is largely a measure of access to care. In 2007, Medicaid activities intended to improve access to care included: an increase in provider reimbursement for well-child codes, global provider reimbursement rate increases and streamlining the application process for Medicaid clients.

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.

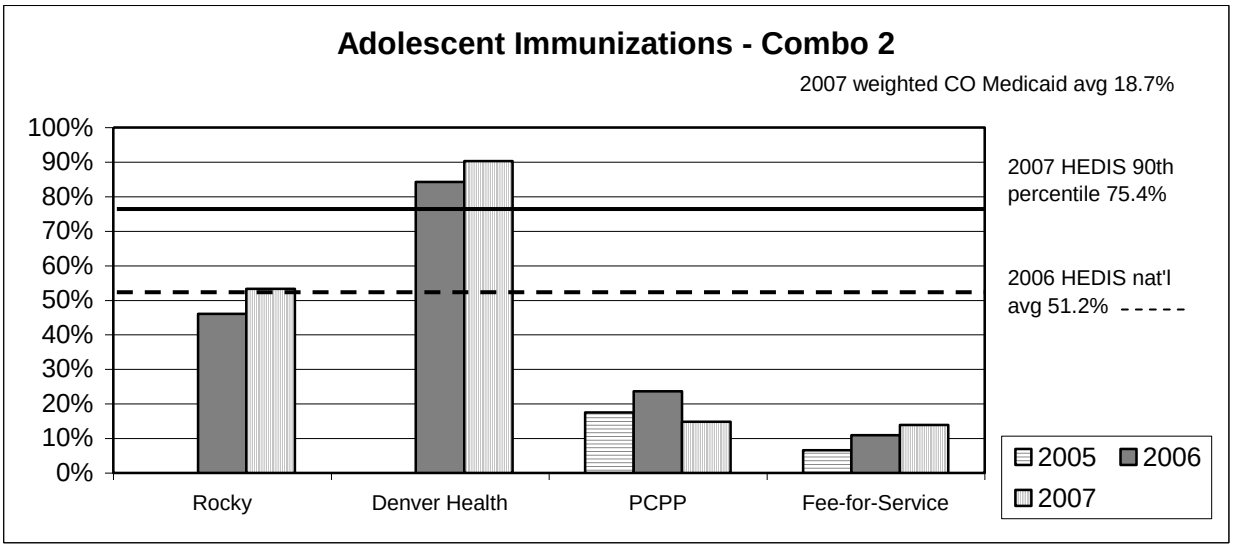


Rates for this measure were not reported in 2005.

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. Additionally, in 2007, the Colorado state legislature passed legislation mandating that every child covered by Medicaid or CHP+ should have access to a medical home. A "medical home" means a doctor's office that provides comprehensive services, helps with coordination with specialist providers as needed and takes a family-centered approach to care. As of December, 2008 there were approximately 75,000 children in medical homes. The Department expects that by December of 2009, 80% of children on Medicaid or CHP+ will be in medical homes.

Adolescent immunizations

The CDC recommend that adolescents be fully immunized with the MMR, VZV, and Hepatitis B vaccines by the time of their thirteenth birthday[9]. The HEDIS® Adolescent Combination 2 rate reflects the CDC's recommendations. These data were collected via the hybrid method.



Adolescent immunization rates remain low for most of the Colorado Medicaid population. The Adolescents may receive their immunizations in other health care settings, as mentioned previously. An effort is being made by the Department to include data from the Colorado Immunization Database for the 2008 HEDIS® data cycle. It is notable that DHMC exceeded the national 90th percentile for this measure in both 2006 and 2007.

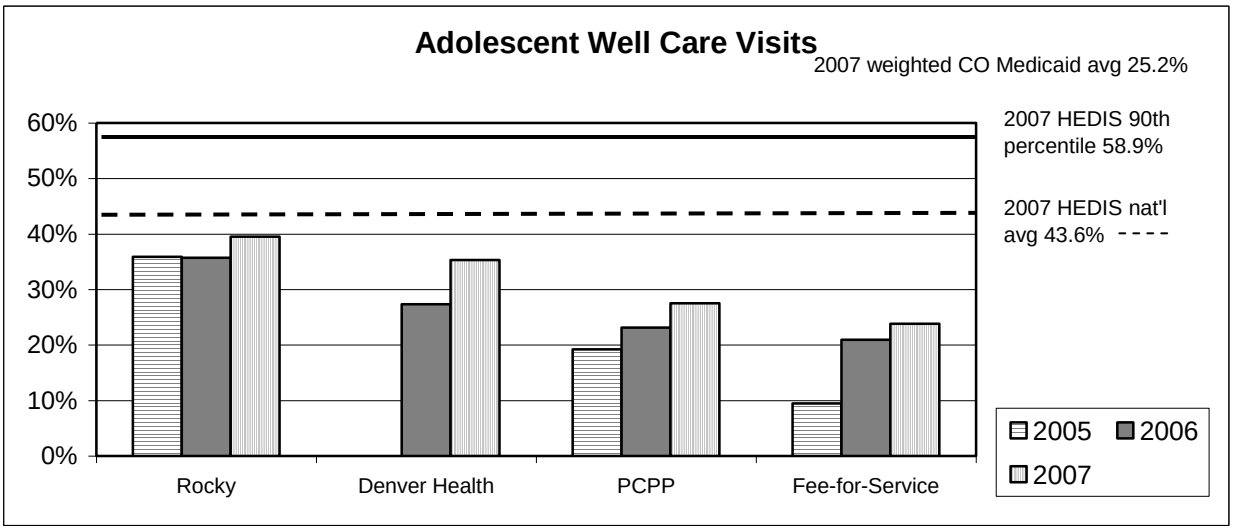
Quality Activities: In 2006, the Department completed a focused study assessing the number of adolescents receiving well-child checks which presents an opportunity for providers to bring the adolescent up-to-date on their immunizations.

