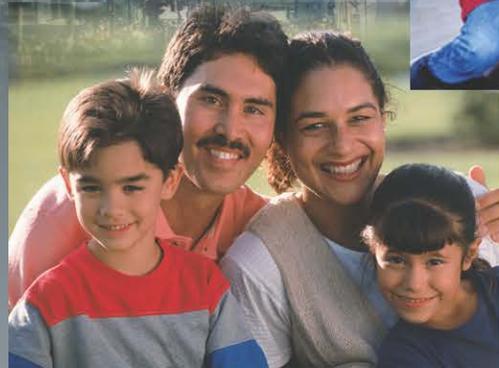


District of Columbia  
Department of Health Care Finance



**Medicaid  
Managed Care  
Organizations**



**External Quality  
Review**



**Calendar Year 2011  
Annual Technical Report**

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# District of Columbia - Department of Health Care Finance

## 2011 Annual Technical Report

### Executive Summary

#### Introduction

The District of Columbia (the District) Department of Health Care Finance (DHCF) is the single state agency responsible for managing the District's Medicaid program which provides healthcare coverage to low-income children, adults, elderly, and persons with disabilities. Approximately 168,000 (80%) District residents received healthcare services through DHCF's Medicaid managed care program in calendar year (CY) 2011; receiving healthcare services through one of two managed care organizations (MCOs) or one pre-paid inpatient health plan (PIHP)<sup>1</sup>.

As the single agency responsible for managing the District's Medicaid program, DHCF is also charged with ensuring that Medicaid beneficiaries receive care that is of high quality, accessible, and timely. To ensure this, DHCF mandates that MCOs:

- Achieve 100% compliance with federal and contractual operational requirements;
- Conduct ongoing quality improvement initiatives and submit performance results;
- Calculate and submit valid and reliable Healthcare Effectiveness Data and Information Systems (HEDIS®)<sup>2</sup> and Consumer Assessment of Healthcare Providers and Systems (CAHPS®)<sup>3</sup> data; and
- Attain National Committee for Quality Assurance (NCQA) accreditation.

The District's quality strategy for fiscal years (FY) 2012-2014 describes its goals in support of its mission "to improve health outcomes for residents of the District of Columbia by providing access to a comprehensive and cost-effective array of quality health care services." Each year DHCF also establishes a performance plan that sets forth specific initiatives aimed at attaining its goal to improve health outcomes for District residents and to support the MCOs' efforts to improve the quality of care and services provided to Medicaid enrollees. Four key initiatives pertinent to managed care are set forth in the FY 2011 Performance Plan:

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<sup>1</sup> Participating health plans are identified throughout this report as MCO A (Chartered Health Plan), MCO B (Health Services for Children with Special Needs), and MCO C (United Healthcare Community Plan).

<sup>2</sup> HEDIS® is a registered trademark of the National Committee for Quality Assurance (NCQA).

<sup>3</sup> CAHPS® is a registered trademark of the Agency for Healthcare Research and Quality (AHRQ).

- 1) Improve birth and perinatal outcomes in the Medicaid program;
- 2) Launch a resource website for case managers and perinatal providers;
- 3) Reduce adverse outcomes for people with chronic illnesses; and
- 4) Produce a Consumer Report Card to facilitate beneficiary choice in managed care.

DHCF works collaboratively with MCOs and stakeholders to identify opportunities for improvement and to initiate quality improvement activities that will impact the quality of healthcare services for Medicaid beneficiaries.

## Purpose

Federal regulations require that states contracting with managed care plans ensure that organizations, independent of both the District and the managed care plans perform an annual external review of the quality, timeliness, and access to health care services furnished by each managed care plan. In fulfillment of this requirement, DHCF contracts with the Delmarva Foundation for Medical Care, Inc. (Delmarva) to serve as the external quality review organization (EQRO). This report describes the review activities conducted by Delmarva, the methods used to aggregate and analyze information from the review activities, and draws conclusions as to the quality, timeliness, and access to healthcare services furnished by Medicaid managed care plans in the District of Columbia during CY 2011-2012.

## Methodology

Federal regulations require that three mandatory activities be performed by the EQRO using methods consistent with protocols developed by the Centers for Medicare and Medicaid Services (CMS) for conducting the activities. These protocols specify that the EQRO must conduct the following activities to assess managed care performance:

- 1) Review of MCOs' operations to assess compliance with State and federal standards for quality program operations;
- 2) Validation of State required performance measures; and
- 3) Validation of State required performance improvement projects (PIPs) that were underway during the prior 12 months.

As the EQRO, Delmarva conducted each of the required activities in a manner consistent with the protocols during CY 2011-2012. In addition to the mandatory review activities, Delmarva conducted an analysis of MCOs' validated HEDIS and CAHPS results, as well as an assessment of DHCF's progress in meeting goals set forth in its FY 2011 Performance Plan.

In aggregating and analyzing the data, Delmarva allocated standards and/or measures from each activity to domains indicative of quality, access, or timeliness to care and services. A detailed description of the methods used to conduct the activities can be found in Section I of this report. Separate report sections address each specific domain and describe the methodology and data sources used to draw conclusions for the particular area of focus. The final report section summarizes findings and recommendations to DHCF and the health plans to further improve the quality of, access to, and timeliness of health services for Medicaid members.

## Findings

### Quality

The health plans have quality systems and procedures in place to promote high quality care with well-organized approaches to quality improvement. The MCOs operate strong Quality Assessment and Performance Improvement (QAPI) programs that include annual planning, participation from providers and MCO leadership, and provide for on-going assessment of quality improvement activities. Measurement, follow-up, and reporting across the organizations was evident based on discussions with staff, reports reviewed, and presentations of activities.

The MCOs operate robust care management and disease management programs to improve access to services for members and have systems in place to identify enrollees with special health care needs. All MCOs incorporate the use of evidence-based guidelines in provider contracts and utilization management decisions, and collect, monitor, and report data related to quality of care.

In 2009, recognizing the impact of chronic illnesses and poor birth outcomes on both cost and quality of life for District residents, DHCF and the MCOs embarked on a multi-year collaborative effort to reduce adverse health outcomes for Medicaid members enrolled in MCOs. Collaborative goals are aimed at reducing adverse perinatal outcomes such as prematurity, low birth weight, and infant deaths. The chronic care collaborative goals are focused on reducing emergency department and inpatient utilization for enrollees with diabetes, asthma, congestive heart failure, and hypertension.

Goals for reduction in adverse health outcomes were set at the outset of the initiatives and are measured annually. The goal for reducing adverse perinatal outcomes for MY 2011 was set at <220 adverse events per 1,000 members. The goal for adverse events related to chronic diseases was set at < 475 per 1,000 members. The perinatal and chronic diseases collaboratives met performance goals set for MY 2011.

A subset of HEDIS effectiveness of care measures was also used to assess MCO performance in the area of quality. These measures included comprehensive care for diabetics, controlling high blood pressure, and appropriate use of medications for people with asthma. Analysis of these HEDIS measures found that health

outcomes remained below national Medicaid averages for District residents with chronic illnesses. Although both collaborative PIPs met established goals for 2011, HEDIS results indicate that health plans need to re-assess programs for members that aim to improve health status. MCOs performed below the HEDIS Medicaid average in nearly all chronic diseases indicators for diabetes and hypertension. They performed at the national Medicaid average for appropriate medications for people with asthma.

MCOs improved in nearly all measures of satisfaction for child enrollees, nearly achieving or exceeding an 80% satisfaction level in these areas of the CAHPS surveys. However, CAHPS results indicate that while members are satisfied with the quality of services for children and adolescents, satisfaction among adult enrollees has declined, particularly in the areas of customer service and care coordination.

DHCF met its performance plan goals for improving perinatal and birth outcomes and for reducing adverse events for chronic diseases. Production of the consumer report card and implementation of the perinatal resource website were not attained for CY 2011.

### **Access**

An evaluation of the MCOs' operational systems relative to access found that all MCOs conduct on-going analyses of the adequacy of provider networks, both for primary and specialty care. Member utilization of services and geo-access reports are used to identify providers with open networks to ensure that adequate numbers of providers are available to meet the needs of the population. Members receive information regarding providers, hours of operations, and the availability of transportation and translation services.

The MCOs have policies and procedures in place that promote access to women's health services and services for children with special needs through direct access to specialists. Care coordination and disease management programs are aimed at identifying members with special needs, or those who are non-compliant with care, to provide additional assistance in accessing needed services and improving health status. MCOs have written procedures in place for conducting authorizations of services employing use of evidence-based clinical guidelines for decision making and that authorization decisions are made by qualified medical personnel. Written notifications of decisions include instructions for members regarding how to appeal a decision or request a fair hearing.

HEDIS measures of adult and child access to preventive/ambulatory health services were used to evaluate outcomes for members relative to access. This analysis found that although access to primary care providers (PCPs) fell below the national HEDIS Medicaid average, improvement has been shown over the previous year's rates for the 45-64 years age range. The District performed well in measures of access for children and adolescents, particularly in lead screening, adolescent well visits, and dental visits.

The CAHPS adult satisfaction with “getting needed care” rate declined slightly from 2010 rates. However, parent/guardian satisfaction with “getting needed care” for child enrollees improved over 2010. Satisfaction levels for both adults and children fell below the national Medicaid average.

### **Timeliness**

MCOs must have procedures in place to make timely decisions in order to not disrupt or delay the provision of care or services to their members. An evaluation of the MCOs’ operational systems relative to timeliness found that all MCOs monitor authorization decisions for timeliness. Turn-around time is measured and documented with results summarized and reported to the designated committees. The health plans were able to demonstrate that there are policies and procedures in place to address timeliness standards for availability of appointments. Compliance with these standards is monitored through the use of “secret shopper” surveys.

The operational review of plans found that timeliness of notifications to members when after-hours provider availability changed was not met by one MCO. Two MCOs did not meet requirements for timely notification of denials to members and one MCO did not meet requirements for timely resolution of grievances. One MCO did not meet requirements for its providers for availability of appointments.

HEDIS measures for timeliness of prenatal care and the frequency with which pregnant women accessed on-going prenatal care (the number of expected prenatal visits) were used to evaluate member outcomes relative to timeliness of services. The District’s weighted average fell short of the national Medicaid averages for both measures. Improvement in these measures could potentially result in decreased rates of prematurity and low birth weight infants.

CAHPS results for satisfaction with getting care quickly declined for adults but improved slightly for children over the previous year’s rates. Neither rate met the national Medicaid average for satisfaction with getting care quickly.

### **Status of Recommendations from Prior Year for Health Plans and DHCF**

MCOs are required to submit corrective action plans (CAPS) for areas of non-conformance with federal and contractual operational systems. There were no mandated CAPs as the result of the previous operational systems review.

A variety of recommendations were made as a result of the previous year’s review activities for PIPs. These included recommendations specific to different MCOs to conduct a comprehensive barrier analysis; address the impact of interventions in the qualitative analysis of PIPs; expand the scope of the study question; and enhance the quantitative analysis of the population. Although these recommendations were addressed as

MCOs continued their CY 2011 PIPs, there remain opportunities for MCOs to improve both qualitative and quantitative analyses of the study populations.

As a result of prior year recommendations, MCOs were advised to conduct barrier analyses based on HEDIS/CAHPS results to identify specific areas for improvement. This analysis has been incorporated into MCOs' QAPI plans. In relation to HEDIS/CAHPS results it was also recommended that DHCF set performance requirements at the 90<sup>th</sup> percentile. DHCF has not set specific performance level requirements for HEDIS/CAHPS measures in general but has set goals for the 75<sup>th</sup> percentile on a subset of measures.

### **Best and Emerging Practices**

The health plans effectively addressed quality, timeliness and access to care issues in their respective managed care populations. The health plans implemented several best practices strategies which are noted below.

- Outsourcing high-risk pregnancy case management to a leader in specialized disease management services that focus on select, high-cost conditions.
- Linking provider payment to the completion and submission of the perinatal needs assessment form.
- Implementing preconception counseling.
- Conducting provider office outreach and continuing education programs on the use and adoption of the perinatal needs assessment form.
- Updating case management practices to include face-to-face interventions.
- Increasing the frequency and interval for case management outreach.
- Updating case management systems to capture perinatal outcomes data.
- Targeted outreach to members with high blood pressure with an emphasis on blood pressure control and promoting PCP visits.
- Implemented the Healthy Rewards incentive-based program for members to seek preventive and routine care services.
- Launched the pharmacy adherence program with direct to member reminders about refilling medications. This program monitors the frequency with which an enrollee refills medications and estimates when the next refill would be due. A text message, email, or phone call reminder is sent directly to the enrollee prior to the estimated date when the enrollee would require a medication refill. The at-risk population focused on members with asthma, diabetes and cardiovascular conditions.
- Initiated post emergency room follow-up to members.
- Implemented diabetes disease management programs.
- Targeted telephone outreach to members with a diagnosis of high blood pressure promoting PCP visits and blood pressure control.

**Opportunities for Improvement - Recommendations for MCOs**

Although each health plan is committed to delivering high quality care and services to its managed care members, opportunities exist for continued performance improvement. Based upon the evaluation of 2011 activities, Delmarva has developed the following recommendations for all health plans:

- MCOs must ensure that written policies and procedures encompass all required federal and contractual language.
- MCOs must ensure that PIP activities include a robust analysis of performance for each indicator and tie results to specific interventions. This should include a drill down of data to develop system-wide interventions that may help to sustain improvement.
- MCOs should evaluate HEDIS outcomes measures in relationship to PIP results.
- MCOs should set goals and develop interventions to achieve, at a minimum, the Medicaid average for HEDIS comprehensive diabetes care and controlling high blood pressure measures.
- MCOs should conduct a root cause analysis tied to CAHPS results to identify reasons for member dissatisfaction, particularly in the areas of customer service and care coordination.

**Opportunities for Improvement – Recommendations for DHCF**

Considering all the results for measures of quality, access and timeliness of care for the contracted health plans, Delmarva developed the following recommendations for DHCF:

- Consider designing and implementing a robust value-based purchasing plan consisting of incentives/disincentives based on MCOs' performance across a designated set of performance measures.
- Choose a subset of HEDIS, CAHPS, and operational measures that align with the District's quality strategy and set specific goals against which MCO performance will be assessed annually. These should include goals such as adult access to preventive services, child access to preventive services, quality outcomes related to chronic illnesses, care coordination, and member satisfaction.
- Use performance against the designated measures as the basis for a consumer report card.
- Re-evaluate the current collaborative PIP structure to expand the stakeholders group and add measures more closely tied to health outcomes. The collaborative PIP efforts include monthly meetings with stakeholders who have a direct interest in improving health outcomes in the District, among these MCOs, physicians, clinics, hospitals, and special interest organizations like the American Diabetes Association. The purpose of these stakeholder meetings is to identify resources and potential interventions that promote improved health outcomes. Over the course of the collaborative activities stakeholder participation has declined. In order to effect system-wide improvement it is important to receive input and recommendations from a wide variety of service providers.
- Consider gauging MCO performance separately for the collaborative PIPs. Aggregation of results may be skewed by including rates from one MCO that serves only a special needs population.

## Section I – Overview

### Introduction

The District of Columbia (the District) Department of Healthcare Finance (DHCF) is the single state agency responsible for managing the District’s Medicaid program which provides healthcare coverage to approximately 200,000 low-income children, adults, elderly, and persons with disabilities. In addition to Medicaid, DHCF administers the District’s Health Care Alliance program<sup>4</sup> for approximately 24,000 residents who are not eligible for the Medicaid program. Unlike Medicaid, this program is paid for entirely with local government dollars. Approximately 168,000 (80%) residents enrolled in Medicaid or Alliance received healthcare services through DHCF’s Medicaid managed care program in calendar year (CY) 2011; receiving healthcare services through one of two managed care organizations (MCOs) or one pre-paid inpatient health plan (PIHP) that contracts with DHCF to manage the healthcare of Medicaid beneficiaries.

DHCF requires that MCOs providing services to managed care beneficiaries are National Committee for Quality Assurance (NCQA) accredited. NCQA health plan accreditation includes two major components—an evaluation of the plan’s structure and processes to maintain and improve quality and an evaluation of the plan’s performance on process and outcomes measures related to clinical care and member satisfaction. NCQA accreditation has been widely recognized by both federal and state regulators as the gold standard for health plan operations, and information from the NCQA accreditation activities is often used to augment state strategies for assessing health plan performance.

The Code of Federal Regulations (CFR) (42 CFR § 438.202(a)) requires that each state contracting with an MCO or PIHP must have a written strategy for assessing and improving the quality of managed care services. The District’s quality strategy for fiscal years (FY) 2012-2014 describes its goals in support of its mission “to improve health outcomes for residents of the District of Columbia by providing access to a comprehensive and cost-effective array of quality health care services”<sup>5</sup>. Each year DHCF also establishes a performance plan that sets forth specific initiatives aimed at attaining its goal to improve health outcomes for District residents and to support the MCOs’ efforts to improve the quality of care and services provided to Medicaid enrollees.<sup>6</sup> Four key initiatives pertinent to managed care are set forth in the FY 2011 Performance Plan:

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<sup>4</sup> The DC Healthcare Alliance is a public program that provides free healthcare to individuals and families who live in the District, have no health insurance, and earn less than 200% of the federal poverty level (FPL).

<sup>5</sup> Department of Health Care Finance FY2012-2014 Strategic Plan Available at: <http://dhcf.dc.gov/sites/default/files/dc/sites/dhcf/publication/attachments/DHCFStrategicPlanFY12-14.pdf>

<sup>6</sup> FY 2011 Performance Plan, Department of Healthcare Finance. Available at: <http://oca.dc.gov/sites/default/files/dc/sites/oca/publication/attachments/DHCF11.pdf>

- 5) Improve birth and perinatal outcomes in the Medicaid program;
- 6) Launch a resource website for case managers and perinatal providers;
- 7) Reduce adverse outcomes for people with chronic illnesses; and
- 8) Produce a Consumer Report Card to facilitate beneficiary choice in managed care.