[9] www.cdc.gov

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 health issue and is a recognized problem according to the World Health Organization as well as other organizations that specialize in teen health[10].

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.



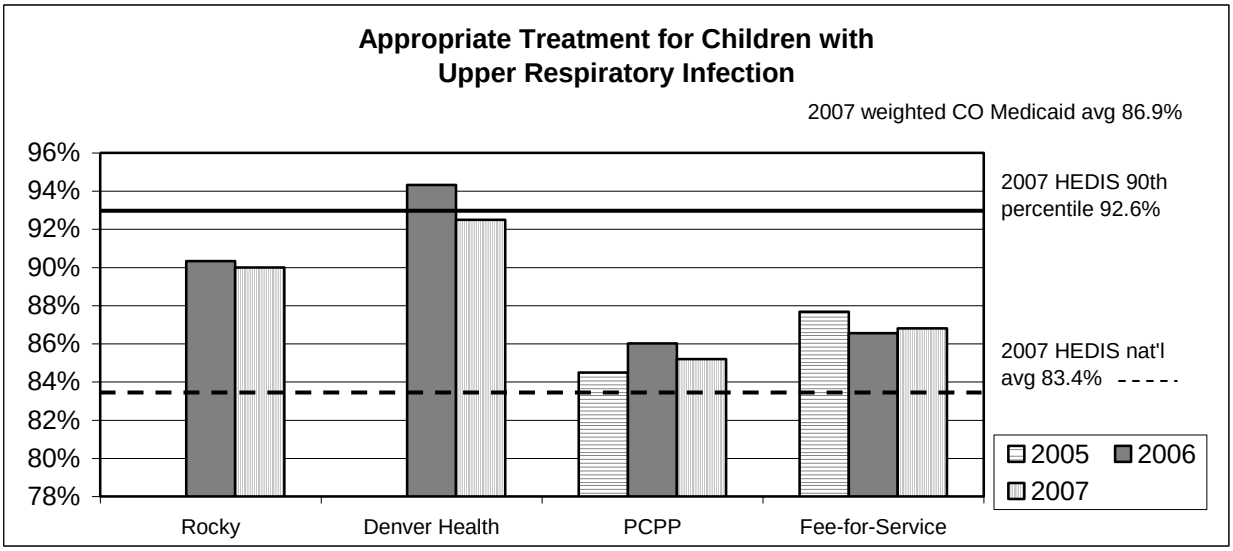
The rates show that all plans are below the national Medicaid average, however all plans showed some improvement.

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. Both RMHP and DHMC have made an effort to counsel parents and providers of the importance of wellness care during adolescence.

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

Appropriate Treatment for Children with Upper Respiratory Infection

There is a concern in the health care community that antibiotics are often 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.

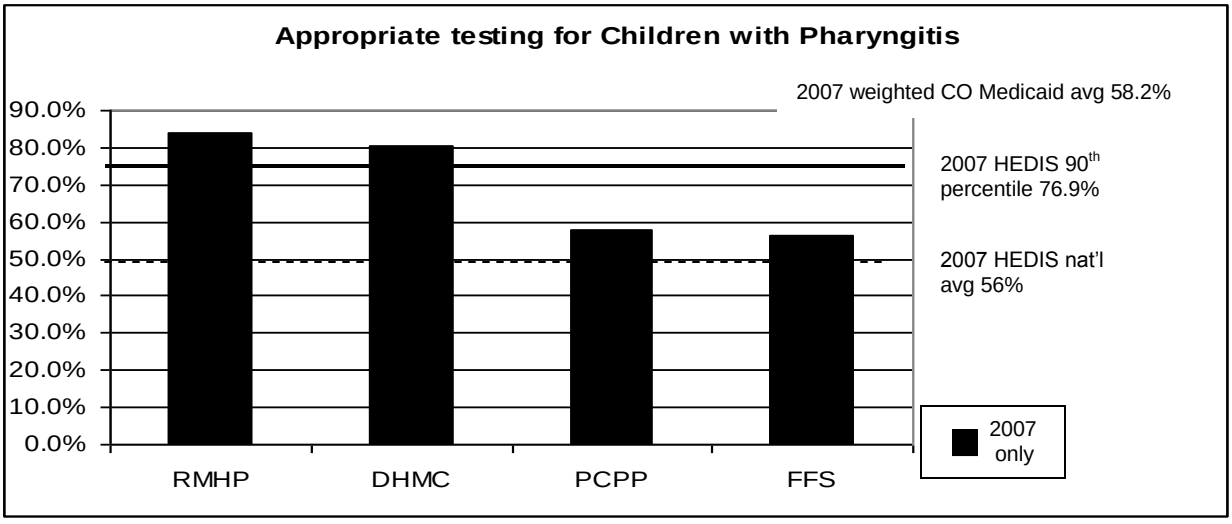
Appropriate Testing for Children with Pharyngitis

Pharyngitis is the only condition among upper respiratory infections (URIs) whose diagnosis can easily be objectively validated through administrative and laboratory data, and it can serve as an important indicator of appropriate antibiotic use among all respiratory tract infections. Overuse of antibiotics has been directly linked to the prevalence of antibiotic resistance in the community. Promoting judicious use of antibiotics is important to reducing levels of antibiotic resistance. Pediatric clinical practice guidelines recommend that only children with diagnosed group A streptococcus (strep) pharyngitis based on appropriate lab tests be treated with antibiotics. A strep test (rapid assay or throat culture) is the definitive test of group A strep pharyngitis. Excess use of antibiotototics is highly prevalent for pharyngitis; about 35 percent of the total 9 million antibiotics prescribed for pharyngitis in 1998 were estimated to be in excess[11].

This measure is used to assess the percentage of children 2 to 18 years of age who were diagnosed with pharyngitis, dispensed an antibiotic and received a group A streptococcus (strep) test for the episode*.

*Outpatient or emergency department (ED) visit with only a diagnosis of pharyngitis and a dispensed antibiotic for that episode of care during the Intake Period.[12]

The administrative method was used to collect these data.



Results show that all Colorado Medicaid plans exceed the national HEDIS Medicaid average for this measure. Providers with DHMC and RMHP exceed the 90th percentile for this measure.

[11] From AHRQ National Quality Measures Clearinghouse: http://www.qualitymeasures.ahrq.gov/summary/summary.aspx?doc_id=10026
[12] Ibid.

Dimension 2: Women's Health & Maternal Health

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.[13] 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 women in the Medicaid population.

Women are typically the health care decision-makers for their families and take charge of the vast majority of routine health care decisions and responsibilities for their family.[14] Women make 64% to 80% of the healthcare decisions in their households, according to several sources. [15] One-third of women with Medicaid (32%) stated that they postponed or went without needed health services in the past year because they could not afford it.[16] Access to health care is a linchpin for women's economic and health security and family well-being. As policymakers, providers, patients, advocates, and researchers develop strategies to strengthen the health care system, it is critical that they recognize women's central role in the system and how much is at stake for women as a consequence of their decisions.[17]

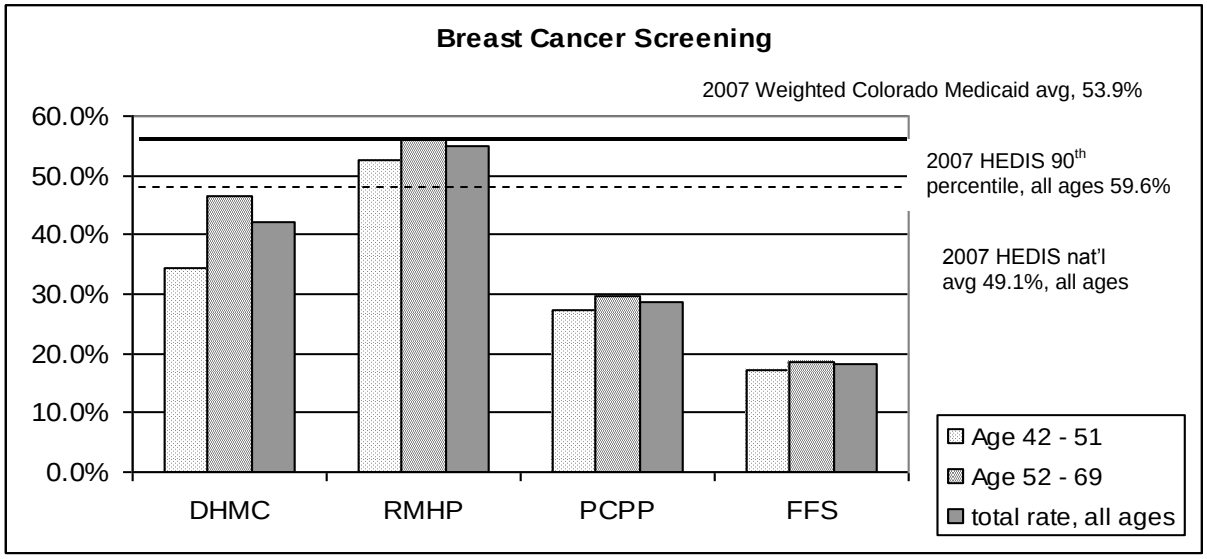
The measures included in this dimension include: breast cancer screening and pre- and post-natal care.