Federal regulations (42 CFR Part 438 Subpart E) also require that states contracting with managed care plans ensure that organizations, independent of both the District and the managed care plans, perform an annual external review of the quality, timeliness, and access to health care services furnished by each managed care plan. Protocols<sup>7</sup> describing mandatory and optional activities were issued by the Centers for Medicare and Medicaid Services (CMS) in 2002 and were updated in 2012. These protocols specify three mandatory activities that must be conducted to assess managed care performance. The mandatory activities include a:

- 2) Review of MCOs' operations to assess compliance with State and federal standards for quality program operations;
- 2) Validation of State required performance measures; and
- 3) Validation of State required performance improvement projects (PIPs) that were underway during the prior 12 months.

In fulfillment of this requirement, DHCF contracts with the Delmarva Foundation for Medical Care, Inc. (Delmarva) to serve as the external quality review organization (EQRO).

## Purpose

Federal regulations require that the EQRO aggregate information obtained through the mandatory review activities and produce an annual technical report to the District describing the MCOs' performance and the District's progress in meeting its quality goals. This report describes the mandatory activities, the methods used to aggregate and analyze information from the review activities, and draws conclusions as to the quality, timeliness, and access to healthcare services furnished by Medicaid managed care plans in the District of Columbia. In addition, the report includes findings related to the District's performance in meeting its quality strategy goals.

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<sup>7</sup>The updated EQR Protocols are available for download at: <https://www.cms.gov/Regulations-and-Guidance/Legislation/PaperworkReductionActof1995/PRA-Listing-Items/CMS-R-305.html>

## Methodology

As previously noted, federal regulations require that three mandatory activities be conducted by the EQRO using methods consistent with the EQRO Protocols developed by CMS. As the EQRO, Delmarva conducted each of the required activities in a manner consistent with the protocols. The processes for completing these activities are described below.

## Structure and Operational Systems Review

The purpose of the structure and operational systems review is to assess MCO performance against the federal regulatory requirements and DHCF contractual requirements. Key areas of focus include:

- Enrollee Rights and Protections (ER) - 42 CFR § 438 Subpart C, Enrollee Rights and Protections, details requirements to ensure that managed care enrollees have the right to receive information about available health care services, how to access services, policies and procedures relative to obtaining services, and the right to make health care decisions.
- Grievance Systems (GS) - 42 CFR § 438 Subpart F, Grievance Systems, mandates that each MCO has in effect a grievance system that meets specific requirements to ensure notification of enrollees in a timely manner for all types of grievances and appeals. Access to a grievance system affords enrollees with the right to express dissatisfaction with care or services provided by the MCO or its providers and the ability for MCOs to potentially identify issues that need to be addressed (e.g. requesting payment from enrollees, inappropriate denial of payment or services).
- Quality Assessment and Performance Improvement (QA) - 42 CFR § 438 Subpart D, Quality Assessment and Performance Improvement, sets forth MCO specifications for quality strategies to ensure the delivery of high quality health care and customer service. MCOs must measure performance (e.g. immunization rates, preventive screening rate) and use their data to improve the quality of services provided to enrollees through quality of care studies and other activities. Standards for quality, access, and timeliness of care are defined and MCOs must monitor these to ensure enrollees receive the benefits and services to which they are entitled.

The annual structure and operational systems review is conducted in accordance with the EQRO Protocol, *Assessment of Compliance with Medicaid Managed Care Regulations*, using a systematic approach consisting of pre-site, on-site, and post-site activities.

## Pre-Site

Delmarva provides the MCOs with an orientation to the review process and a reference manual, outlining the review standards against which performance is gauged. MCOs submit pertinent policies and procedures and

other written documentation in support of the standards to a secure web-based tool. Delmarva staff conducts a review of the pre-site documents and schedules on-site review dates with each MCO. The MCO staff is instructed to direct any questions or issues requiring clarification to specific Delmarva and DHCF staff.

### **On-Site**

During the on-site review, the Delmarva team conducts structured interviews with key MCO staff, observes procedures and MCO activities, and reviews any additional relevant documentation needed to assess the MCO's performance against standards. At the conclusion of the on-site review, an exit conference is held with the MCO. The purpose of the exit conference is to provide the MCO with preliminary findings, based on interviews, process demonstrations, and documentation reviewed.

### **Post-Site**

During the pre-site and on-site review phases, Delmarva documents findings for each standard. The level of compliance for each standard is rated with a review determination of met, partially met, or unmet. Each standard is scored equally. A letter is sent within 10 days of the on-site review notifying the MCO of any partially met or unmet standards and the MCO is afforded an opportunity to submit additional documentation that was not available during the review. Delmarva reviews any additional documentation, makes final determinations, and issues a preliminary report for review by DHCF. Upon DHCF approval, the MCO receives a report containing its individual review findings. Any standards, elements, or components of a standard that do not attain a fully met score, require the MCO to develop a corrective action plan (CAP).

The MCO may respond to any other issues contained in the report at its discretion within a specified time frame, and/or request a consultation with DHCF and Delmarva to clarify issues or ask for assistance in preparing a CAP. The final MCO report is posted to the MCO-specific portal.

### **Validation of Performance Measures**

The validation of performance measures activity is conducted in accordance with the EQRO Protocol, *Validation of Measures Reported by MCOs*, using a systematic approach consisting of pre-site, on-site, and post-site activities. There are two primary objectives associated with the validation process:

- 1) To evaluate the accuracy of the performance measures reported by the MCO and
- 2) To determine the extent to which the MCO followed the specifications required by the District for calculating the performance measures.

Key validation activities include:

- Review of data systems and processes used by the MCO to construct the measure rates;
- Assessment of the calculated rates for algorithmic compliance to defined specifications; and
- Verification that the reported rates are based on accurate sources of information.

**Pre-Site**

The validation process begins with a conference call between the audit team, MCOs and DHCF to confirm the measures and specifications to be used in the audit. Next, the MCO completes and submits its Information Systems Capabilities Assessment (ISCA), which describes the MCO's data systems for collecting valid, accurate data, and then calculating and reporting quality improvement data. The auditors evaluate the information in the ISCA for consistency with findings reported in previous assessments of the MCO's systems, and a site visit date is set. A tentative agenda is developed and a summary of ISCA issues is compiled.

**On-Site**

The validation team conducts an onsite visit to the MCO to investigate any potential issues identified through review of the ISCA document and to observe the systems and procedures used by the MCO to collect and produce measure data. The members of the validation team hold an entrance meeting with the MCO staff to describe the validation purpose, scope, necessary documentation, and to identify staff to be interviewed. These staff interviews provide insight into the accuracy and reliability of the reporting processes by allowing the health plan to clarify and provide more detail on any issues identified through the auditor's review of the ISCA.

During the onsite visit, the auditors review the information systems structure, protocols and procedures, and measure specific data collection methods. A preliminary review of the source code the MCO intends to use to produce the measures is also conducted. At the conclusion of these activities, the auditor meets with the MCO staff to review preliminary findings, request additional documentation if necessary, and provide guidance on areas requiring action.

**Post-Site**

Following the onsite visit, any action items are forwarded to the MCO in the form of a preliminary validation report. The MCO must demonstrate that it has the automated systems, information management practices, and data control procedures needed to ensure that all information required for performance measures reporting is adequately captured, translated, stored, analyzed, and reported. All outstanding issues must be resolved prior to the MCO calculating its final performance measures rates. A review and approval of the final source code is performed prior to the MCO calculating its final rates.

A final validation report is produced detailing MCO performance against information systems standards and measure specifications. Standards are assigned designations: Fully Compliant, Substantially Compliant, Not Valid, or Not Applicable to the MCO's measures. A final measure designation is assigned—Reportable or Not Reportable.

DHCF contracts with Delmarva to validate the accuracy and reliability of the MCOs' performance measures reported in conjunction with its mandated performance improvement projects (PIPs), *Improving Perinatal and Birth Outcomes* and *Adverse Outcomes of Chronic Diseases*.

### Validation of Performance Improvement Projects

Delmarva's PIP review methodology is based upon the CMS protocol, *Validating Performance Improvement Projects*. The validation is aimed at evaluating whether or not the PIPs are designed, conducted, and reported in a sound manner and the degree of confidence DHCF can have in the reported results.

Each MCO is required to provide the study framework and project description for each PIP at the onset of the projects. This information is reviewed to ensure that each MCO is using relevant and valid study techniques. The MCOs are required to provide updates on the progress of their PIPs in July of each year. The submissions include results of measurement activities, a status report of intervention implementations, analysis of the measurement results using the defined data analysis plan, as well as information concerning any modifications to (or removal of) intervention strategies that may not be yielding anticipated improvement. If an MCO decides to modify other portions of the project, updates to the submissions are permitted in consultation with Delmarva.

Delmarva's PIP reviewers evaluate each project submitted using a standard validation tool that employs the CMS validation methodology. This includes assessing each project in ten critical areas noted in Table I-1.

**Table I-1. 10-Step PIP Review Process**

Step	Description
1	Assess the Study Topic - The study topic/project rationale must include demographic characteristics, prevalence of disease, and potential consequences (risks) of disease. MCO specific data must support the study topic and demonstrate the need for the PIP.
2	Review the Study Question(s) - The study question should reference the study population, activity, and expected outcome. The study question guides the PIP and must be clear and answerable.
3	Review the Selected Study Indicator(s) - The study indicator(s) must be meaningful, clearly defined, and measurable.
4	Review the Identified Study Population - The study population must reflect all individuals to whom the study questions and indicators are relevant.
5	Review Sampling Methods - The sampling method must be valid and protect against bias.

Step	Description
6	Review Data Collection Procedures - The data collection procedures must use a systematic method of collecting valid and reliable data.
7	Assess Improvement Strategies - The improvement strategies, or interventions, must be reasonable and address barriers on a system-level.
8	Review Data Analysis & Interpretation of Study Results - The study findings, or results, must be accurately and clearly stated.
9	Assess Whether Improvement is Real Improvement - Project results must demonstrate real improvement.
10	Assess Sustained Improvement - Sustained improvement must be demonstrated through repeated measurements.

As Delmarva conducts PIP reviews, each component within a step is rated as *Yes*, *No*, or *Not Applicable*.

Components are then collectively reviewed to arrive at a determination of:

- Met – All required components are present.
- Partially Met – At least one, but not all components are present.
- Unmet – None of the required components are present.
- Not Applicable – None of the components are applicable.

Delmarva validated the MCOs' collaborative PIPs, *Improving Perinatal and Birth Outcomes* and *Adverse Outcomes of Chronic Diseases*, which were underway during CY 2011. A description of the collaborative PIPs and the measures specifications can be found in Appendix 1 and 2.

### HEDIS/CAHPS Measures

Healthcare Effectiveness Data and Information Systems (HEDIS®)<sup>8</sup> and Consumer Assessment of Healthcare Providers and Systems (CAHPS®)<sup>9</sup> measures have become an invaluable evaluation tool used by over 90% of health plans nationally. Because the District requires MCOs to report HEDIS and CAHPS measures and many health plans across the nation collect this data, it is possible to compare health plan performance among DHCF contracted health plans as well as to national Medicaid benchmarks.

<sup>8</sup> HEDIS® is a registered trademark of the National Committee for Quality Assurance (NCQA).

<sup>9</sup> CAHPS® is a registered trademark of the Agency for Healthcare Research and Quality (AHRQ).

HEDIS measures are designed to provide information to reliably compare the performance of health care plans across a wide array of clinical health care measures. These measures focus heavily on areas such as prenatal and postpartum care, child health preventive care such as well child visits and immunizations, management of chronic diseases, and access to care. CAHPS measures specifically address consumers' satisfaction and experience with Medicaid providers and systems of care. These measures can provide DHCF with data to comprehensively assess MCO performance in the areas of quality, access, and timeliness of healthcare services.

The District's contracted MCOs are required to submit the validated results of their HEDIS and CAHPS measures to DHCF and Delmarva. To avoid duplicative efforts, Delmarva does not re-validate these measures, but does review the audit findings and uses results of the validated HEDIS and CAHPS measures in its analysis of MCO performance. The full set of reported HEDIS and CAHPS rates can be found in Appendix 3 and 4.

### **Aggregation and Analysis of Results**

Findings from the mandatory activities as well as the MCOs' HEDIS and CAHPS measures are aggregated and analyzed by Delmarva to provide an evaluation of the MCOs' performance. Standards and/or measures from each activity are allocated to domains indicative of quality, access, or timeliness of care and services. Separate report sections address each specific domain and describe the methodology and data sources used to draw conclusions. The final report section summarizes findings and recommendations to DHCF and the health plans to further improve the quality of, access to, and timeliness of health services for Medicaid members.

## SECTION II - Quality

### Introduction

Quality, as it pertains to external quality review, is defined as “the degree to which a Managed Care Organization (MCO) or Prepaid Inpatient Health Plan (PIHP) increases the likelihood of desired health outcomes for its enrollees (as defined in 42 CFR 438.320[2]) through its structural and operational characteristics and through the provision of health services that are consistent with current professional knowledge.” (Centers for Medicare & Medicaid Services [CMS], *Final Rule: Medicaid Managed Care; 42 CFR Part 400, et. al. Subpart D - Quality Assessment and Performance Improvement*, [June 2002]).

### Purpose and Methodology

This assessment of quality encompasses health outcomes as well as the processes of care delivery (e.g., operational systems) and the experience of receiving care to assess how well the MCOs are performing in improving health outcomes for members. In evaluating quality, Delmarva assessed whether DHCF achieved its Quality Strategy goals pertinent to the managed care program. In addition, Delmarva conducted an analysis of findings from the structure and operational systems compliance review activities, validated the processes MCOs used to calculate performance measures for the PIP indicators, validated the MCOs’ processes for conducting the PIPs, and analyzed the results from the MCOs’ reported HEDIS and CAHPS rates.

### Findings

#### Quality Strategy

42 CFR Part 438.202 (a) requires that each state contracting with a MCO or PIHP must have a written strategy for assessing and improving the quality of managed care services provided by MCOs and PIHPs. The DHCF established a performance plan for FY 2011 setting forth specific quality initiatives and goals aimed at improving health outcomes for District residents. Quality initiatives focus on informing consumers and providers about the quality of services provided to Medicaid enrollees, making information about available resources more readily available to providers, and establishing goals for reducing adverse health outcomes. The findings regarding the status of the District’s FY 2011 performance goals can be found in Table II-1.

Table II-1. Quality Strategy Initiatives and Findings

Initiative	Description	Findings
<p><b>Improve birth and perinatal outcomes in the Medicaid program.</b></p> <p>The goal for measurement year (MY) 2011 is &lt;220 adverse events per 1,000 pregnancies and infants.</p>	<p>Calendar year (CY) 2011 marked the third year in a multiyear initiative to improve the health of babies born to mothers in the Medicaid program. The goal of this health care quality improvement collaboration is to reduce the rate of adverse outcomes per 1,000 pregnancies and infants by reducing the following adverse events: newborns with birth weight less than 2,500 grams; newborns of 32 weeks or less gestational age; pregnant women not tested for HIV prior to giving birth; pregnancies ending in miscarriage or fetal loss (early or late); and deaths of infants in the first year of life.</p>	<p><b>MET</b> - The rate of adverse events is 153 per 1,000 pregnancies and births for MY 2011.</p>
<p><b>Launch a resource website for case managers and perinatal providers.</b></p> <p>The goal is to launch the resource website by September 2011.</p>	<p>As part of the collaborative to reduce adverse birth outcomes, DHCF will launch a resource website for health plan case managers and other medical care providers. Resources will include information on services to meet psychosocial risk factors (such as alcohol or other substance misuse, domestic violence, and mental health problems), as well as services to support healthy babies, such as breast feeding. The site will clearly make the connection between psychosocial needs and health, and link case managers to services that are available to the mother. The services will include those based in the District, services available from national organizations, and services through virtual communities on the web.</p>	<p><b>NOT MET</b> – DHCF continues work on development of the resource website but does not expect to implement the site until the first quarter of 2013.</p>
<p><b>Reduce adverse outcomes for people with chronic diseases.</b></p> <p>The goal for MY 2011 is &lt;475 adverse events per 1,000 people with asthma, diabetes, hypertension, or congestive heart failure.</p>	<p>CY 2011 marked the third year of this multiyear initiative to improve the health of people with serious chronic illnesses. The goal of this collaborative is to reduce the rates of emergency room visits and hospital admissions for individuals with asthma, diabetes, high blood pressure, and congestive heart failure. Performance is calculated and reported annually, as the number of adverse chronic disease outcomes per 1,000 individuals with asthma, high blood pressure, diabetes and congestive heart failure. DHCF expects to see significant reductions in the rates of emergency department and acute hospital admissions among the targeted population as a result of this collaborative.</p>	<p><b>MET</b> – The rate of adverse events from chronic diseases is 458 per 1,000 people with asthma, diabetes, hypertension, or congestive heart failure for MY 2011.</p>
<p><b>Produce a consumer report card to facilitate beneficiary choice in managed care.</b></p> <p>The goal is to produce a consumer report card annually.</p>	<p>In FY 2009, DHCF developed a managed care report card, with reporting requirements for Medicaid managed care plans beginning in FY 2010. Foremost, the report card is intended to be a tool that adult Medicaid and Alliance beneficiaries and parents or guardians of children can use to help choose a managed care organization (MCO). The report card will work in concert with DHCF's other quality improvement, pay-for-performance, and managed care initiatives. Data on the report card will include information on: patient satisfaction; access to specialist doctors; how well patient care is managed; customer service; how well each plan met national quality standards; and how often each plan meets quality standards for specific health conditions.</p>	<p><b>NOT MET</b> – A report card was not produced based on MY 2011 data due to changes in MCO contracting. Only two MCOs would have had data for use in the report card, while one new MCO would have been excluded potentially limiting market share for the new MCO. In 2013 DHCF will be contracting with new MCOs and plans to resume production of the report card once MCO enrollment stabilizes.</p>

The District met two of its four quality initiative goals for FY 2011 and is currently in the process of updating its Quality Strategy.