[13] www.csg.org Resolution on Adult Preventative Health Care Services, 2006
[14] http://www.kff.org/womenshealth/upload/Women-and-Health-Care-A-National-Profile-Key-Findings-from-the-Kaiser-Women-s-Health-Survey-Report-Highlights.pdf
[15] Ngeo, Christine, "The First gatekeeper: Healthcare Ads Target Women as Key Decision Makers," *Modern Healthcare*, July 6, 1998.
[16] http://www.kff.org/womenshealth/upload/Women-and-Health-Care-A-National-Profile-Key-Findings-from-the-Kaiser-Women-s-Health-Survey-Report-Highlights.pdf
[17] ibid

Breast Cancer Screening

Breast cancer is the most common non-skin malignancy among women in the United States and second only to lung cancer as a cause of cancer-related death. In 2001, an estimated 192,200 new cases of breast cancer were diagnosed in American women, and 40,200 women died of the disease. The risk for developing breast cancer increases with age beginning in the fourth decade of life. The probability of developing invasive breast cancer over the next 10 years is 0.4 percent for women aged 30-39, 1.5 percent for women aged 40-49, 2.8 percent for women aged 50-59, and 3.6 percent for women aged 60-69. Individual factors other than age that increase the risk for developing breast cancer include family history or a personal history of breast cancer, biopsy-confirmed atypical hyperplasia, and having a first child after age 30. The U.S. Preventive Services Task Force (USPSTF) recommends screening mammography, with or without clinical breast examination (CBE), every 1-2 years for women aged 40 and older.[18]

The administrative method was used to collect these data.



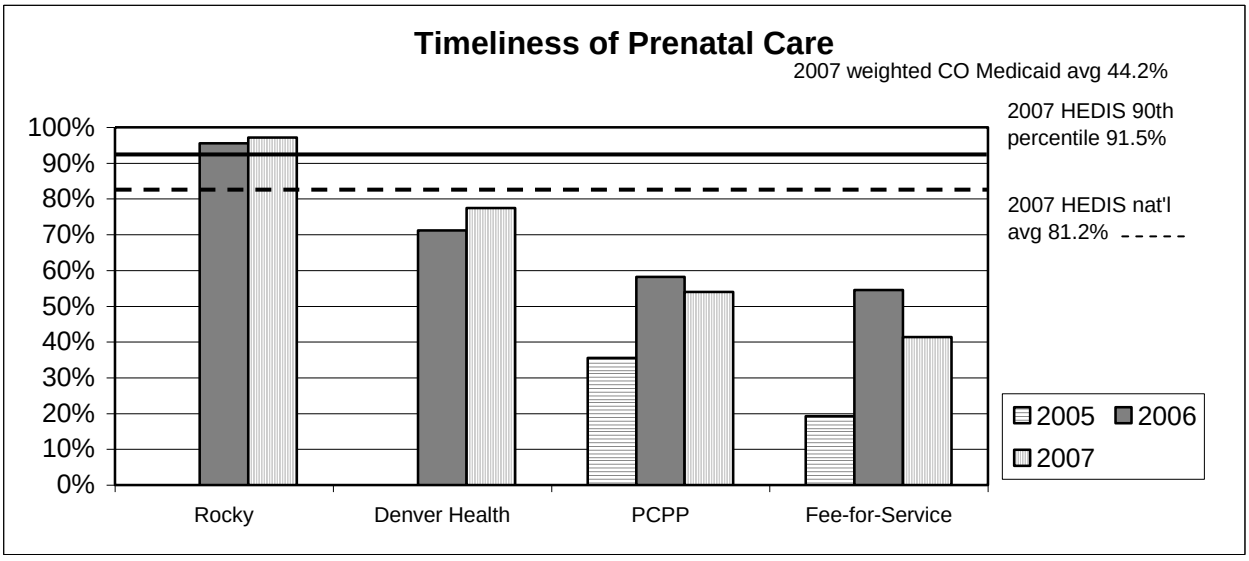
Although the statewide average for breast cancer screening for all ages exceeds the national Medicaid average, fewer women in Medicaid's PCPP and FFS programs are receiving the recommended screenings than women enrolled in the MCOs.

[18] http://www.ahrq.gov/clinic/3rduspstf/breastcancer/brcanrr.htm

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 women who delivered babies while covered by Medicaid 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.

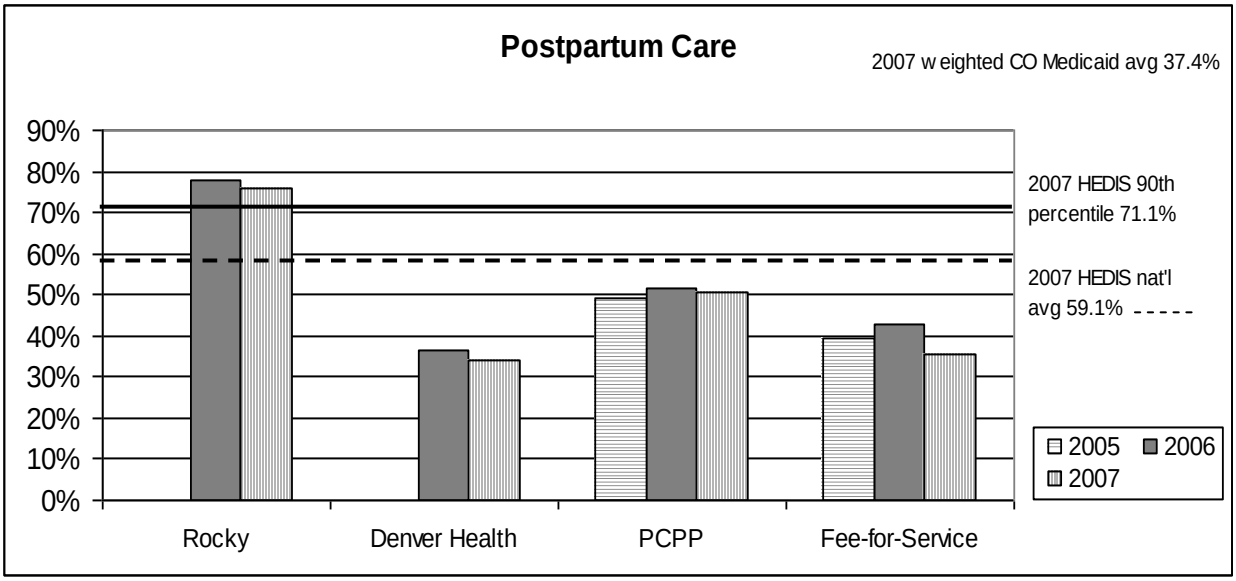


It should be recognized that RMHP was above the 90th percentile for timeliness of prenatal care and that DHMC improved their rate over 2006. The Department is involved in ongoing efforts to help women obtain prenatal care as early as possible in their pregnancies.

Quality activities: In 2007, the Department conducted a statewide focused study to determine rates of prenatal and postpartum care for women covered by Medicaid. Both DHMC and RMHP have a number of programs in place to encourage pregnant women to seek care early in their pregnancy. This measure reflects an access to care issue; in 2007 the Department streamlined the application process for Medicaid and CHP+ and raised provider reimbursement rates. The Department anticipates that these activities may improve access to providers for all Medicaid clients.

Postpartum Care

As with prenatal care, postpartum care is essential for assessing the physical and psychosocial health status of the mother. Physical risks to the postpartum mother include: hemorrhage, infection, and pain, as well as psychosocial risks like postpartum 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.



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, in partnership with the Colorado Department of Public Health and Environment, 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. 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 clients with chronic disease.[19]

The measures in this section are: use of appropriate medications for people with asthma, comprehensive diabetes care for adults and controlling high blood pressure.

[19] Robert Wood Johnson Foundation, Improving Chronic Care, www.improvingchroniccare.org

Use of Appropriate Medications for People with Asthma

Asthma is a chronic respiratory disease that places a considerable burden on those affected and results in substantial morbidity and health care utilization.
• More than 30 million individuals in the United States have been diagnosed with asthma during their lifetime.
• In 2001, 12 million Americans had experienced an asthma attack in the previous year.
• In 2000, asthma accounted for 10.4 million outpatient visits,1.8 million emergency department visits, 465,000 hospitalizations, and 4,487 deaths nationally.
• The total direct and indirect costs of asthma in the United States are estimated at more than $14 billion annually.[20]

Use of appropriate medications for people with asthma measures the percentage of clients 5 – 56 years of age during the measurement year who were identified as having persistent asthma and who were appropriately prescribed medication during the measurement year.[21] NCQA works with the American Medical Association and the Physician Consortium for Performance Improvement to develop the criteria for this measure. The administrative method was used to collect these data.