### Structure and Operational Systems Review

Quality Assessment and Performance Improvement (QAPI) - 42 CFR § 438 Subpart D, Quality Assessment and Performance Improvement, sets forth MCO specifications for quality strategies to ensure the delivery of high quality health care and customer service. Several operational standards related to quality are evaluated during the compliance review process, including review of the Quality Improvement (QI) Program, Annual QI Review, QI Work Plan, QI Committee structure, Performance Improvement Projects (PIPs), other related documentation such as meeting minutes, and evidence of evaluation, analysis and follow-up on findings. To ensure the delivery of high quality health care and customer service, MCOs must measure performance (e.g. immunization rates, preventive screening rates) and use their data to improve the quality of services provided to enrollees through quality of care studies and other activities.

In addition to the quality assurance (QA) standards, Delmarva selected a subset of enrollee rights (ER) standards that contribute to quality systems in assessing MCOs' performance. These standards detail requirements to ensure that managed care enrollees have the right to receive information about available health care services, how to access services, policies and procedures relative to obtaining services, and the right to make health care decisions.

DHCF mandates that MCOs must achieve full compliance with all standards and must submit CAPs to address any areas that are not found to be fully compliant.

Table II-2 provides a comparison by MCO for each element within the QA and ER Standards used to assess quality. A  $\checkmark$  indicates that all requirements for the standard are fully met, an **X** indicates that all requirements were not fully met (partially met or unmet).

**Table II-2. CY 2011 Operational Standards Representative of Quality**

Standard	MCO A	MCO B	MCO C
<b>Enrollee Rights and Responsibilities</b>			
The MCO must provide to the enrollees written information in a manner and format that may be easily understood.	$\checkmark$	$\checkmark$	$\checkmark$
The MCO must provide to enrollees information on enrollee rights and responsibilities.	<b>X</b>	$\checkmark$	$\checkmark$
The MCO must provide information to enrollees regarding advance directives.	$\checkmark$	$\checkmark$	$\checkmark$

Standard	MCO A	MCO B	MCO C
The MCO must provide information to their enrollees regarding physician incentive plans.	√	√	√
The MCO must ensure that its Medicaid enrollees are not held liable for any debts of the MCO or payment for covered services.	√	√	√
The MCO may not prohibit or otherwise restrict a health care professional, acting within the lawful scope of practice, from advising or advocating on behalf of an enrollee who is his or her patient.	√	√	√
<b>Quality Assessment and Performance Improvement</b>			
Each MCO must participate in the State's efforts to promote the delivery of services in a culturally competent manner to all enrollees, including those with limited English proficiency and diverse cultural and ethnic backgrounds.	√	√	√
The MCO must implement procedures to deliver primary care to and coordinate health care services for all MCO enrollees.	√	√	√
The MCO must coordinate services for enrollees with special health care needs.	√	√	√
The MCOs must develop a treatment plan for enrollees with special health care needs who are determined through assessment to need a course of treatment or regular care monitoring.	√	√	√
The MCO must implement written policies and procedures for selection and retention of providers. The MCO must establish a uniform credentialing and re-credentialing policy in accordance with state requirements.	√	√	√
The MCO's provider selection policies must not discriminate against particular practitioners that serve high-risk populations or specialize in conditions that require costly treatment.	√	√	√
The MCO must ensure through its provider contracts that it discloses individually identifiable health information in accordance with the privacy requirements.	√	√	√
The MCO must comply with the enrollment and disenrollment requirements and limitations set forth in the regulations.	√	√	√
If the State chooses to limit disenrollment, the MCO contracts must provide that a recipient may request disenrollment.	√	√	√
The MCO must maintain procedures for disenrollment.	√	√	√
The MCO must maintain grievance procedures.	√	√	√
The MCO must maintain grievance systems.	√	√	√

Standard	MCO A	MCO B	MCO C
The MCO must oversee and is accountable for any functions and responsibilities that it delegates to any subcontractor.	√	√	√
The MCO must maintain practice guidelines.	√	√	√
The MCO must conduct performance improvement projects that achieve, through ongoing measurements and intervention, significant improvement, sustained over time, in areas of clinical and non-clinical care, and is expected to have a favorable effect on health outcomes and enrollee satisfaction.	√	√	√
The MCO must submit performance measurement data.	√	√	√
The MCO must have in effect mechanisms to detect both under- and over-utilization of services.	√	√	√
The MCO must have in effect mechanisms to assess the quality and appropriateness of care furnished to enrollees with special health care needs.	√	√	√
The MCO must maintain a health information system that collects, analyzes, integrates, and reports data. The system must provide information on areas including, but not limited to, utilization, grievances, and disenrollment for other than loss of Medicaid eligibility.	√	√	√

Delmarva conducted a full operational systems review of each MCO. Overall, the District's Medicaid MCOs performed well in the area of quality. Operational systems reviews found that:

- The health plans have quality systems and procedures in place to promote high quality care. The MCOs presented robust and well-organized approaches to quality improvement. Policies, procedures, and operational plans presented during the compliance review were well defined and documented. Measurement, follow-up, and reporting across the organizations were evident based on discussions with staff, reports reviewed, and presentations of activities.
- The MCOs operate strong QAPI programs that include annual planning, participation from providers and MCO leadership, and provide for on-going assessment and quality improvement activities. Monthly meetings are held to evaluate progress on QAPI goals and an annual evaluation against performance on those goals is conducted. All MCOs have systems in place to identify enrollees with special health care needs, incorporate the use of evidence-based guidelines in provider contracts and utilization management decisions, and collect, monitor, and report data related to quality of care.
- The MCOs operate robust care management and disease management programs to improve access to services for members who have experienced a critical event or diagnosis that requires the extensive use of resources and who need help navigating the system to facilitate appropriate delivery of care and services.

- One MCO did not fully meet requirements to provide enrollees information on enrollee rights and responsibilities regarding the right to be free from any form of restraint or seclusion used as a means of coercion, discipline, convenience, or retaliation, as specified in other federal regulations on the use of restraints and seclusion. At the time of the on-site review, neither the Member Rights and Responsibilities Policy and Procedure or the Member Handbook used the required language for this component. Although this same MCO could demonstrate that procedures are in place to comply with federal and contractual requirements, written policies and procedures were not comprehensive. The MCO has been instructed to revise its written policies and procedures to include all required federal and contractual language.

### **Performance Measures Validation**

Given that the health plans' HEDIS/CAHPS rates are audited by NCQA certified auditing firms, the District chose to direct EQRO activities to auditing and validating the MCOs' information systems and processes for collecting data and reporting collaborative PIP measurement results. The goal of conducting the performance measures validation activity is to evaluate the accuracy and reliability of the measures produced and reported by the MCOs and to determine the extent to which the MCOs followed specifications established by DHCF for calculating and reporting the collaborative measures rates. The accuracy and reliability of the reported rates is essential to ascertaining whether the MCOs' quality improvement efforts have resulted in improved health outcomes.

Three key validation activities are conducted:

- 1) Review of data systems and processes used by the MCO to construct the measure rates;
- 2) Assessment of the calculated rates for algorithmic compliance to defined specifications; and
- 3) Verification that the reported rates are based on accurate sources of information.

Information from several other sources is also used to satisfy validation requirements. These sources include, but are not limited to the MCOs':

- Information Systems Capabilities Assessment (ISCA);
- Claims systems and processes (including lab, dental, and pharmacy data);
- Data warehouse overview;
- Documentation (e.g., IS specifications, data dictionaries, program source code, data queries, record review tools, policies and procedures) for review prior to or during the onsite validation;
- Observations resulting from onsite information system queries and MCO staff interviews;
- Source code review; and
- Information provided subsequent to the onsite visit to address any deficiencies and/or outstanding issues.

The ISCA tool was reviewed and used to assess the MCOs on factors essential in the performance measure process, including data integration, data control, and calculation of rates. Based on the information provided, the MCOs have a satisfactory process for data integration, appropriate data control, and adequate interpretation of two measures specifications.

Source code was reviewed which included an assessment and validation of the diagnosis, procedure, pharmacy, and revenue codes to ensure these codes were correctly applied. Additionally, the source code review determined that members of the denominators were correctly selected from the populations, time parameters were accurate and numerators included appropriate parameters and members.

Table II-3 provides the MCOs' validation results for the Adverse Perinatal and Birth Outcomes measures and Adverse Outcomes of Chronic Diseases measures.

**Table II-3. Audit Designation Table for Adverse Perinatal and Birth Outcomes and Adverse Outcomes of Chronic Diseases**  
Performance Measure: Adverse Perinatal Outcomes and Adverse Outcomes of Chronic Diseases

Validation Component	Audit Element	Validation Results		
		MCO A	MCO B	MCO C
Documentation	Data integration and control procedures are assessed to determine whether the MCO has the appropriate processes and documentation in place to extract, link, and manipulate data for accurate and reliable measure rate construction. Measurement procedures and programming specifications including data sources, programming logic, and computer source codes are documented.	Met	Met	Met
Denominator	Validation of the denominator calculations for the performance measures is conducted to assess the extent to which the MCO used appropriate and complete data to identify the entire population and to the degree to which the MCO followed the measures specifications for calculating the denominator.	Met	Met	Met
Numerator	The validation of the numerator determines if the MCO correctly identified and evaluated all qualifying medical events for appropriate inclusion or exclusion in the numerator for each measure and followed the measure specifications for calculation of the numerator.	Met	Met	Met
Reporting	Validation of reporting assesses whether the MCOs followed the District's requirements for reporting the measures rates and followed specifications. The District requires the MCOs to report the denominator, specific numerator events, and calculated final rates. A final determination is made as to whether the MCO is fully compliant (FC), substantially compliant (SC), or non-compliant (NC).	FC	FC	FC

In conducting the validation activities for the Adverse Perinatal and Birth Outcomes measures, auditors concluded that all MCOs used valid and reliable methods for calculating performance measures.

- All Adverse Perinatal and Birth Outcomes measures received a designation of fully compliant and “reportable.”

In conducting the validation activities for the Adverse Outcomes of Chronic Diseases, auditors concluded that all MCOs used valid and reliable methods for calculating performance measures.

- All Adverse Outcomes of Chronic Diseases measures received a designation of fully compliant and “reportable.”

### **Performance Improvement Projects**

Each MCO is required to annually conduct PIPs that are designed to achieve, through ongoing measurements and interventions, significant improvement in clinical or non-clinical care areas that are expected to have a favorable effect on health outcomes. The MCOs’ PIPs must include measurements of performance using objective quality indicators, the implementation of system interventions to achieve improvement in quality, evaluation of the effectiveness of the interventions, and planning and initiation of activities for increasing or sustaining improvement. The validation activity is performed to assess whether the MCOs’ PIPs are designed, conducted, and reported in a sound manner, and the degree of confidence DHCF can have in the reported results.

DHCF made some key decisions at the outset of these initiatives. First, they decided to measure progress for the three participating plans as a whole rather than to compare and contrast their performance. The intent was to establish a baseline for 2008 and then gauge progress of the managed care effort as a whole to drive improvement on a population rather than health plan basis. All plans are required to participate, but they are not competitively scored on these initiatives. Second, the collaborative PIPs are set up as 2009-2011 programs, with expectations that Medicaid will build on their progress after 2011.

The collaborative stakeholders meet on a monthly basis. Both collaborative work groups have sought community participation to solicit input from providers and consumers and to expand their influence beyond the formal membership. Each plan documents its individual progress as a component of its PIP reporting. Individual MCO rates are weighted and aggregated to produce a District-wide MCO performance rate.

### **Improving Perinatal and Birth Outcomes**

Prenatal care is one of the most effective interventions for improving birth outcomes. Regular prenatal care, early and on-going throughout pregnancy, is a key factor in preventing prematurity and low birth weight. By using early risk assessment tools, providers can improve and sometimes prevent costly outcomes. The cost of care for premature and low birth weight infants not only puts a strain on current budgets, but the costs associated with long-term care as well for children born with developmental delays.

DHCF, in collaboration with the District's three Medicaid MCOs and other stakeholders, embarked on a multiyear initiative to improve perinatal birth outcomes for District residents. The goal of the collaborative is to reduce the rate of adverse perinatal events that occur for pregnancies in the measurement year, as well as among infants, ages 0-365 days, in the same measurement year. Data from CY 2008 were used to calculate the baseline rate and MY2011 represents the third re-measurement period for the collaborative. A description of the PIP and associated measures specifications can be found in Appendix 1.

Table II-4 provides findings for each MCO against the 10 validation steps for the Adverse Perinatal and Birth Outcomes PIP.

**Table II-4. Perinatal PIP Validation Results**

Step	Description	Review Determinations		
		MCO A	MCO B	MCO C
1	Assess the Study Topic	Met	Met	Met
2	Review the Study Question(s)	Met	Met	Met
3	Review the Selected Study Indicator(s)	Partially Met	Met	Met
4	Review the Identified Study Population	Met	Met	Met
5	Review Sampling Methods	NA*	NA*	NA*
6	Review Data Collection Procedures	Met	Met	Met
7	Assess Improvement Strategies	Met	Met	Met
8	Review Data Analysis & Interpretation of Study Results	Partially Met	Met	Met
9	Assess Whether Improvement is Real Improvement	Met	Met	Met
10	Assess Sustained Improvement	Met	Met	Met

\*No sampling was required. The entire eligible population was assessed.

Each MCO's perinatal PIP was reviewed against all components contained within the 10 step review process to assess the validity of the MCOs' PIP processes. Findings are as follows:

- Step 5, sampling methods, is not applicable for the perinatal study as the entire eligible population was assessed and MCOs were not required to conduct sampling.
- One MCO received a partially met determination for Step 3, study indicators, because the plan did not follow through on the recommendations made in the previous year to include specific adverse event (outcome) indicators in line with collaborative requirements and to facilitate comparison of MCO project results.

- The same MCO that received a partially met for Step 3 also received a partially met finding for Step 8, data analysis. The project analysis did not adequately address or analyze performance against previous rates for the indicators.

In addition to the validation activity, Delmarva conducted analysis and trending of reported indicators from baseline to MY 2011 utilizing MCO validated rates. The MCO weighted average for adverse events improved from the baseline rate of 328 (32.80%) adverse events per 1,000 pregnancies and births in 2008 to 153 (15.30%) adverse outcomes per 1,000 in MY 2011.

Trended rates for adverse perinatal outcomes can be found in Table II-5.

**Table II-5. Trended Rates for Adverse Perinatal Outcomes**

Measurement Year	Adverse Perinatal Outcomes			
	MCO A	MCO B	MCO C	DC Weighted Average
Baseline: MY 2008	50.10%	22.22%	6.64%	32.83%
	501	222	66	328
Re-measurement 1: MY 2009	29.22%	36.97%	10.32%	23.14%
	292	370	103	231
Re-measurement 2: MY 2010	25.64%	25.15%	17.39%	23.15%
	256	251	174	232
Re-measurement 3: MY 2011	13.46%	35.84%	20.62%	15.30%
	135	358	206	153

\*Comparison of rates between MCOs is not advised as no population risk adjustment has been conducted. Only validated rates were used to assess improvement.

The District's MCOs have made strides in reducing adverse perinatal outcomes for Medicaid members.

- The rate of HIV testing improved substantially over the course of the collaborative. Lack of maternal HIV testing has been the largest contributor to the adverse perinatal health outcomes rates since initiation of the PIP. In spite of growth in the perinatal denominator population, this was the area most impacted by the MCOs' PIP efforts. In 2008, lack of HIV testing was noted in approximately 82% of the eligible population. In 2011, the rate decreased to approximately 34% of the eligible population. Improvement in the HIV testing rate contributed significantly to the overall reduction in adverse perinatal outcomes District-wide.
- The rate of miscarriage and stillbirth decreased significantly, also contributing to improvement. The rate of fetal deaths dropped from baseline (10.03%) to 2011 (3.86%).

- The rate of preterm births and low birth weight babies increased over the course of the collaborative. In baseline year 2008 the rate of pregnancies resulting in low birth weight babies was 1.51%. In 2011, the rate increased to 4.38% of Medicaid MCO deliveries. Likewise the rates for preterm births increased from baseline (.41%) to 2011 (1.45%).

### **Adverse Outcomes of Chronic Diseases**

The DHCF, recognizing the impact of chronic illnesses on both costs to the Medicaid program and health outcomes for the District's Medicaid residents, embarked on a multi-year collaborative effort to reduce adverse health outcomes of chronic diseases for Medicaid members enrolled in MCOs. The PIP focuses on measuring changes in the health outcomes of individuals with asthma, diabetes, hypertension, and congestive heart failure to improve the health of people in the DC Medicaid and Alliance<sup>10</sup> programs enrolled in MCOs. A description of the PIP and associated measures specifications can be found in Appendix 2.

The adverse outcomes of chronic diseases indicator measures the rate of occurrence of emergency room visits and hospitalizations for Medicaid and Alliance managed care plan enrollees with any one, or combination, of the diagnoses of asthma, diabetes, hypertension, or congestive heart failure. This proxy measure for adverse outcomes is founded in the belief that people with chronic illnesses who are well managed and have an ongoing source of medical care will have fewer emergency department visits or hospitalizations which may indicate poor control or complications secondary to the chronic disease.