2007 Appropriate Medications for People with Asthma

	RMHP	DHMC	PCPP	FFS
Ages 5-9	**97.4%****	**n/a**	**91.3%***	**92.3%***
Medicaid Nat'l Ave: 89.6% Medicaid 90th percentile: 96.3%				
Ages 10-17	**79.5%**	**n/a**	**89.5%***	**89.4%***
Medicaid Nat'l Ave: 87% Medicaid 90th percentile: 93%				
Ages 18-56	**85.9%***	**77.9%**	**85.2%***	**84.8%***
Medicaid Nat'l Ave: 84.7% Medicaid 90th percentile: 90.9%				
All Ages Combined	**87%***	**81.5%**	**87.9%***	**88.7%***
Medicaid Nat'l Ave: 87.1% Medicaid 90th percentile: 92%				

* Indicates the rate is above the national Medicaid average. ** Indicates the rate is above the national 90th percentile.

Both FFS and PCPP exceeded the national Medicaid average in all age groups. RMHP was above the 90th percentile for school aged children with asthma.

[20] Clinical Performance Measures, *Asthma*: Tools Developed by Physicians for Physicians, Provided by: Physician Consortium for Performance Improvement, © 2005 American Medical Association.
[21] National Committee for Quality Assurance HEDIS 2008 Technical Specifications

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[22,23.] 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 clinical screenings. The hybrid method of data collection was used for this measure.

[22] www.diabetes.org
[23] 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

		RMHP	DHMC	PCPP	FFS
Blood Pressure Controlled <130/80	**2006**	**n/a**	**n/a**	**n/a**	**n/a**
Medicaid Nat'l Ave: 30.4% Medicaid 90th percentile: 41.4%	**2007**	**38.4%****	**38.9%****	**24.1%**	**19.2%**
Blood Pressure Controlled <140/90	**2006**	**n/a**	**n/a**	**n/a**	**n/a**
Medicaid Nat'l Ave: 57.3% Medicaid 90th percentile: 69.3%	**2007**	**69.3%****	**61.8%****	**32.4%**	**27.0%**
Eye Exam	**2006**	**69.6%**	**45.5%**	**32.4%**	**29.9%**
Medicaid Nat'l Ave: 51.4% Medicaid 90th percentile: 68.3%	**2007**	**63.3%****	**46.2%**	**20.4%**	**18.7%**
HbA1c Good Control	**2006**	**n/a**	**n/a**	**n/a**	**n/a**
Medicaid Nat'l Ave: 30.2% Medicaid 90th percentile: 40.9%	**2007**	**57.4%****	**27.5%**	**17.0%**	**9.5%**
HbA1C Poor Control (lower is better)	**2006**	**17.3%**	**42.3%**	**70.1%**	**74.9%**
Medicaid Nat'l Ave: 48.7% Medicaid 10th percentile: 32.1%*	**2007**	**17.8%****	**38.9%****	**74.5%**	**83.5%**
HbA1C Testing	**2006**	**90.5%**	**83.9%**	**76.6%**	**67.2%**
Medicaid Nat'l Ave: 78% Medicaid 90th percentile: 89.1%	**2007**	**91%****	**84.2%****	**49.2%**	**38.7%**
LDL-C Level <100 mg/dl	**2006**	**n/a**	**n/a**	**n/a**	**n/a**
Medicaid Nat'l Ave: 30.6% Medicaid 90th percentile: 44.1%	**2007**	**42.3%****	**48.4%****	**12.7%**	**9.5%**
LDL-C Screening	**2006**	**n/a**	**n/a**	**n/a**	**n/a**
Medicaid Nat'l Ave: 71.1% Medicaid 90th percentile: 81%	**2007**	**71.8%****	**71.3%****	**43.8%**	**36.7%**
Med Attn for Neuropathy	**2006**	**57.2%**	**58.9%**	**37.5%**	**40.1%**
Medicaid Nat'l Ave: 74.6% Medicaid 90th percentile: 85.5%	**2007**	**81.8%****	**85.2%****	**40.6%**	**42.6%**

* A lower rate indicates better performance. For poor HbA1C control, a rate in the 10th percentile is a better result than a rate in the 90th percentile.
** This rate is above the national Medicaid average for 2007

Some criteria for measurement changed between 2006 and 2007 making some of the measures not comparable between the two years.

Both DHMC and RMHP exceeded the national Medicaid average for the majority measures and attained the 90th percentile for some of the measures.

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.

Adult Controlling High Blood Pressure

Uncontrolled high blood pressure is one of the leading health problems in this country. In 2006, cardiovascular disease (CVD) was a leading cause of death for Americans, accounting for 35.3% of all deaths in the United States[24], and high blood pressure is a key 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.[25]

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.

2007 Controlling High Blood Pressure

	RMHP	DHMC	PCPP	FFS
Ages 18-45	**55.6%***	**52.2%***	**55.6%***	**40.3%**
Medicaid Nat'l Ave: 52% Medicaid 90th percentile: 64.8%				
Ages 46-85	**64.8%***	**55.5%***	**50.0%**	**36.1%**
Medicaid Nat'l Ave: 53.6% Medicaid 90th percentile: 65.5%				
All Ages Combined	**63.8%***	**55%***	**51.1%**	**36.7%**
Medicaid Nat'l Ave: 52.9% Medicaid 90th percentile: 65.8%				

- Indicates the rate is above the national Medicaid average.

Both RMHP and DHMC exceeded the national Medicaid average for all age groups.

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

[25] 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

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

Number of measures meeting or exceeding the national Medicaid average in each dimension*			
	Dimension 1: Pediatric	**Dimension 2: Women's & Maternal Health**	**Dimension 3: Chronic Disease**
DHMC (MCO)	7 out of 8	0 out of 3	1 out of 4
RMHP (MCO)	6 out of 8	3 out of 3	3 out of 4
PCPP	2 out of 8	0 out of 3	0 out of 4
FFS	2 out of 8	0 out of 3	0 out of 4

* See appendix B for list of measures used for this table

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).

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 higher quality of care 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, thereby making it easier to coordinate care. Additionally, 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.

Appendix A – 2007 HEDIS Summary Tables with Weighted Averages

2007 Colorado Medicaid HEDIS Rates with weighted averages HEDIS is a registered trademarked product of the National Committee for Quality Assurance							
HEDIS Measure	**DHMC**	**RMHP**	**PCPP**	**Fee-for-Service**	**Total HMO**	**Total Colorado Medicaid**	**2006 HEDIS National Medicaid Median**
Childhood Immunization Status	Percent of children receiving immunizations by 2 years old						
4 Diphtheria, Tetanus, Pertussis	84.8%	83.1%	61.7%	45.3%	83.4%	47.6%	76.8%
1 Measles, Mumps, Rubella	95.7%	94.1%	80.7%	60.6%	94.4%	62.8%	89.5%
3 Polio Virus Immunizations	92.4%	90.1%	66.6%	57.4%	90.5%	59.3%	84.5%
2 Haemophilus influenzae type b (Hib)	93.5%	90.3%	76.1%	59.1%	90.9%	61.2%	86.7%
3 Hepatitis B Immuniztions	93.5%	93.3%	62.9%	51.1%	93.3%	53.5%	85.2%
1 Chicken Pox Vaccine (Varicella)	95.7%	88.7%	79.1%	59.1%	90.1%	61.2%	86.4%
Pneumococcal Conjugate	87.0%	78.5%	55.5%	36.7%	80.2%	39.4%	46.6%
Combo 2 Rate -- 4 DTP or DTaP, 3 OPV or IPV, 1 MMR, 2 hepatitis B, 1 Hib, and VZV	84.8%	74.5%	49.4%	37.2%	76.5%	39.5%	70.4%
Combo 3 (DTaP, OPV, MMR, HiB, Hepatitis B, VZV, Pneumo- coccal Conjugate)	83.7%	68.0%	41.7%	28.7%	71.1%	31.1%	42.5%
Adolescent Immunizations	Percent of adolescents who received immunizations by 13 years old						
2 Measles, Mumps, Rubella	95.7%	84.0%	30.4%	27.0%	90.1%	32.5%	70.7%
1 Hepatitis B immunizations	94.6%	81.7%	22.6%	26.5%	88.4%	30.9%	63.6%
1 Chicken Pox vaccines	91.4%	59.8%	18.7%	17.3%	76.2%	22.2%	48.3%
Combo 2 - MMR, Hepatitis B, and VZV	90.3%	53.3%	14.8%	13.9%	72.5%	18.7%	42.3%
Breast Cancer Screening							
Breast Cancer Screening Age 42-51	34.4%	52.5%	27.3%	17.2%	42.3%	23.4%	N/A
Breast Cancer Screening Age 52-69	46.4%	56.2%	29.6%	18.7%	50.6%	25.5%	N/A
Breast Cancer Screening - Total	42.2%	54.9%	28.8%	18.2%	47.7%	24.8%	53.9%