Each MCO's chronic diseases PIP was reviewed against all components contained within the 10 step review process used to evaluate the validity of the MCOs' PIP activities. Validation results for the Adverse Outcomes of Chronic Diseases PIP can be found in Table II-6.

**Table II-6. Chronic Diseases PIP Validation Results**

Step	Description	Review Determinations		
		MCO A	MCO B	MCO C
1	Assess the Study Topic	Met	Met	Met
2	Review the Study Question(s)	Met	Met	Met
3	Review the Selected Study Indicator(s)	Met	Met	Met
4	Review the Identified Study Population	Met	Met	Met
5	Review Sampling Methods	NA*	NA*	NA*
6	Review Data Collection Procedures	Met	Met	Met
7	Assess Improvement Strategies	Met	Met	Met

<sup>10</sup> One MCO participating in the collaborative serves only SSI eligible Medicaid members up to 26 years of age.

Step	Description	Review Determinations		
		MCO A	MCO B	MCO C
8	Review Data Analysis & Interpretation of Study Results	Partially Met	Partially Met	Met
9	Assess Whether Improvement is Real Improvement	Met	Met	Met
10	Assess Sustained Improvement	Partially Met	Unmet	Partially Met

\*No sampling was required. The entire eligible population was assessed.

Step 5, sampling methods, is not applicable for the chronic care study as the entire eligible population identified with one or more of the chronic conditions (asthma, diabetes, hypertension, and congestive heart failure) was assessed. Other findings include:

- Two MCOs received a partially met determination for Step 8, data analysis, because their project analyses were not adequate. One MCO did not provide a trend analysis or make comparisons to the indicator goals. The other MCO identified a significant increase in adverse outcomes and did not conduct an analysis to draw any specific conclusions about the substantial decline in performance. The analysis should address the significant increase and identify causes for performance. This aids the MCO in the barrier identification and intervention development process.
- None of the MCOs received a designation of “met” for Step 10, sustained improvement. Two MCOs were able to sustain improvement in at least one indicator and received a “partially met” assessment, while the other MCO received an “unmet” designation as it was unable to sustain any improvement in the project measures; the MCO’s rate of adverse events has escalated throughout the course of the PIP.

Delmarva conducted analysis and trending of reported indicators from baseline to MY 2011 utilizing MCO validated rates. The MY 2011 rate of adverse outcomes of chronic diseases was 458 per 1,000 members with one or more of the identified chronic illnesses. Although the MCOs demonstrated increased incidences of adverse health outcomes of chronic diseases, the collaborative achieved its goal of less than 475 adverse outcomes per 1,000 members with one or more chronic illnesses.

Table II-7 provides trended rates for adverse outcomes of chronic diseases over the course of the collaborative.

Table II-7. Trended Rates for Adverse Outcomes of Chronic Diseases

Measurement Year	Adverse Outcomes of Chronic Diseases			
	MCO A	MCO B	MCO C	DC Weighted Average
Baseline: MY 2008	30.22%	67.95%	56.27%	34.26%
	302	679	563	343
Re-measurement 1: MY 2009	40.47%	81.70%	86.82%	48.98%
	405	817	868	490
Re-measurement 2: MY 2010	27.42%	58.06%	68.65%	38.84%
	274	581	687	388
Re-measurement 3: MY 2011	34.95%	89.91%	72.11%	45.84%
	350	899	721	458

\*Comparison of rates between MCOs is not advised as no population risk adjustment has been conducted. Only validated rates were used to assess improvement.

While the collaborative goal was met for MY 2011, there has been little improvement year over year in the rates of adverse health outcomes of chronic diseases. In spite of achieving the District-wide MCO goal, the overall District weighted average for adverse chronic disease outcomes increased by 7 percentage points over the previous year and by nearly 11 percentage points between the PIP baseline and the MY 2011 rate.

An assessment of the MCOs' populations noted that:

- Members with one of the chronic diseases that were the subject of the collaborative accounted for 34.54% of the MCOs' enrollment. The rate of members with chronic illnesses has remained proportionate to the increase in MCO enrollment.
- Emergency department utilization was highest on average for asthmatics, at 42.42% of the chronic diseases population.
- Across all years, the hospitalization rate for asthmatics was only 19.24% of the chronic diseases population. High emergency department utilization for members with asthma, without a corresponding high rate of hospitalizations, indicates that there is the potential to decrease emergency department visits by focusing on medication compliance, coordination of care, and better access to ongoing primary care physicians for these members.
- Of those members diagnosed with a chronic illness, those with hypertension had the highest rate for hospitalizations, at 47.68%. These members also had high emergency department utilization at 38.80% of the chronic diseases population. A focus on this group has the potential to decrease District-wide rates of adverse health outcomes of chronic diseases.

**HEDIS/CAHPS**

As previously noted, all District Medicaid MCOs are required to calculate and submit audited HEDIS and CAHPS measures to DHCF. Delmarva selected and analyzed results from HEDIS effectiveness of care measures and CAHPS measures reported by the MCOs to assess quality. The full set of HEDIS and CAHPS measures and corresponding MCO rates can be found in Appendix 3.

Managing chronic disease is a complex matter requiring care coordination between the health plan and the servicing providers. Research has shown that following evidence-based health care guidelines for treatment and monitoring of these individuals can improve health status. HEDIS measures provide information on the health status of the MCOs’ chronic diseases populations and can be used in conjunction with the MCOs’ chronic diseases adverse event rates to assess how well the MCOs are performing in improving health status for those living with a chronic illness.

*Comprehensive Diabetes Care*

In 2008, diabetes ranked as the sixth leading cause of death in the District of Columbia. According to 2010 estimates by the CDC, nearly 25.8 million people in the United States have diabetes. 8.3% of the District’s residents reported having been diagnosed with diabetes.<sup>11</sup> Diabetes can lead to significant health complications such as heart disease, kidney disease, blindness and amputations. Controlling levels of blood glucose, blood pressure, and cholesterol are key to preventing diabetes related complications.

Table II-8 provides MCO and District weighted averages for the comprehensive diabetes care measures.

**Table II-8. HEDIS Comprehensive Diabetes Care**

HEDIS Measure	MCO A		MCO B		MCO C		DC Weighted Average		National HEDIS Medicaid Average	National HEDIS 75th Percentile
	MY 2010 %	MY 2011 %	MY 2010 %	MY 2011 %	MY 2010 %	MY 2011 %	MY 2010 %	MY 2011 %	MY 2011 %	MY 2011 %
Comprehensive Diabetes Care - Blood Pressure Control (<140/90) - % members 18–85 years of age with HTN whose BP was adequately controlled	52.19	40.12	NA	38.71	26.28	48.72	41.62	43.17	60.84	69.82

<sup>11</sup> Diabetes in the District of Columbia, District of Columbia Department of Health, Diabetes Prevention and Control Program. Available at: <http://www.doh.dc.gov/sites/default/files/dc/sites/doh/Diabetes>.

HEDIS Measure	MCO A		MCO B		MCO C		DC Weighted Average		National HEDIS Medicaid Average	National HEDIS 75th Percentile
	MY 2010 %	MY 2011 %	MY 2010 %	MY 2011 %	MY 2010 %	MY 2011 %	MY 2010 %	MY 2011 %	MY 2011 %	MY 2011 %
Comprehensive Diabetes Care - Eye Exams - % of members who had a retinal eye exam	57.48	53.74	NA	48.39	39.78	52.37	50.66	53.22	53.23	61.56
Comprehensive Diabetes Care - HbA1c Testing - % members 18–75 years of age with Hemoglobin A1c (HbA1c) testing	80.11	76.97	NA	70.97	72.63	78.10	77.06	77.33	82.4	86.9
Comprehensive Diabetes Care - HbA1c Control <7%	25.93	31.32	NA	NA	20.54	26.50	23.73	29.60	35.42	41.64
Comprehensive Diabetes Care - HbA1c Control <8%	43.43	44.72	NA	35.48	29.74	40.15	37.85	43.04	47.97	55.70
Comprehensive Diabetes Care - Poor HbA1c Control >9% (lower rate is better)	46.72	47.22	NA	61.29	60.4	53.10	52.3	49.4	43.18	34.55
Comprehensive Diabetes Care - LDL-C Screening - % of members who were screened for low density lipoproteins	73.54	71.98	NA	54.84	72.45	74.45	73.12	72.75	74.93	80.83
Comprehensive Diabetes Care - LDL-C Control (LDL-C<100 mg/dL) - % of members whose LDL is within the recommended range	32.85	21.5	NA	29.03	26.28	29.01	30.32	24.22	35.20	41.01
Comprehensive Diabetes Care - Medical Attention for Nephropathy (Kidney Disease)	81.39	81.38	NA	38.71	78.83	83.03	80.35	81.7	77.80	82.74

\*NA denotes that the MCO did not have a large enough population to report on this measure.

The District’s MCO weighted averages for MY 2011 improved over 2010 rates in 7 of the 9 indicators but lagged behind the HEDIS Medicaid average for all but two indicators.

- The District met the HEDIS national average for eye exams for diabetics.
- The District performed slightly better than the HEDIS Medicaid average for medical attention for nephropathy.
- The District’s weighted averages for LDL-C screening and control declined from 2010 rates and did not meet the national Medicaid averages for these two indicators.

*Controlling High Blood Pressure*

According to CDC statistics approximately 1 in 3 adults in the United States has hypertension and less than 46% of people with hypertension have their blood pressure under control (<140/90). Costs associated with hypertension are estimated to be nearly \$131 billion annually for the nation.<sup>12</sup> Lifestyle modifications such as increased exercise and reduced salt intake can help individuals control their blood pressure. In addition, antihypertensive pharmacotherapy is effective in controlling blood pressure and has been associated with reduced incidence of stroke, heart attack, heart failure, and kidney disease. In 2003, 25.2% of adult residents of the District of Columbia reported having been told that they had hypertension.<sup>13</sup>

Table II-9 provides the MCOs’ and District weighted averages for 2010 and 2011 for controlling high blood pressure.

**Table II-9. HEDIS Controlling High Blood Pressure**

HEDIS Measure	MCO A		MCO B		MCO C		DC Weighted Average		National HEDIS Medicaid Average	National HEDIS 75th Percentile
	MY 2010 %	MY 2011 %	MY 2010 %	MY 2011 %	MY 2010 %	MY 2011 %	MY 2010 %	MY 2011 %	MY 2011 %	MY 2011 %
Controlling High Blood Pressure	NA	28.95	NA	NA	35.28	42.34	35.28	33.58	56.76	63.64

\*NA denotes that the MCO did not have a large enough population to report on this measure.

<sup>12</sup> “High Blood Pressure Facts”. Centers for Disease Control and Prevention. Available at: [www.cdc.gov/bloodpressure/facts.htm](http://www.cdc.gov/bloodpressure/facts.htm)

<sup>13</sup> “High Blood Pressure by State”, Centers for Disease Control and Prevention. Behavioral risk Factor Surveillance System Survey Data. Available at: [http://www.StateMaster.com/graph/hea\\_hig\\_blo\\_pre-health-high-blood-pressure](http://www.StateMaster.com/graph/hea_hig_blo_pre-health-high-blood-pressure).

The District weighted average for controlling high blood pressure did not meet the HEDIS Medicaid average for MY 2011.

- Of note, two MCOs were unable to report rates for 2010 and one MCO was unable to report rates for 2011 due to small population sizes.
- One MCO improved by nearly seven percentage points between MY 2010 and 2011.

*Use of Appropriate Medication for People with Asthma*

According to the CDC approximately 1 in 12 adults and 1 in 10 children in the United States had asthma in 2009. It is one of the most common chronic diseases in childhood and accounts for about \$50 billion in associated medical costs annually. The overall prevalence of asthma in the District is estimated to be 18.0%.<sup>14</sup> Asthma is a chronic lung disease that can be life-threatening if not properly managed. However, research has shown that the use of evidence-based guidelines can significantly improve management of the disease. These guidelines recommend specific pharmacotherapy aimed at controlling asthma exacerbations in the long term as well as medications for quick relief of acute asthma symptoms. The HEDIS indicator, use of appropriate medications for people with asthma, measures how well providers are adhering to these treatment guidelines. MCOs' and the District's weighted averages for 2010 and 2011 are found in Table II-10.

**Table II-10. HEDIS Appropriate Medications for People with Asthma**

HEDIS Measure	MCO A		MCO B		MCO C		DC Weighted Average		National HEDIS Medicaid Average	National HEDIS 75th Percentile
	MY 2010 %	MY 2011 %	MY 2010 %	MY 2011 %	MY 2010 %	MY 2011 %	MY 2010 %	MY 2011 %	MY 2011 %	MY 2011 %
Use of Appropriate Medications for People with Asthma - Total	87.53	86.37	95.43	88.59	78.38	80.63	87.63	85.77	85.03	88.27

<sup>14</sup> "Asthma Fact Sheet", American Lung Association. Available at: [www.lung.org/lung-disease/asthma/resources/facts-and-figures/asthma-children-fact-sheet.html](http://www.lung.org/lung-disease/asthma/resources/facts-and-figures/asthma-children-fact-sheet.html).

The District's weighted average for appropriate medications for people with asthma exceeded the national Medicaid average.

- One MCO did not meet the national Medicaid average but did improve over its 2010 rate.
- Two MCOs exceeded the national Medicaid average.

Adult enrollees and parents/guardians of child enrollees are asked annually to rate the quality of care and services provided by MCOs in which they are enrolled. Tables II-11 and II-12 provide results from the adult and child CAHPS surveys for CY 2010 and 2011 on measures representative of quality.

**Table II- 11 . Adults CAHPS (Experience with Care) Representative of Quality**

Adult CAHPS	MCO A		MCO B		MCO C		DC Average		National CAHPS Medicaid Average	National CAHPS 75th Percentile
	MY 2010 %	MY 2011 %	MY 2010 %	MY 2011 %	MY 2010 %	MY 2011 %	MY 2010 %	MY 2011 %	MY 2011 %	MY 2011 %
How Well Doctors Communicate	88.00	91.90	NA	NA	88.39	88.04	88.20	89.44	87.83	89.98
Customer Service	81.90	82.10	NA	NA	78.41	73.87	80.16	78.13	80.42	83.19
Shared Decision Making	58.80	64.40	NA	NA	58.99	55.74	58.90	59.71	60.89	63.79
Health Promotion and Education	60.60	65.10	NA	NA	60.34	62.46	60.34	62.63	59.36	62.5
Coordination of Care	76.40	78.30	NA	NA	74.07	69.44	75.24	73.94	77.52	80.99
Rating of Health Care	64.60	68.00	NA	NA	68.06	67.05	66.33	67.70	69.91	73.53
Rating of Personal Doctor	79.70	83.30	NA	NA	79.85	81.08	79.78	81.41	77.12	79.49
Rating of Specialist	71.60	73.50	NA	NA	77.59	71.72	74.60	74.27	77.66	80.31
Rating of Health Plan	72.80	77.10	NA	NA	69.80	68.13	71.30	71.68	73.49	77.27

\*NA indicates fewer than 100 responses were available.

The District average for adult health plan enrollees' satisfaction with the services provided by their MCOs improved overall between 2010 and 2011.

- There was a slight decline in the District average for satisfaction with customer service and coordination of care.
- One MCO improved in all indicators, while one MCO declined in 6 of the 9 indicators.
- The District average exceeded the National CAHPS Medicaid average for how well doctors communicate and health promotion and education.
- The District average for personal doctor rating exceeded the National CAHPS 75<sup>th</sup> Percentile.

Table II- 12. Child CAHPS (Experience with Care) Representative of Quality

Child CAHPS	MCO A		MCO B		MCO C		DC Average		National CAHPS Medicaid Average	National CAHPS 75th Percentile
	MY 2010 %	MY 2011 %	MY 2010 %	MY 2011 %	MY 2010 %	MY 2011 %	MY 2010 %	MY 2011 %	MY 2011 %	MY 2011 %
How Well Doctors communicate	92.40	90.20	92.00	93.00	87.54	91.10	90.64	90.77	91.81	93.45
Customer Service	78.20	81.00	87.00	85.00	72.74	73.80	79.31	79.91	83.02	84.71
Shared Decision Making	62.70	67.10	94.00	94.00	66.07	66.27	74.26	77.49	68.45	70.7
Health Promotion and Education	59.70	68.00	72.00	74.00	64.67	64.50	65.46	68.63	63.9	67.77
Coordination of Care	72.50	70.60	84.00	84.00	72.28	74.60	76.26	77.10	79.71	82.54
Rating of Health Care	76.00	83.20	83.00	84.00	76.19	83.13	78.40	81.90	83.04	85.1
Rating of Personal Doctor	85.00	89.30	87.00	91.00	83.97	89.35	85.32	88.12	86.46	88.58
Rating of Specialist	69.00	77.30	82.00	80.00	NA	NA	75.50	79.77	82.35	86.09
Rating of Health Plan	70.90	79.90	82.00	85.00	79.27	81.76	77.39	81.59	87.34	86.61

\*NA indicates fewer than 100 responses were available.

MCOs improved in the level of satisfaction with the experience of care for parents/guardians of child enrollees in all areas, exceeding or nearly exceeding an 80% satisfaction level in 6 of the 9 measures.

- MCOs performed well in the areas of communication with doctors, customer service, and satisfaction with health care and health care providers.
- The District average met or exceeded the National CAHPS 75<sup>th</sup> Percentile for shared decision making, rating of personal doctors, and health promotion and education.

## Quality Conclusions

The health plans have quality systems and procedures in place to promote high quality care and presented well-organized approaches to quality improvement. Policies, procedures, and operational plans presented during the compliance review were well defined and documented. Measurement, follow-up, and reporting across the organizations was evident based on discussions with staff, reports reviewed, and presentations of activities. The MCOs operate strong QAPI programs that include annual planning, participation from providers and MCO leadership, and provide for on-going assessment and quality improvement activities.

All MCOs have systems in place to identify enrollees with special health care needs, incorporate the use of evidence-based guidelines in provider contracts and utilization management decisions, and collect, monitor, and report data related to quality of care. The MCOs operate robust care management and disease management programs to improve access to services for members who have experienced a critical event or diagnosis that requires the extensive use of resources and who need help navigating the system to facilitate appropriate delivery of care and services, as well as to bring non-compliant members into care.

Health outcomes remained below national Medicaid averages for District residents with chronic illnesses. Although both collaborative PIPs met established goals for 2011, HEDIS results indicate that MCOs performed below the HEDIS Medicaid average in nearly all chronic diseases indicators for diabetes and hypertension. MCOs performed at the national Medicaid average for appropriate medications for people with asthma.

MCOs improved in nearly all measures of satisfaction for child enrollees with 6 of the 9 indicators nearly achieving or exceeding an 80% satisfaction level. However, CAHPS results also indicate that while members are satisfied with the quality of services for children and adolescents, satisfaction among adult enrollees has declined, particularly in the areas of customer service and care coordination.

## SECTION III - Access

### Introduction

An assessment of access considers the degree to which individuals are inhibited or facilitated in their ability to gain entry to and to receive care and services from the health care system. Factors influencing this ability include geographic, architectural, transportation, and financial considerations, among others. Access (or accessibility), as defined by the National Committee for Quality Assurance (NCQA), is “the extent to which a patient can obtain available services at the time they are needed. Such service refers to both telephone access and ease of scheduling an appointment, if applicable. The intent is that each organization provides and maintains appropriate access to primary care, behavioral health care, and member services.”

Access to healthcare is the foundation of good health outcomes. Factors influencing access include provider availability, geographic proximity, transportation, and policies that enhance access. Availability is the extent to which the organization provides the appropriate types and number of practitioners and providers necessary to meet the needs of its members within defined geographical areas.

### Purpose and Methodology

Access depends on many factors, including availability of appointments, the patient’s ability to see a specialist, adequacy of the healthcare network, and availability of transportation and translation services. The purpose of this review is to ensure that MCO procedures do not result in barriers that might restrict Medicaid enrollees’ access to necessary medical care and services that promote optimal health outcomes. In addition, MCO policies and procedures must demonstrate that the MCO can adequately monitor access and have programs in place that enhance an enrollee’s ability to access necessary services, such as transportation and interpretive services.

Delmarva evaluates access to care and services for MCO enrollees through a review of the MCOs’ structure and operational systems, analysis of HEDIS measures of access (such as preventive care and well visits), and analysis of CAHPS survey results regarding member satisfaction with access.

### Findings

#### Structure and Operational Systems Review

MCOs must have policies and procedures in place that promote access to care and services for enrollees. The specific operational policies examined addressed areas such as: second opinions; PCP selection/assignment; services provided by the Member Services Department; Member Education and Outreach; access to covered services, emergency care, direct access services (such as family planning) and out

of network care. Members who find it easy to access primary care are more likely to receive recommended screening and preventative exams.

Table III-1 provides a comparison of individual MCO performance on each standard. A  $\checkmark$  indicates that all requirements for the elements were fully met and an **X** indicates that all requirements were not fully met (partially met or unmet).

**Table III-1. Operational Standards Representative of Access**

Standard	MCO A	MCO B	MCO C
<b>Quality Assessment and Performance Improvement</b>			
The MCO must maintain and monitor a network of appropriate providers that is supported by written agreements and is sufficient to provide adequate access to all services covered under the contract.	$\checkmark$	$\checkmark$	$\checkmark$
Each MCO, consistent with the scope of the contracted services, must provide female enrollees with direct access to a women's health specialist, provide for a second opinion, cover out-of-network services they are unable to provide, and must coordinate payment with out-of-network providers.	$\checkmark$	$\checkmark$	$\checkmark$
The MCO must have a mechanism in place to allow enrollees with special health care needs to directly access a specialist.	$\checkmark$	$\checkmark$	$\checkmark$
The MCO must have a written procedure in place for processing requests for initial and continuing authorizations of services.	$\checkmark$	$\checkmark$	$\checkmark$
The MCO must notify the requesting provider and give the enrollee written notice of any decision by the MCO to deny a service authorization request or to authorize a service in an amount, duration, or scope that is less than requested.	$\checkmark$	$\checkmark$	$\checkmark$
The MCO must not structure compensation to individuals or entities that conduct utilization management activities so as to provide incentives for the individual or entity to deny, limit, or discontinue medically necessary services to any enrollee.	$\checkmark$	$\checkmark$	$\checkmark$
The MCO must cover and pay for emergency services and post-stabilization care services.	$\checkmark$	$\checkmark$	$\checkmark$
The MCO must implement written policies and procedures for selection and retention of providers.	$\checkmark$	$\checkmark$	$\checkmark$
The MCO's provider selection policies and procedures must not discriminate against particular practitioners that serve high-risk populations or specialize in conditions that require costly treatment.	$\checkmark$	$\checkmark$	$\checkmark$

The MCOs perform well in structure and operational standards that can potentially impact access to care for members.

- MCOs conduct on-going analyses of the adequacy of network providers, both for primary and specialty care. Member utilization of services and geo-access reports are used to identify providers with open networks to ensure that adequate numbers of providers are available to meet the needs of the population. These reports are also used by MCOs when assessing gaps in provider networks for recruitment purposes. Credentialing and re-credentialing policies and procedures also ensure that appropriate providers are selected and that providers are not unnecessarily excluded because of the high risk populations they serve.
- Coverage of emergency services and post-stabilization care is communicated to members in the Member Handbook. Policies and procedures, as well as the Member Handbook, define these services.
- The MCOs have policies and procedures in place that promote access to women's health services and services for children with special needs through direct access to specialists. Care coordination and disease management programs are aimed at identifying members with special needs, or those who are non-compliant with care, to provide additional assistance in accessing needed services and improving health status.
- MCOs have written procedures in place for conducting authorizations of services employing use of evidence-based clinical guidelines for decisions. Authorization decisions are made by qualified medical personnel and written notifications of decisions include instructions for members regarding how to appeal a decision or request a fair hearing. In addition, these procedures are communicated to all members in the Member Handbook.

### **HEDIS/CAHPS Measures**

Preventive health care measures provide information about how well a health plan provides services that maintain good health and prevent illness in adults and children. Children's access to health care is an important determinant of better health outcomes as well as readiness to learn. A regular source of care is vitally important in terms of providing appropriate preventive services and/or diagnosing and treating acute/chronic conditions in a timely manner. From a cost perspective, regular access to preventive services can decrease the need for emergency and specialized services.

Table III-2 provides information on the MCOs' performance on measures of access.

Table III-2. Preventive Care and Well Visits

HEDIS Measure	MCO A		MCO B		MCO C		DC Weighted Average		National HEDIS Medicaid Average	National HEDIS 75th Percentile
	MY 2010 %	MY 2011 %	MY 2010 %	MY 2011 %	MY 2010 %	MY 2011 %	MY 2010 %	MY 2011 %	MY 2011 %	MY 2011 %
Adults' Access to Preventive/Ambulatory Health Services (20-44)	77.65	75.45	78.48	79.57	62.52	67.40	73.47	73.07	79.89	85.43
Adults' Access to Preventive/Ambulatory Health Services (45-64)	82.14	82.09	NA	NA	71.50	78.27	76.66	80.58	85.94	89.94
Childhood Immunization Status - Combo 2 - % of children with 4 diphtheria, tetanus and pertussis (DTaP), 3 polio (IPV), 1 measles, mumps and rubella (MMR), 2 H influenza type B (Hib), 3 hepatitis B (HepB), and 1 chicken pox (VZV) vaccines by 2nd birthday	83.70	81.75	84.29	81.18	74.48	79.08	82.36	81.12	74.51	80.78
Childhood Immunization Status - Combo 3 - % of children with Combo 2 and 4 PCV vaccines by 2nd birthday	80.54	74.21	82.86	72.94	68.49	72.99	78.83	73.90	70.69	77.49
Lead Screening in Children - % of members aged 1-5 years with a lead screening	81.02	84.67	84.21	88.24	78.13	80.29	80.75	83.74	67.71	81.48
Children and Adolescents' Access To PCP (12-24 Months)	95.19	95.66	97.01	98.73	91.92	92.92	94.71	94.98	96.07	97.87
Children and Adolescents' Access To PCP (25 Months-6 Yrs)	87.72	89.26	94.07	91.44	81.14	85.97	87.03	88.52	88.16	91.36
Children and Adolescents' Access To PCP (7-11 Yrs)	93.01	92.72	96.38	96.20	86.48	89.00	92.24	92.40	89.54	92.86
Children and Adolescents' Access To PCP (12-19 Yrs)	84.81	85.53	91.96	92.39	81.19	83.63	85.07	85.93	87.90	91.57

HEDIS Measure	MCO A		MCO B		MCO C		DC Weighted Average		National HEDIS Medicaid Average	National HEDIS 75th Percentile
	MY 2010 %	MY 2011 %	MY 2010 %	MY 2011 %	MY 2010 %	MY 2011 %	MY 2010 %	MY 2011 %	MY 2011 %	MY 2011 %
Well-Child Visits in the first 15 Months of Life (6 or more visits) - % of members who had six or more well-child visits with a PCP during their first 15 months of life	66.39	55.47	68.42	53.06	43.26	58.15	62.28	56.01	61.67	70.59
Well-Child Visits in the 3rd, 4th, 5th, and 6th Years of Life - % of members 3-6 years who had 1 or more well-child visits with a PCP	81.71	75.41	86.91	86.62	67.60	74.35	79.95	75.49	71.94	79.32
Adolescent Well-Care Visits - % of members 12-21 who had at least 1 well-care visit with a PCP or an OB/GYN	54.26	59.61	63.26	68.37	43.55	53.28	53.59	58.86	49.65	57.58
Immunizations for Adolescents - Combination 1	76.74	81.92	82.02	84.62	74.56	80.00	76.90	81.39	60.39	70.83
Annual Dental Visit (Total-Age 2-21)	59.50	66.87	67.61	73.73	55.20	60.45	59.44	65.73	45.78	58.88

In the area of adult access to preventive/ambulatory care, the District fell below the Medicaid national average. However, in areas pertinent to children and adolescents’ access to preventive/ambulatory care, the District performed well.

- The District weighted average exceeded the Medicaid average for four measures pertaining to children and adolescents:
  - Immunizations Combo 2
  - Immunizations Combo 3
  - Access to PCP (ages 25 mos. – 6 years)
  - Access to PCP (ages 7-11 years)
  - Well child visits (ages 3-6 years)
- The District weighted average exceeded the Medicaid 75<sup>th</sup> percentile for four measures:
  - Lead screening (ages 1-5 years)
  - Adolescent well-care visits (ages 12-21 years)

- Immunizations for adolescents (ages 12-21 years)
- Annual dental visits (ages 2-21 years)
- The District’s weighted average fell below the Medicaid average for three measures:
  - Access to PCP (ages 12 mos. – 24 mos.)
  - Access to PCP (12-19 years)
  - Well-Child Visits in the first 15 Months of Life (6 or more visits)

The District has made steady progress in improving access to preventive/ambulatory care for children and adolescents.

Table III-3 provides a comparison of CY 2010 and 2011 performance on the CAHPS measure related to getting needed care.

**Table III-3. Adult and Child CAHPS Satisfaction with Access to Care**

Adult and Child CAHPS	MCO A		MCO B		MCO C		DC Weighted Average		National CAHPS Medicaid Average	National CAHPS 75th Percentile
	MY 2010 %	MY 2011 %	MY 2010 %	MY 2011 %	MY 2010 %	MY 2011 %	MY 2010 %	MY 2011 %	MY 2011 %	MY 2011 %
Getting Needed Care - Adults	71.10	69.40	NA	NA	70.12	65.24	70.61	68.25	75.57	80.58
Getting Needed Care - Child	60.10	71.90	76.00	74.00	NA	66.98	68.05	72.22	79.31	84.09

\*NA indicates fewer than 100 responses were available.

Analysis of CAHPS results related to access found that:

- Satisfaction with access to needed care for adults fell overall approximately 2 percentage points from CY 2010 due to decreases in the satisfaction rates for both MCOs serving adult enrollees.
- Satisfaction with access for children rose approximately 4 percentage points overall from 2010 with one MCO seeing close to a 12 percentage point increase in satisfaction.
- Adult and Child rates for getting needed care were below the National CAHPS Medicaid Average indicating an opportunity for continued improvement.

### Access Conclusions

All MCOs conduct on-going analyses of the adequacy of provider networks, both for primary and specialty care. Member utilization of services and geo-access reports are used to identify providers with open networks

to ensure that adequate numbers of providers are available to meet the needs of the population. Members receive information regarding providers, hours of operations, and the availability of transportation and translation services.

The MCOs have policies and procedures in place that promote access to women's health services and services for children with special needs through direct access to specialists. Care coordination and disease management programs are aimed at identifying members with special needs, or those who are non-compliant with care, to provide additional assistance in accessing needed services and improving health status. MCOs have written procedures in place for conducting authorizations of services employing use of evidence-based clinical guidelines for decision making and that authorization decisions are made by qualified medical personnel. Written notifications of decisions include instructions for members regarding how to appeal a decision or request a fair hearing. In addition, these procedures are communicated to all members in the Member Handbook.

Although access to PCPs fell below the national HEDIS Medicaid average, measures for access to preventive and well-child services have shown improvement over prior years with 9 of the 12 child measures achieving or exceeding the national Medicaid averages. In concert with the adult access to PCP measure, adult satisfaction with "getting needed care" also declined slightly over 2010 rates. Parent/guardian satisfaction with "getting needed care" for child enrollees improved over 2010 by four percentage points.

## Section IV – Timeliness

### Introduction

The Institute of Medicine (IOM) considers timeliness to be one of the six domains of healthcare quality. The IOM defines timeliness as “reducing waits and sometimes harmful delays.” Standards for timeliness are incorporated into MCO contracts and define the length of time in which an enrollee would be able to schedule or receive an appointment. Timeframes are based on the urgency of need and the presence or absence of health symptoms.

Timeliness of care can affect utilization, including both appropriate care and over- or underutilization of services and contribute to enrollee complaints and dissatisfaction. Presumably, the earlier an enrollee sees a medical professional, the sooner he or she can receive necessary healthcare services. Postponing needed care may result in adverse health outcomes and increases in hospitalization and emergency room utilization.

Timeliness can also be a marker for the adequacy and effectiveness of policies and procedures that promote health outcomes through communication and resolution of complaints and grievances so as to not disrupt or delay healthcare services.

### Purpose and Methodology

In assessing timeliness, Delmarva selected operational standards from enrollee rights, quality assessment and performance improvement, and grievance systems. The enrollee rights standards pertain to information that MCOs must provide to members within specified timeframes. Quality standards include availability of appointments and timeliness of authorization decisions, while grievance system standards relate to the availability and timeliness of processes for resolving complaints, grievances, and appeals. In conjunction with the analysis of operational elements, Delmarva used findings from HEDIS and CAHPS measures to draw conclusions regarding the timeliness of services provided by MCOs.

### Findings

#### Structure and Operational Systems

Timeliness is an important factor for evaluating MCO performance because organizations must have procedures in place to make timely decisions in order not to disrupt or delay the provision of care or services to their members. Several operational standards related to timeliness are evaluated during the compliance review process, including review of the MCOs’ credentialing and re-credentialing procedures, authorization activities, grievance and appeals procedures, and monitoring availability of providers and appointments. Access to a grievance system affords enrollees with the right to express dissatisfaction with care or services

provided by the MCO or its providers and the ability for MCOs to potentially identify issues that need to be addressed.

Table IV-1 provides a comparison by MCO for each operational standard relating to timeliness. A  $\checkmark$  indicates that all requirements for the elements were fully met and an **X** indicates that all requirements were not fully met (partially met or unmet).