HEDIS Measure	DHMC	RMHP	PCPP	Fee-for-Service	Total HMO	Total Colorado Medicaid	2006 HEDIS National Medicaid Median
Comprehensive Diabetes							
Blood Pressure Controlled <130/80 mm Hg	38.9%	38.4%	24.1%	19.2%	38.7%	22.9%	N/A
Blood Pressure Controlled <140/90 mm Hg	61.8%	69.3%	32.4%	27.0%	64.7%	33.2%	N/A
Eye Exams	46.2%	63.3%	20.4%	18.7%	52.9%	23.6%	48.6%
HbA1c Good Control (<7.0%)	27.5%	57.4%	17.0%	9.5%	39.2%	15.1%	N/A
HbA1c Poor Control (>9.0%) - Lower Numbers are Better	38.9%	17.8%	74.5%	83.5%	30.7%	74.4%	49.1%
HbA1c Testing	84.2%	91.0%	49.2%	38.7%	86.8%	47.4%	76.2%
LDL-C Level <100 mg/dL	48.4%	42.3%	12.7%	9.5%	46.0%	15.0%	32.6%
LDL-C Screening	71.3%	71.8%	43.8%	36.7%	71.5%	42.9%	80.5%
Medical Attention for Nephropathy	85.2%	81.8%	40.6%	42.6%	83.8%	47.6%	48.8%
Appropriate Medications for People with Asthma							
Ages 5-9	N/A	97.4%	91.3%	92.3%	97.4%	92.4%	88.0%
Ages 10-17	N/A	79.5%	89.5%	89.4%	79.5%	88.9%	85.6%
Ages 18-56	77.9%	85.9%	85.2%	84.8%	82.2%	84.4%	83.4%
All Ages Combined	81.5%	87.0%	87.9%	88.7%	84.6%	87.9%	85.7%
Prenatal & Postpartum Care							
Timeliness of Prenatal Care	77.4%	97.1%	54.0%	41.4%	91.9%	44.2%	79.1%
Postpartum Care	33.9%	75.9%	50.6%	35.5%	64.8%	37.4%	57.0%
Well Child Visits in the First 15 Months of Life							
No Visits	0.0%	1.6%	21.1%	20.7%	0.0%	20.3%	5.0%
1 Visit	0.0%	1.1%	9.2%	6.1%	0.0%	6.0%	3.5%
2 Visits	2.8%	3.7%	6.6%	6.1%	0.5%	6.0%	4.4%
3 Visits	5.6%	8.5%	6.6%	8.3%	0.9%	8.1%	7.1%
4 Visits	16.7%	25.5%	10.5%	10.5%	2.7%	10.3%	12.6%
5 Visits	13.9%	31.9%	10.5%	18.3%	2.3%	17.9%	18.8%
6 or More Visits	61.1%	27.7%	35.5%	30.2%	10.0%	29.8%	48.6%
Well Child Visits in the 3rd, 4th, 5th & 6th Years of Life							
	68.6%	67.1%	21.1%	26.2%	67.7%	28.7%	63.3%
Adolescent Well-Care Visits							
	35.3%	39.5%	27.5%	23.8%	37.6%	25.2%	40.6%

HEDIS Measure	DHMC	RMHP	PCPP	Fee-for-Service	Total HMO	Total Colorado Medicaid	2006 HEDIS National Medicaid Median
Appropriate Treatment for Children with Upper Respiratory Infection							
	92.5%	90.0%	85.2%	86.8%	90.7%	86.9%	82.4%
Appropriate Testing for Children with Pharyngitis							
	84.1%	80.6%	57.9%	56.3%	81.6%	58.2%	52.0%
Controlling High Blood Pressure							
Controlling High Blood Pressure - Total	55.0%	63.8%	51.1%	36.7%	59.9%	45.2%	61.4%
Controlling High Blood Pressure - Age 18 - 45	52.2%	55.6%	55.6%	40.3%	53.9%	46.4%	N/A
Controlling High Blood Pressure - Age 46 - 85	55.5%	64.8%	50.0%	36.1%	60.8%	45.0%	N/A
Cholesterol Management for people with CV conditions							
LDL-C Screening	73.0%	72.6%	67.6%	65.6%	72.8%	68.1%	N/A
LDL-C level <100 mg/dL	54.1%	43.2%	29.8%	18.6%	48.0%	29.7%	N/A

Appendix B – Measures used to Calculate How the Plans Performed

Dimension 1: Pediatric Access to Care and Preventive Care

Childhood Immunizations
- Combo 2 Rate

Adolescent Immunizations
- Combo 2 Rate

Well Child Visits in the first 15 Months of Life
- No visits (lower is better)
- 6 or more visits

Well Child Visits in the 3rd, 4th, 5th, & 6th Years of Life
Adolescent Well-Care Visits
Appropriate Treatment for Children with Upper Respiratory Infection
Appropriate Testing for Children with Pharyngitis

Dimension 2: Women's Health & Maternal Health

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

Breast Cancer Screening, all age groups

Dimension 3: Chronic Disease Management

Comprehensive Diabetes Care
- HbA1c testing
- LDL – C screening

Controlling High Blood Pressure, all age groups
Appropriate Medications for People with Asthma, all age groups
Cholesterol Management for People with Cardiovascular Conditions