**Table IV-1. Operational Standards Representative of Timeliness**

Standard	MCO A	MCO B	MCO C
<b>Enrollee Rights and Responsibilities</b>			
The MCO must make information on providers available to the enrollees upon enrollment and annually thereafter, and give enrollees reasonable notice of any changes regarding providers.	$\checkmark$	<b>X</b>	$\checkmark$
The MCO must inform enrollees about grievance and fair hearing procedures to the enrollee upon enrollment, annually, and at least 30 days prior to any change.	$\checkmark$	$\checkmark$	$\checkmark$
The MCO must inform enrollees about benefits available to the enrollee upon enrollment, annually, and at least 30 days prior to any change in benefits.	$\checkmark$	$\checkmark$	$\checkmark$
The MCO must inform enrollees about after-hours and emergency coverage and do so upon enrollment, annually, and at least 30 days prior to any change.	<b>X</b>	$\checkmark$	$\checkmark$
The MCO must provide information to its enrollees on grievance, appeal, and fair hearing procedures and time frames in a State-developed or State-approved description.	$\checkmark$	$\checkmark$	$\checkmark$
<b>Quality Assurance and Performance Improvement</b>			
The MCO must furnish services timely and must meet and require its providers to meet state standards for timely access to care and services, taking into account the urgency of need for services.	$\checkmark$	$\checkmark$	<b>X</b>
The MCO must provide timely authorization decisions. The MCO must expedite authorization decisions and provide notice as expeditiously as the enrollee's health condition requires and no later than 3 working days after receipt of the request.	$\checkmark$	$\checkmark$	$\checkmark$
The MCO must provide for timely disenrollment. The MCO must assure that the effective date of a disenrollment be no later than the first day of the month following the month in which the enrollee files the request.	$\checkmark$	$\checkmark$	$\checkmark$

Standard	MCO A	MCO B	MCO C
<b>Grievance Systems</b>			
The MCO must have a system in place for enrollees that includes a grievance process, an appeal process, and access to the State's Fair Hearing system.	√	√	√
The MCO's grievance process must be timely.	√	√	√
The MCO must maintain written requirements regarding the filing of a grievance.	√	√	√
The MCO must provide a written notice of action for grievances that meets state and federal language and format requirements.	√	√	√
The MCO must adhere to the State's regulations regarding the content of the notice of action (NOA).	√	√	√
The MCO's written notice of action for termination, suspension, or reduction of previously authorized Medicaid-covered service must be mailed timely.	X	X	√
The MCO must handle grievances and appeals according to regulations.	√	√	√
The MCO must dispose of each grievance and resolve each appeal, and provide notice as expeditiously as the enrollee's health condition requires, within State-established time frames.	√	√	X
The MCO must notify any enrollee who has entered a grievance or appeal of the outcome of his or her case.	√	√	√
The MCO must provide an expedited review process for appeals.	√	√	√
The MCO must provide information about the grievance system to all providers and subcontractors at the time they enter into a contract.	√	√	√
The MCO must maintain records of grievances and appeals and must review the information as part of the State's Quality Strategy.	√	√	√
The MCO must continue to provide benefits to the enrollee while the appeal and the State Fair Hearing are pending.	√	√	√
The MCO may recover the cost of the services furnished to the enrollee while the appeal is pending if the final resolution of the appeal is adverse to the enrollee.	√	√	√
The MCO must authorize or provide the disputed services promptly, and as expeditiously as the enrollee's health condition requires, if the MCO or the State Fair Hearing officer reverses a decision to deny, limit, or delay services that were not furnished	√	√	√

Standard	MCO A	MCO B	MCO C
while the appeal was pending.			
The MCO or the State must pay for those services, in accordance with State policy and regulations, if the MCO or the State Fair Hearing officer reverses a decision to deny authorization of services and the enrollee received the disputed services while the appeal was pending.	√	√	√

The following findings were noted in assessing MCOs for compliance with operational standards related to timeliness of services for members:

- One MCO did not meet requirements for notifying members of changes to the provider network in a timely manner. The MCO did not provide timely notification to members when availability of after-hours services changed.
- One MCO did not meet requirements for its providers for timely access to care and services, taking into account the urgency of need for services. An evaluation of the MCO’s provider surveys found that appointments for asymptomatic health assessments including adult physicals and EPSDT services were compliant only 70% of the time for appointments within 3 weeks. Appointments for routine symptomatic care were available within 10 business days 80% of the time.
- Two MCOs did not mail timely notifications of denials in accordance with the District’s requirements.
- One MCO did not meet timeliness requirements for resolving grievances.

All MCOs that failed to achieve 100% compliance on operational standards are required to submit a CAP indicating the steps they will take to resolve the non-compliant issues.

**HEDIS/CAHPS Measures**

*Prenatal Care*

The leading causes of infant mortality in the U.S. are congenital malformations, disorders related to pre-term birth and low-birth weight, and Sudden Infant Death Syndrome (SIDS). Prenatal visits in the first trimester provide an opportunity for early risk assessment, health promotion and medical, nutritional and psychosocial interventions that can promote good clinical outcomes for both mother and child. On-going prenatal care visits provide opportunities for early identification of complications that can put both mother and child at risk for poor outcomes.

Table IV-2 provides MCOs’ performance on timeliness of prenatal care for pregnant women and the frequency at which women receive prenatal care visits.

Table IV-2. Timeliness and Frequency of Prenatal Care

HEDIS Measure	MCO A		MCO B		MCO C		DC Weighted Average		National HEDIS Medicaid Average	National HEDIS 75th Percentile
	MY 2010 %	MY 2011 %	MY 2010 %	MY 2011 %	MY 2010 %	MY 2011 %	MY 2010 %	MY 2011 %	MY 2011 %	MY 2011 %
Timeliness of Prenatal Care - % of deliveries where a prenatal care visit occurred in the first trimester or within 42 days of enrollment in the health plan.	69.27	75.91	35.85	53.23	69.34	64.48	68.54	72.58	82.71	90.23
Frequency of Ongoing Prenatal Care (41-60%)	NA	15.09	16.98	25.81	16.51	16.86	16.55	16.72	8.20	10.34
Frequency of Ongoing Prenatal Care (61-80%)	NA	31.39	32.08	22.58	16.32	20.38	17.75	24.06	14.45	17.79
Frequency of Ongoing Prenatal Care (>= 81%)	NA	32.36	22.64	16.13	27.95	30.57	27.47	30.44	60.93	72.99

\*NA denotes that the MCO did not have a large enough population to report on this measure.

The District’s weighted average fell short of the national Medicaid average for timeliness of prenatal care. The District’s weighted average for the frequency with which women were obtaining on-going prenatal care (at least 81% of the recommended prenatal care visits) was half the national Medicaid average. However, 54.5% of pregnant women received >61% of the recommended number of prenatal care visits compared to 75% for the Medicaid average.

Table IV-3 provides information regarding members’ satisfaction with getting care quickly.

Table IV-3. Adult and Child CAHPS Satisfaction with Timeliness of Care

Adult and Child CAHPS	MCO A		MCO B		MCO C		DC Weighted Average		National CAHPS Medicaid Average	National CAHPS 75th Percentile
	MY 2010 %	MY 2011 %	MY 2010 %	MY 2011 %	MY 2010 %	MY 2011 %	MY 2010 %	MY 2011 %	MY 2011 %	MY 2011 %
Getting Care Quickly - Adults	76.70	70.80	NA	NA	74.91	72.29	75.81	72.67	80.37	83.63
Getting Care Quickly - Child	81.00	81.20	87.00	88.00	74.94	76.43	80.98	81.51	87.32	90.31

\*NA indicates fewer than 100 responses were available.

Adults' satisfaction with getting care quickly fell approximately three percentage points from the CY 2010 rate, while satisfaction with getting care quickly for children rose slightly from 2010 to 2011.

- The District averages for getting care quickly for both adults and children were below their respective National CAHPS Medicaid averages indicating opportunities for improvement.

### Timeliness Conclusions

All MCOs monitor authorization decisions for timeliness. Turn-around time is measured and documented with results summarized and reported to the designated Quality Improvement and Utilization Management committees. The health plans were able to demonstrate that there were policies and procedures in place to address the major requirements for timeliness. Timeliness standards for availability of appointments were documented in the relevant procedures and are monitored through surveys.

One MCO did not meet requirements for notifying members of changes to the provider network in a timely manner. The MCO did not provide timely notification to members when availability of after-hours services changed. One MCO did not meet requirements for its providers for timely access to care and services, taking into account the urgency of need for services. An evaluation of the MCO's provider surveys found that appointments for asymptomatic health assessments including adult physicals and EPSDT services were compliant only 70% of the time for appointments within 3 weeks. Appointments for routine symptomatic care were available within 10 business days 80% of the time. Two MCOs did not mail timely notifications of denials in accordance with the District's requirements. One MCO did not meet timeliness requirements for resolving grievances.

HEDIS measures for timeliness of prenatal care and the frequency with which pregnant women accessed ongoing prenatal care fell short of the national Medicaid averages. CAHPS results for satisfaction with getting care quickly declined approximately three percentage points for adults, while satisfaction with getting care quickly rose approximately four percentage points for children.

## SECTION V – Summary

### *Quality*

The health plans have quality systems and procedures in place to promote high quality care and presented well-organized approaches to quality improvement. Policies, procedures, and operational plans presented during the compliance review were well defined and documented. Measurement, follow-up, and reporting across the organizations was evident based on discussions with staff, reports reviewed, and presentations of activities. The MCOs operate strong QAPI programs that include annual planning, participation from providers and MCO leadership, and provide for on-going assessment and quality improvement activities. Monthly meetings are held to evaluate progress on QAPI goals and an annual evaluation against performance on those goals is conducted.

All MCOs have systems in place to identify enrollees with special health care needs, incorporate the use of evidence-based guidelines in provider contracts and utilization management decisions, and collect, monitor, and report data related to quality of care. The MCOs operate robust care management and disease management programs to improve access to services for members who have experienced a critical event or diagnosis that requires the extensive use of resources and who need help navigating the system to facilitate appropriate delivery of care and services, as well as to bring non-compliant members into care.

In spite of findings from the operational systems reviews showing that all health plans have quality systems and procedures in place to deliver high quality care, health outcomes remained below national Medicaid averages for District residents with chronic illnesses. Although both collaborative PIPs met established goals for 2011, HEDIS results indicate that health plans need to re-assess programs for members that aim to improve health status. MCOs performed below the HEDIS Medicaid average in nearly all chronic diseases indicators for diabetes and hypertension. They performed at the national Medicaid average for appropriate medications for people with asthma.

MCOs improved in nearly all measures of satisfaction for child enrollees with 6 of the 9 indicators nearly achieving or exceeding an 80% satisfaction level. However, CAHPS results also indicate that while members are satisfied with the quality of services for children and adolescents, satisfaction among adult enrollees has declined, particularly in the areas of customer service and care coordination.

### *Access*

An evaluation of the MCOs' operational systems relative to access found that all MCOs conduct on-going analyses of the adequacy of provider networks, both for primary and specialty care. Member utilization of services and geo-access reports are used to identify providers with open networks to ensure that adequate numbers of providers are available to meet the needs of the population. Members receive information regarding providers, hours of operations, and the availability of transportation and translation services.

The MCOs have policies and procedures in place that promote access to women's health services and services for children with special needs through direct access to specialists. Care coordination and disease management programs are aimed at identifying members with special needs, or those who are non-compliant with care, to provide additional assistance in accessing needed services and improving health status. MCOs have written procedures in place for conducting authorizations of services employing use of evidence-based clinical guidelines for decision making and that authorization decisions are made by qualified medical personnel. Written notifications of decisions include instructions for members regarding how to appeal a decision or request a fair hearing. In addition, these procedures are communicated to all members in the Member Handbook.

- MCOs met all operational standards relative to access.

Although access to PCPs fell below the national HEDIS Medicaid average, measures for access to preventive and well-child services have shown improvement over prior years with 9 of the 12 child measures achieving or exceeding the national Medicaid averages. In concert with the adult access to PCP measure, adult satisfaction with "getting needed care" also declined slightly over 2010 rates. Parent/guardian satisfaction with "getting needed care" for child enrollees improved over 2010 by four percentage points.

### ***Timeliness***

Timeliness is an important factor for evaluating MCO performance because organizations must have procedures in place to make timely decisions in order not to disrupt or delay the provision of care or services to their members. An evaluation of the MCOs' operational systems relative to timeliness found that all MCOs monitor authorization decisions for timeliness. Turn-around time is measured and documented with results summarized and reported to the designated QI/UM committee. The health plans were able to demonstrate that there were policies and procedures in place to address the major requirements for timeliness. Timeliness standards for availability of appointments were documented in the relevant procedures and are monitored through surveys.

- One MCO did not meet requirements for notifying members of changes to the provider network in a timely manner. The MCO did not provide timely notification to members when availability of after-hours services changed.
- One MCO did not meet requirements for its providers for timely access to care and services, taking into account the urgency of need for services. An evaluation of the MCO's provider surveys found that appointments for asymptomatic health assessments including adult physicals and EPSDT services were compliant only 70% of the time for appointments within 3 weeks. Appointments for routine symptomatic care were available within 10 business days 80% of the time.
- Two MCOs did not mail timely notifications of denials in accordance with the District's requirements.
- One MCO did not meet timeliness requirements for resolving grievances.

HEDIS measures for timeliness of prenatal care and the frequency with which pregnant women accessed on-going prenatal care fell short of the national Medicaid averages. CAHPS results for satisfaction with getting care quickly declined approximately three percentage points for adults, while satisfaction with getting care quickly rose approximately four percentage points for children.

### **Status of Recommendations from Prior Year for Health Plans and DHCF**

The CY 2010 assessment of quality, access and timeliness yielded several recommendations to the MCOs as well as to DHCF. The status of those recommendations is described below.

MCO A was advised to:

- Remove the invalid diagnosis related groupings (DRGs) from data extracts used to calculate HEDIS relative resource unit (RRU) measures. The MCO removed the invalid DRGs and was able to successfully report RRU rates for CY 2011.
- Correct issues with sampling for the HEDIS controlling blood pressure measure that resulted in a “not reportable” audit finding for CY 2010. The MCO implemented appropriate changes to its sampling methodology for CY 2011 and was able to report valid rates for this measure.
- Strive to improve HEDIS rates to achieve the National HEDIS Medicaid average for all measures. While the MCO showed improvement across almost all measures, it continues to lag below the Medicaid National average for many measures.
- Update perinatal project information to include health plan specific prevalence information. This recommendation was acted on by the MCO as evidenced by submission of additional data and analysis of its membership by race, ethnicity, and geographic location.
- Complete a full barrier analysis annually and to include specific adverse outcomes indicators as part of the PIP analysis. Although the MCO responded to the recommendation with additional indicator data and some barrier analysis, it did not complete a thorough analysis of barriers. The MCO must conduct a full and thorough barrier analysis as a component of its CY 2012 PIP reporting.
- Identify reasons for lack of HIV screening information in administrative data when compared to medical record findings. The MCO conducted provider education regarding appropriate documentation of testing and worked with its laboratory vendor to ensure that data were available for integration into the MCO’s reporting system.

MCO B was advised to:

- Expand on its use of supplemental data to include non-hybrid measures. The MCO identified the availability of supplemental data that could be integrated into existing data systems to more efficiently capture services without resorting to resource intensive data abstraction. In an effort to achieve efficiencies, the MCO is working with providers to increase the rate of electronic data interchange (EDI) for claims transactions. The MCO has improved this rate to approximately 80% in CY 2012.

- Broaden the focus of its study question and not just limit it to case management activities. The MCO did revise its study question and provided a broader scope and project aim.
- Address the impact of interventions in its qualitative PIP analysis. The MCO addressed this through a qualitative analysis of the prevalence of member learning limitations and the impact of this on the effectiveness of their message to members.

MCO C was advised to:

- Focus on improving the overall HEDIS/CAHPS performance results and implement interventions aimed at improving HEDIS rates to exceed the 25<sup>th</sup> percentile. The MCO implemented provider and member education and increased use of supplemental data to more accurately capture services. As a result, the MCO improved in nearly all HEDIS measures over the prior year.
- Revise its performance goals for PIPs, as some of the targets had been met. The MCO did not revise its performance goals for CY 2011.
- Enhance its quantitative PIP analysis and narrative description for the chronic diseases PIP. The MCO addressed its performance and provided statistical testing, but an opportunity still exists to provide a more comprehensive and robust analysis of the population.

All MCOs were advised to:

- Conduct barrier analyses on HEDIS/CAHPS measures where performance dropped from the prior year. The MCOs conducted an analysis of HEDIS/CAHPS performance as a component of their QAPI program activities in CY 2011.
- Work with DHCF to improve member contact information. Through the collaborative workgroups, DHCF and the MCOs have established a focused work group to identify ways to improve member contact information. This group is working to develop a memorandum of understanding with the Department of Health to promote sharing of member level data.
- Identify mechanisms that would enable early identification of pregnant members. The MCOs have initiated requirements for providers to complete standardized perinatal risk assessments. To increase compliance with this, MCOs have implemented incentives for timely completion and submission of this form by providers. Additionally, MCOs have focused on working with vendors to improve the speed at which the MCO receives notification of pregnancy related laboratory testing.
- Conduct a thorough analysis of collaborative measures and direct resources toward interventions that would improve results in the at-risk population. The MCOs continued to participate in the District collaborative efforts and included the collaborative efforts as key components of their QAPI Programs.
- Consider complete implementation of health homes as a mechanism to integrate care and services for high-risk members. MCOs are not contractually required to initiate or participate in the development of health homes. However, at least one MCO was exploring implementation of health homes for high-risk members. To date, this MCO has not implemented a health home program.

DHCF was advised to:

- Continue to coordinate the District-wide collaborative PIPs and encourage cooperation and sharing of health plan best practices to improve care and services provided to Medicaid managed care recipients. Collaborative stakeholders continue to meet monthly to discuss progress and interventions aimed at decreasing adverse events.
- Encourage health plans to evaluate and report on the reasons for low HEDIS/CAHPS performance, particularly on key performance measures such as women's health, well child services, and chronic care measures. DHCF discusses results of HEDIS/CAHPS performance with MCOs on an informal basis but does not currently require MCOs to submit CAPs based on performance results.
- Consider setting the District-wide HEDIS® targets to achieve the Medicaid 90th percentile particularly for Effectiveness of Care measures for women's health, children and members afflicted with chronic disease. The District has set the 75<sup>th</sup> percentile as the performance goal for some HEDIS measures.
- Continue to monitor health plan performance on the District's collaborative PIPs periodically throughout the measurement year and annually. The collaborative PIPs have continued through 2011 and MCOs will report on indicators for the CY 2012 measurement year.
- Continue to provide consumers with information regarding health plan performance on a variety of measures. DHCF will resume development of the consumer report card in 2014 once new health plans are established and have reportable data available.

### **Best and Emerging Practices**

The health plans effectively and collaboratively addressed quality, timeliness and access to care issues in their respective managed care populations. The health plans implemented several best practices strategies which are noted below.

- Outsourcing high-risk pregnancy case management to a leader in specialized disease management services that focus on select, high-cost conditions.
- Linking provider payment to the completion and submission of the perinatal needs assessment form.
- Implementing preconception counseling.
- Conducting member education programs on healthy pregnancy practices entitled "Baby Shower" and "Baby and Me" prenatal program.
- Conducting provider office outreach and continuing education programs on the use and adoption of the perinatal needs assessment form.
- Updating case management practices to include face-to-face interventions.
- Increasing the frequency and interval for case management outreach.
- Updating case management systems to capture perinatal outcomes data.
- Targeted outreach to members with high blood pressure with an emphasis on blood pressure control and promoting PCP visits.
- Implemented the Healthy Rewards incentive-based program for members to seek preventive and routine care services.

- Initiated post emergency room follow-up to members.
- Implemented diabetes disease management programs.
- Targeted telephone outreach to members with a diagnosis of high blood pressure promoting PCP visits and BP control.
- Implemented the *Pharmaceutical Adherence Program* through the pharmacy benefit manager. The program reminds members and providers when medication refills are due.

### **Opportunities for Improvement - Recommendations for MCOs**

Although each health plan is committed to delivering high quality care and services to its managed care members, opportunities exist for continued performance improvement. Based upon the evaluation of 2011 activities, Delmarva has developed the following recommendations for all health plans:

- MCOs must ensure that written policies and procedures encompass all required federal and contractual language. Further, the MCOs must monitor processes that can impact quality, access, or timeliness and initiate corrective actions when the MCO fails to meet requirements.
- MCOs must ensure that PIP activities include a robust analysis of performance for each indicator and tie results to specific interventions. This should include a drill down of data to develop system-wide interventions that may help to sustain improvement.
- MCOs should evaluate HEDIS outcomes measures in relation to PIP results to identify and monitor process indicators that may impact the overall adverse outcome rates.
- MCOs should set goals and develop interventions to achieve, at a minimum, the Medicaid average for HEDIS comprehensive diabetes care and controlling high blood pressure measures.
- MCOs should conduct a root cause analysis tied to CAHPS results to identify reasons for member dissatisfaction, particularly in the areas of customer service and care coordination.

### **Opportunities for Improvement – Recommendations for DHCF**

Considering all the results for measures of quality, access and timeliness of care for the contracted health plans, Delmarva developed the following recommendations for DHCF:

- Consider designing and implementing a robust value-based purchasing plan consisting of incentives/disincentives based on MCO performance across a designated set of performance measures.
- Choose a set of measures and set specific goals against which MCO performance will be assessed annually. These should include goals for adult access to preventive services, child access to preventive services, and quality outcomes related to chronic illnesses.
- Use performance against the designated measures as the basis for a consumer report card.
- Re-evaluate the current collaborative PIP structure.
- Consider gauging MCO performance separately for the collaborative PIPs. Aggregation of results may be skewed by including rates from one MCO that serves only a special needs population.

**DISTRICT OF COLUMBIA  
DEPARTMENT OF HEALTH CARE FINANCE  
IMPROVING BIRTH OUTCOMES  
PERINATAL MEASURE SPECIFICATION AND INSTRUCTIONS  
MY 2011 Perinatal Measure Specification**

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The District of Columbia (DC) Department of Health Care Finance (DHCF) measures selected perinatal outcomes as part of a multiyear initiative to improve the health of infants born to mothers in the DC Medicaid program.

This measure predominantly assesses health care outcomes, as opposed to certain aspects of the delivery (processes) of health care. Because of this, and because nearly all pregnant women and infants in DC Medicaid are enrolled in managed care as opposed to fee-for-service health care, the unit of analysis will be DHCF's managed care program as a whole, as opposed to individual managed care plans. Although individual managed care organizations (MCOs) that deliver service to DC Medicaid members have and will continue to implement quality improvement (QI) initiatives in perinatal health and report the outcomes of these initiatives to DHCF, individual managed care plan performance on this outcome measure is not publicly reported. Thus, no risk adjustment is required, as is the case when health outcomes are compared across individual providers. Specifications for the perinatal measure are outlined below.

### Measure Specifications

**TITLE: Adverse Perinatal Outcomes:** The rate of adverse perinatal events (as defined below) that occurred among pregnancies ending in each calendar year, and infants ages 0-365 days in the same calendar year. Adverse events are defined as:

- neonates with birth weight less than 2,500 grams;
- neonates of 32 weeks or less gestational age;
- pregnant women NOT tested for HIV prior to giving birth;
- pregnancies ending in miscarriage or fetal loss (early or late);
- pregnancies for which no outcome is known; and
- death of infant ages 0-365 days.

### DESCRIPTION

This measure tracks the outcomes of all pregnancies (i.e., those that end in a live birth as well as those that end in a miscarriage or fetal loss) and infant deaths among DC Medicaid managed care enrollees, and determines the rate at which:

- 1) pregnancies ended with: fetal or infant death; a neonate with low birth weight (less than 2,500 g) or who are severely preterm (less than 32 weeks gestation); or with NO testing for the HIV status of the mother prior to delivery; and

2) infant death occurred in the first year of life.

In addition, when a managed care plan does not have data on the outcome of the pregnancy, this is included as an adverse outcome.

Because this measure calculates rates of adverse events, we seek to achieve reductions in this rate from year to year.

## RATIONALE

Approximately 7,900 babies are born in the District of Columbia each year; the Medicaid program pays for nearly two-thirds of these. Of all births in DC, 11.2 percent are born at low birth weight (less than 2,500 g) and 3.3 percent are born very preterm (less than 32 completed weeks of gestation)<sup>15</sup> placing them at increased risk for neuro-developmental handicaps, respiratory illness, the need for long term hospitalizations and long term learning difficulties.<sup>16</sup> Twelve babies out of every 1,000 live births die before their first birthday.<sup>17</sup> Among HIV infected mothers the rate of perinatal transmission is 25 percent without treatment and 2 percent or less with treatment.<sup>18</sup> In D.C. in 2006, only 20 percent of HIV infected mothers whose children were perinatally infected had been tested before or during the birth of the child.<sup>19</sup>

Among District residents wide disparities exist across the city in infant mortality rates. For instance, in 2005 Ward 3 reported the lowest infant mortality rate (5.3 out of 1,000 live births) and Ward 8 reported the highest (21.7 out of 1,000).<sup>20</sup> Nationally, the rate of infant mortality among African Americans is more than twice that of Caucasians (13.6 vs. 5.7 per 1,000 live births in 2004). Much of the discrepancy between infant mortality rates among African Americans and Caucasians can be explained by discrepancies in prematurity and low birth weight rates.<sup>21</sup> African American women are twice as likely to give birth to a low birth weight infant as compared to Caucasian women, and one and a half times more likely to deliver preterm.<sup>22</sup> Other factors contributing to the discrepancy in infant mortality between African Americans and Caucasians include sudden infant death syndrome, infections, congenital abnormalities, and injuries.<sup>23</sup>

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<sup>15</sup> March of Dimes, District of Columbia Maternal and Infant Health Overview available at [marchofdimes.com/peristats](http://marchofdimes.com/peristats). Data is from National Center for Health Statistics, 2004 and 2005.

<sup>16</sup> March of Dimes, Perinatal statistics; available at <http://www.marchofdimes.com/peristats/tlanding.aspx?reg=99&lev=0&top=1&slev=1&dv=qf>.

<sup>17</sup> March of Dimes, District of Columbia Maternal and Infant Health Overview available at [marchofdimes.com/peristats](http://marchofdimes.com/peristats). Data is from National Center for Health Statistics, 2004 and 2005

<sup>18</sup> National Institute of Health Public Health Service Task Force. "Recommendations for US of Antiretroviral Drugs in Pregnant HIV-1-Infected Women for Maternal Health and Interventions to Reduce Perinatal HIV-1 Transmission in the United States" July 8, 2008 Available at <http://aidsinfo.nih.gov/ContentFiles/PerinatalGL.pdf>

<sup>19</sup> DC Department of Health HIV/AIDS Fact Sheet. Snapshot HIV/AIDS among children less than 13 years of age in the District of Columbia. November, 2007. Available at

[http://www.dchealth.dc.gov/doh/frames.asp?doc=/doh/lib/doh/services/administration\\_offices/hiv\\_aids/pdf/factsheets/children\\_under\\_13.pdf](http://www.dchealth.dc.gov/doh/frames.asp?doc=/doh/lib/doh/services/administration_offices/hiv_aids/pdf/factsheets/children_under_13.pdf)

<sup>20</sup> State Center for Health Statistics (December 2007) Briefing Paper on the 2005 Infant Mortality Rate for the District of Columbia. Washington, DC: Department of Health.

<sup>21</sup> El-Mohandes, A A E, Katz K S, El-Khorazaty N, et al. The effect of a parenting education program on the use of preventive pediatric health care services among low-income, minority mothers: a randomized, controlled study. *Pediatrics*, 2003;111:1324-1332.

<sup>22</sup> Kaiser Family Foundation State Health Facts

<sup>23</sup> Scott CL, Iyasu S, Rowley D, Atrash HK. Postneonatal Mortality Surveillance-United States, 1980-1984. *MMWR Morb Mort Wkly Rep*. 1998;47(SS-2)

Although causes of poor pregnancy outcomes are complex and multifactorial, evidence exists that many are preventable with interventions aimed at reducing risks during pregnancy and improving quality of prenatal care. There are a number of evidence-based interventions to reduce poor pregnancy outcomes.

Early, comprehensive prenatal care has been shown to promote healthier pregnancies by early detection of risk factors, by monitoring symptoms, and by providing health behavior advice and education.<sup>24, 25</sup> In 2005 the national infant mortality rate for infants whose mothers began prenatal care either after the first trimester or not at all was 40 percent higher than the rate for infants whose mothers began care in the first trimester (8.69 deaths per 1,000 live births compared to 6.2 deaths per 1,000 live births).<sup>26</sup> Prenatal care is especially important in the presence of birth complications.<sup>27</sup> Yet in DC only 69 percent of women receive prenatal care in the first trimester. Among African Americans, the number of women receiving prenatal care in the first trimester is only 62 percent compared to 91 percent among Caucasian women.<sup>28</sup>

Good evidence also suggests that nurse home visiting programs<sup>29</sup> and other programs which include regular home visits with education and parental support<sup>30</sup> can result in earlier and more frequent well-baby visits, and longer intervals between births. These interventions are especially effective for women with few economic and social resources.<sup>31</sup> Improving rates of prenatal care visits have been shown to have a more marked effect on improving birth outcomes in the African American patient population than the Caucasian patient population.<sup>32</sup>

By employing multidisciplinary prenatal interventions (e.g., care coordination, nutrition counseling, or psychosocial counseling) targeted toward specific risks (smoking, inadequate weight gain, psychosocial

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<sup>24</sup> Centers for Disease Control and Prevention. Safe Motherhood: Promoting Health for Women Before, During and After Pregnancy, 2006. 2006. 7-20-0006, cited in: National Committee for Quality Assurance. The State of Health Care Quality 2007: Prenatal and Postpartum Care. Available at: [http://www.ncqa.org/Portals/0/Publications/Resource%20Library/SOHC/SOHC\\_07.pdf](http://www.ncqa.org/Portals/0/Publications/Resource%20Library/SOHC/SOHC_07.pdf)

<sup>25</sup> Evidence-based prenatal care: Part 1. General prenatal care and counseling issues. *Am Fam Physician* 2005;71:1307-1316.

Cramer ME, Chen LW, Roberts S, Clute D. Evaluating the social and economic impact of community-based prenatal care. *Public Health Nurse* 2007;24:329-336

Vintzileos AM, Ananth CV, Smulian JC, et al. The impact of prenatal care on neonatal deaths in the presence and absence of antenatal high-risk conditions. *Am J Obstet Gynecol* 2002;186:1011-1016.

<sup>26</sup> Mathews TJ, McDorman MF. Infant Mortality Statistics from the 2005 Period Linked Birth/Infant Death Data Set. *National Vital Statistics Reports*. 57, No. 2, July 30, 2008.

<sup>27</sup> Vintzileos, AM, Ananth CV, Smulian JC, Scorza WE, and Knuppel RA. The impact of prenatal care on neonatal deaths in the presence and absence of antenatal high-risk conditions. *Am J Obstet Gynecol* 2002. 186:1011-1016.

<sup>28</sup> Kaiser Family Foundation State Health Facts. Available at <http://www.statehealthfacts.org/profileind.jsp?ind=45&cat=2&rgn=10>

<sup>29</sup> Olds DL, Kitzman H, Hanks C, et al. Effects of nurse home visiting on maternal and child functioning: Age-9 follow-up of a randomized trial. *Pediatrics*; 2007;120:e832-e845.

<sup>30</sup> El-Mohandes, A. A. E., Katz, K. S., El-Khorazaty, M. N., McNeely-Johnson, D., Sharps, P. W., Jarrett, M. H., et al. (2003). The effect of a parenting education program on the use of preventive pediatric health care services among low-income, minority mothers: A randomized, controlled study. *Pediatrics*, 111(6 1), 1324-1332.

<sup>31</sup> American Academy of Pediatrics, Council on Child and Adolescent Health. The role of home-visitation programs in improving health outcomes for children and families. *Pediatrics*. 1998;101: 486-489.

<sup>32</sup> Murray, JL, Bernfield, M. (1988). The differential effect of prenatal care on the incidence of low birth weight among blacks and whites in a prepaid health care plan. *New England Journal of Medicine*, 319(21), 1385-1391.

problems), reductions in the rate of low birth-weight births have been achieved.<sup>33</sup> Other prenatal psychosocial care programs have shown reductions in reducing the number of risk factors reported postpartum,<sup>34</sup> in reducing low birth weight among HIV-infected women,<sup>35</sup> among pregnant adolescents,<sup>36</sup> and among medically high-risk women.<sup>37</sup>

Smoking is a significant risk factor for several poor pregnancy outcomes. For sudden infant death syndrome (SIDS), a condition responsible for more infant deaths in the United States than any other cause of death during infancy beyond the neonatal period,<sup>38</sup> maternal smoking during pregnancy has been identified as a major risk factor.<sup>39</sup> Mothers who smoke during pregnancy are up to three times as likely to have a baby die from SIDS as mothers who are nonsmokers.<sup>40</sup> Smoking during pregnancy nearly doubles a woman's risk of having a low-birth weight baby and increases the likelihood of preterm delivery.<sup>41</sup> According to the US Public Health Service, if all pregnant women in the U.S. stopped smoking there would be an estimated eleven percent (11 percent) drop in stillbirths and a five percent (5 percent) reduction in newborn deaths.<sup>42</sup>

Effective smoking cessation interventions are available,<sup>43</sup> ranging from brief counseling interventions to long-term support programs, and have been shown to reduce preterm birth and low birth weights.<sup>44</sup> Pregnant women who receive brief smoking cessation counseling are more likely to quit smoking.<sup>45</sup> A combination of social support and rewards to reduce smoking during pregnancy has proven to be especially effective for high risk pregnant smokers.<sup>46</sup>

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<sup>33</sup> Ricketts, SA, Murray EK, Schwalberg R. Reducing Low Birthweight by Resolving Risks: Results from Colorado's Prenatal Plus Program. *Research and Practice*. 2005;95:1952-1957

<sup>34</sup> El-Mohandes, AE, Kiely M, Joseph JG, et al. An intervention to improve postpartum outcomes in African-American mothers: A randomized controlled trial. *Obst Gyn*; 2008;112:611-620.

<sup>35</sup> Turner BJ, Newschaffer CJ, Cocroft J, et al. Improved birth outcomes among HIV-infected women with enhanced Medicaid prenatal care. *American Journal of Public Health*. 2000;90:85-91.

<sup>36</sup> Zimmer-Gembeck MJ, Helfand M. Low birthweight in a public prenatal care program: behavioral and psychosocial risk factors and psychosocial intervention. *Soc Sci Med*. 1996;43:187-197.

<sup>37</sup> Baldwin LM, Larson EH, Connell FA, et al. The effect of expanding Medicaid prenatal services on birth outcomes. *Am J Public Health*. 1998;88:1623-1629.

<sup>38</sup> Arias E, MacDorman MF, Strobino DM, Guyer B. Annual summary of vital statistics – 2002. *Pediatrics*. 2003; 112:1215-1230.

<sup>39</sup> American Academy of Pediatrics, Policy Statement. The Changing Concept of Sudden Infant Death Syndrome: Diagnostic Coding Shifts, Controversies Regarding the Sleeping Environment, and New Variables to Consider in Reducing Risk. *Pediatrics* 2005; 116:1245-1255

<sup>40</sup> Centers for Disease Control and Prevention (CDC). What Do We Know About Tobacco Use and Pregnancy. June 11, 2007. Available at <http://www.cdc.gov/reproductivehealth/tobaccoUsePregnancy/index.htm>

<sup>41</sup> Martin JA, Hamilton BE, Sutton PD, et al. Births: Final Data for 2004. *National Vital Statistics Reports* September 29, 2006. Available at [http://wonder.cdc.gov/wonder/sci\\_data/natal/linked/type\\_txt/lbd04/NatFinalData.pdf](http://wonder.cdc.gov/wonder/sci_data/natal/linked/type_txt/lbd04/NatFinalData.pdf)

<sup>42</sup> Centers for Disease Control and Prevention (CDC). What Do We Know About Tobacco Use and Pregnancy? June 11, 2007. Available at <http://www.cdc.gov/reproductivehealth/tobaccoUsePregnancy/index.htm>

<sup>43</sup> From: March of Dimes. Smoking During Pregnancy. Available at [http://www.marchofdimes.com/professionals/14332\\_1171.asp](http://www.marchofdimes.com/professionals/14332_1171.asp)

<sup>44</sup> The American College of Obstetricians and Gynecologists. Effective Smoking Cessation Interventions. Available at [http://www.acog.org/departments/dept\\_notice.cfm?recno=10&bulletin=1210](http://www.acog.org/departments/dept_notice.cfm?recno=10&bulletin=1210)

AHRQ Technical Review and Summaries. Treating Tobacco Use and Dependence 2008 Update available at <http://www.ncbi.nlm.nih.gov/books/bv.fcgi?rid=hstat2.chapter.28163>

<sup>44</sup> Barker DC, Robinson la, Rosenthal AC. A survey of managed care strategies for pregnant smokers. *Tobacco Control*, 2000;9 (suppl III):iii46-iii50.

<sup>45</sup> Rayburn WF. Maternal and Fetal Effects from Substance Use. *Clin in Perinatol* 2007. 34:559-571.

<sup>46</sup> Donatelle, R.J., Prows, S.L., Champeau, D., & Hudson, D. (2000). Randomized controlled trial using social support and financial incentives for high risk pregnant smokers: Significant Other Supporter (SOS) program. *Tobacco Control*, 9 (Supp III), iii67-iii69.

Alcohol and illicit drug use during pregnancy are significant and preventable risk factors for preterm birth/low birth weight, and infant mortality.<sup>47</sup> Drinking alcohol during pregnancy increases the risk for miscarriage and premature birth and may be linked to stillbirth.<sup>48</sup> Validated screening tools for identifying women from all racial and ethnic groups who might be consuming alcohol at risky levels are available.<sup>49</sup> Randomized controlled trials have demonstrated that interventions to reduce alcohol use in pregnant women are effective.<sup>50</sup> A study of nearly 7000 pregnant women who were screened for alcohol and other drug use during routine prenatal care visits and received even a single brief intervention demonstrated a reduced rate of low birth weight and preterm infants<sup>51</sup>.

In one study, pregnant women enrolled in the Supplemental Nutrition Program for Women, Infants, and Children (WIC) program who received education and cognitive-behavioral interventions were five times more likely to be abstinent by the third trimester and had fetal mortality rates one-third those of the control group (0.9 percent compared to 2.9 percent).<sup>52</sup> Contingency management has been successful at improving retention of pregnant women in illicit drug treatment programs and transiently reducing illicit drug use<sup>53</sup> Even minimal drug interventions (such as methadone maintenance) and counseling, combined with prenatal care, have resulted in improved pregnancy and infant outcomes.<sup>54</sup>

Effective means of reducing perinatal HIV transmission to less than two percent are available.<sup>55</sup> For this reason, the CDC has recommended prenatal HIV testing for all pregnant women.<sup>56</sup> Community outreach programs that include on-site HIV and pregnancy testing have been shown to be effective in increasing prenatal HIV testing.<sup>57</sup>

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<sup>47</sup> Centers for Disease Control and Prevention. Preventing Smoking and Exposure to Secondhand Smoke Before, During, and After Pregnancy. Available at <http://www.cdc.gov/nccdphp/publications/factsheets/Prevention/smoking.htm>;

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<sup>48</sup> Strandberg-Larsen K, Nielsen JR, Gronboek M, et al. Binge drinking in Pregnancy and Risk of Fetal Death. *Obstet Gynecol* 2008;111:602-609.

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<sup>49</sup> Chang G. Alcohol-screening instruments for pregnant women. *Alcohol Res Health*.2001;25:204-209.

<sup>50</sup> Manwell LB, Fleming MF, Mundt MP, et al. Treatment of problem alcohol use in women of childbearing age: results of a brief intervention trial. *Alcohol Clin Exp Res*. 2000;24:1517-1524.

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O'Connor MJ, Whaley SE. Brief intervention for alcohol use by pregnant women. *Research and Practice* 2007;97:252-258.

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<sup>52</sup> O'Connor, J.M. & Whaley, S.E. (2007). Brief intervention for alcohol use by pregnant women. *American Journal of Public Health*, 97(2), 252-258.

<sup>53</sup> Terplan, M. & Lui, S. (2008). Psychosocial interventions for pregnant women in outpatient illicit drug treatment programs compared to other interventions (Review), *The Cochrane Library* (4).

<sup>54</sup> Rayburn WF. Maternal and Fetal Effects from Substance Use. *Clin in Perinatol* 2007. 34:559-571.

<sup>55</sup> Cooper ER, Charurat M, Mofenson LM, et al. Combination antiretroviral strategies for the treatment of pregnant HIV-1 infected women and prevention of perinatal HIV-1 transmission. *J Acquir Immune Defic Syndr* 2002; 29:484-494.

<sup>56</sup> CDC. "Advancing HIV Prevention: New Strategies for a Changing Epidemic – United States, 2003" *MMWR*. 2003; 52(15), 329-332.

<sup>57</sup> CDC. "HIV Testing Among Pregnant Women – United States and Canada, 1998-2001" *MMWR*. 2002; 51(45), 1013-1016.

## Denominator Description

**Note:** The denominator has two parts, which must be calculated separately and then added back together.

*Denominator Part 1:* Include in the denominator of this rate all pregnancies that ended in the measurement year.

**NOTE 1:** All pregnancies (those that ended in a live birth as well as those that end in a miscarriage or fetal loss) are to be included in the denominator with the exception of ectopic pregnancies and pregnancies terminated through legally and illegally induced abortions. Although Collaborative members are aware that some miscarriages early in pregnancy may not be amenable to intervention, for ease of measurement these pregnancies are included in the denominator.

**NOTE 2:** There is no continuous enrollment requirement for this measure. Pregnancies that ended in the measurement year are to be included in the denominator regardless of how long the woman was enrolled in the managed care plan prior to the end of the pregnancy. However, because limited enrollment in a managed care program or an individual health plan offers limited opportunities for intervention, data on the length of continuous enrollment of women whose pregnancies ended in the measurement year is also collected along with the rate of Adverse Perinatal Outcomes.

**NOTE 3:** Use the procedure and diagnosis codes as written. If you think a code is missing or should be considered for inclusion in the measure, please submit the code to [poynorl@dfmc.org](mailto:poynorl@dfmc.org).

**NOTE 4:** Some analysts recommend running separate queries for each diagnosis, procedure or CPT code and then eliminating any duplicate counts of pregnancies.

### Calculating the Denominator – Part 1

*Step 1:* Identify all pregnancies *that ended* in the calendar year, excluding legally and illegally induced abortions and ectopic pregnancies. (Note: A pregnancy ending in multiple births is counted as one pregnancy. Two separate pregnancies ending in the measurement year are each counted in the denominator). Pregnancies *that ended* are identified by a UB04 or CMS 1500 claim that has any of the following codes in any claim line and in any sequence; e.g., 1<sup>st</sup> claim line, 2<sup>nd</sup> claim line etc.

## Diagnostic or Procedures Codes to Identify Pregnancies that Ended (Denominator)

<b>Description</b>	<b>ICD-9 –CM Diagnosis</b>	<b>ICD-9 Procedures</b>	<b>CPT Procedure Codes</b>
<b>Delivery</b>	640.x1, 641.x1, 642.x1, 642.x2, 643.x1, 644.21, 645.x1, 646.x1, 646.12, 646.22, 646.42, 646.52, 646.62, 646.82, 647.x1, 647.x2, 648.x1, 648.x2, 649.x1, 649.02, 649.12, 649.22, 649.32, 649.42, 649.62 650, 651.x1, 652.x1, 653.x1, 654.x1, 654.02, 654.12, 654.32, 654.42, 654.52, 654.62, 654.72, 654.82, 654.92, 655.x1, 656.x1, 657.01, 658.x1, 659.x1, 660.x1, 661.x1, 662.x1, 663.x1, 664.x1, 665.01, 665.11, 665.22, 665.31, 665.41, 665.51, 665.61, 665.71, 665.72, 665.81, 665.82, 665.91, 665.92, 666.x2, 667.x2, 668.x1, 668.x2, 669.01, 669.02, 669.11, 669.12, 669.21, 669.22, 669.32, 669.41, 669.42, 669.51, 669.61, 669.71, 669.81, 669.82, 669.91, 669.92, 670.x2, 670.12, 670.22, 670.32, 670.82, 671.01, 671.02, 671.11, 671.12, 671.21, 671.22, 671.31, 671.42, 671.51, 671.52, 671.81, 671.82, 671.91, 671.92, 672.02, 673.x1, 673.x2, 674.01, 674.51, 674.x2, 675.x1, 675.x2, 676.x1, 676.x2, V22.x, V23.4x, V23.1, V23.2, V23.3, V23.5, V23.7, V23.8x V24.x, V27.0, V27.1, V27.2, V27.3, V27.4, V27.5, V27.6, V27.7  760.x, 760.xx, 761.x, 762.x, 763.x, 763.8x, 764.xx, 765.xx, 767.x, 767.1x, 768.x, 768.7x, 769.x-  V30.x- V39.x*  V30.0x-V39.0x	72.0-73.99, 74.0, 74.1, 74.2, 74.4, 74.99	59400, 59409, 59410, 59510, 59514, 59515, 59610, 59612, 59614, 59618, 59620, 59622
<b>Complications related to pregnancy</b>	632 (missed abortion- early fetal death prior to 22 weeks)  634.xx (spontaneous abortion), 637.xx (unspecified abortion), 677, V23.xx, V28.xx, V27.7		59812, 59820, 59821, 59830
<b>Abortion, spontaneous</b>	634.xx		
<b>Newborn care*</b>	V30.x-V39.x*		99466*, 99467*, 99460*,

<b>Description</b>	<b>ICD-9 –CM Diagnosis</b>	<b>ICD-9 Procedures</b>	<b>CPT Procedure Codes</b>
			99461*, 99462* 99464*, 99465*, 99468*, 99469,*99463 (newborn care codes)

\*These services are coded to the newborn and should be used by the MCO only to identify a pregnancy of an enrolled woman not otherwise identified by other denominator codes.

Step 2: Eliminate any duplicate pregnancies:

- If the data identifies the same pregnancy using more than procedure or diagnosis code, **count the pregnancy only once.**
- If the data shows a woman with > 1 delivery within an 8-week period, **count as one pregnancy.**

**Denominator exclusions:** Exclude from the denominator all pregnancies identified by the diagnosis and procedure codes specified in Table 2.

**Table 2: Denominator Exclusions**

<b>Description</b>	<b>ICD-9 –CM Diagnosis</b>	<b>ICD-9 Procedures</b>	<b>CPT Codes</b>
Ectopic pregnancy	633.x  633.xx  761.4	74.3	59120,59121,59130,59135,59136,59140,59150
Abortion, legally induced, illegally induced	635.xx, 636.xx	69.51  69.01  69.93  74.91  75.0  96.49	59840, 59841, 59850, 59851, 59852, 59855, 59856, 59857
Hydatiform Mole	630		59100, 59870
Abnormal products of conception	631		

<b>Description</b>	<b>ICD-9 –CM Diagnosis</b>	<b>ICD-9 Procedures</b>	<b>CPT Codes</b>
Complications following abortion or ectopic pregnancy	639.x		

### Calculating the Denominator - Part 2

The second part of the denominator is a count of all children ages 0-365 days for any part of the measurement year, and who were enrolled in the health plan during the measurement year, regardless of length of enrollment. This second denominator is calculated by counting all children whose date of birth occurred between January 1, of the year prior to measurement year and December 31 of the measurement year (a two year period).

### Numerator Description

Two corresponding numerators also are calculated. The first is the total number of the following adverse events associated with pregnancies included in the first denominator:

- 1) miscarriage or fetal loss (at any time during pregnancy)
- 2) neonates weighing <2,500 grams
- 3) neonates of 32 weeks or less gestational age
- 4) pregnancies for which the outcome is unknown
- 5) pregnancy during which NO maternal testing for HIV was performed.

**Note:** *A single pregnancy can be counted more than once in the numerator. For example, a woman who was never tested for HIV during her pregnancy and **prior to delivery**, and gives birth to twins at 30 weeks gestational age, each twin weighing less than 2,500 grams and one twin dying in the neonatal period is counted as six numerator events: No HIV test during pregnancy = 1, plus two preterm infants, plus two low-birth-weight infants, plus one infant death between the age of 0 and 365 days = six (6) adverse events.*

### Calculating the Numerator – Part 1

**The first numerator includes two types of adverse events (i.e., adverse outcomes and adverse process of care). A separate step is used to identify each of these two types of numerator events.**

*Step 1: Identify and Include Adverse Pregnancy Outcomes in the Numerator.* From the first denominator population, identify all pregnancies whose claim contained any of the following in any claim line and in any sequence; e.g., 1<sup>st</sup> claim line, 2<sup>nd</sup> claim line etc. The total of all such Indicator events are included in the numerator.

Codes to Identify Adverse Pregnancy Outcome Numerator Events

<b>Description</b>	<b>ICD-9-CM Diagnosis</b>	<b>CPT</b>	<b>Other Data Source</b>	<b>Notes</b>
<p><i>Adverse Event Indicator 1</i></p> <p>Pregnancies resulting in miscarriage or fetal loss at any time during the pregnancy</p>	<p>632 (missed abortion- early fetal death prior to 22 weeks)</p> <p>656.40 (Intrauterine death)</p> <p>656.41 (Intrauterine death delivered)</p> <p>656.43 (Intrauterine death ante partum complications)</p> <p>V32.0x, V32.1, V32.2, V35.0x, V35.2, V35.2. V36.0x, V36.1, V36.2 (multiple birth with at least one live born and one stillborn)</p> <p>634.xx (spontaneous abortion)</p> <p>637.xx (unspecified abortion)</p>	<p>59812, 59820, 59821, 59830</p>	<p>Stillborn deliveries are also included in the report of each birth that plans send to DHCF, IMA and the Enrollment Broker within 10 business days of delivery in order to receive "Kick Payments." Check these "Kick Payment" reports and include in the numerator any stillborn births reported that are not otherwise captured in the ICD diagnosis or procedure codes to the left.</p>	<p>This indicator excludes legally or illegally (635.xx, 636.xx) induced abortions, ectopic pregnancies (633xx, 761.4), abnormal products of conception (631) and hydatiform mole (630).</p>
<p><i>Adverse Event Indicator 2</i></p> <p>Pregnancies resulting in neonates weighing &lt; 2,500 grams</p>	<p>656.5x – Poor Fetal Growth</p> <p>Slow fetal growth and malnutrition requires 5<sup>th</sup> digit 1 – 8 that specifies weight</p> <p>764.0x (1 - 8)</p> <p>764.1x (1 – 8)</p> <p>764.2x (1 – 8)</p> <p>764.9x (1 – 8)</p> <p>Extreme Prematurity</p> <p>765.0x (1-8)</p> <p>765.0</p> <p>765.01</p> <p>765.02</p> <p>765.03</p> <p>765.04</p>		<p>MCOs may elect to supplement their data using alternative data sources such as internal care management systems to capture birth weight data.</p>	<p>For any pregnancy, for which the birth weight is unknown from hospital claims, obtain the birth weight from your health plan's report of birth weight as contained in the <i>Pregnancies, Deliveries, and High Risk Newborn Report</i> you submit quarterly to DHCF.</p>

Description	ICD-9-CM Diagnosis	CPT	Other Data Source	Notes
	765.05 765.06 765.07 765.08  Other Preterm Infants 765.1x (1-8) (765.11 (preterm infant less than 500 grams) 765.12 (preterm infant 500- 749 grams) 765.13 (preterm infant 750- 999 grams) 765.14 (1,000-1,249 grams 765.15 (1,250-1.499 grams) 765.16 (1,500-1,749 grams) 765.17 (1,750-1,999 grams) 765.18 (2,000-2,499 grams)			
Adverse Event Indicator 3  Pregnancies resulting in neonates of 32 weeks or less gestational age <sup>58</sup>	765.26 (31-32 weeks of gestation) 765.25 (29-30 weeks of gestation) 765.24 (27-28 weeks of gestation) 765.23 (25-26 weeks of gestations) 765.22 (24 weeks of gestation) 765.21 (less than 24 completed weeks of gestation)			
Adverse Event Indicator 4  Pregnancies without				

<sup>58</sup> The primary means of determining gestational age should be the interval between the first day of the mother’s last normal menstrual period (LMP) and the date of birth. When the LMP dating appears to be inconsistent with the birth weight, as when normal weight births of apparently short gestations or very-low-birth weight births reported to be full term, the U.S. Standard Certificate of Live Birth allows the use of “clinical estimate of gestation.” The clinical estimate of gestation should also be used when LMPs are not available.

<b>Description</b>	<b>ICD-9-CM Diagnosis</b>	<b>CPT</b>	<b>Other Data Source</b>	<b>Notes</b>
evidence of a birth outcome.				

*Step 2: Identify and Include in the Numerator Pregnancies in Which the Mother's HIV Status was **not** Determined Prior to the Admission Date for Delivery.*

From the denominator, identify all pregnancies whose ambulatory claim data ***prior to date of delivery*** included: 1) a procedure code/LOINC code for HIV testing<sup>59</sup>; 2) a diagnosis code for HIV or AIDs; or 3) a drug claim for an antiretroviral medication. **NOTE:** A claim for HIV testing during the inpatient stay for the delivery is ***not*** included.

#### Codes to Identify Testing or Identification of HIV Status Prior to Delivery

<b>Description</b>	<b>ICD-9-CM Diagnosis</b>	<b>CPT</b>	<b>NDC Drug Codes</b>	<b>Other Data Source*DC DOH HIV Registry or other administrative data that can be validated</b>	<b>LOINC Codes</b>
<b>Adverse Indicator 5</b>  Pregnancies with evidence of Maternal testing for HIV, diagnosis of HIV prior to delivery, or use of antiretroviral medications	ICD-9 codes for those with diagnoses of HIV or AIDS:  042, 647.6x + V08, and 079.53	86689, 86701-86703, 87534-87539, 87390-87391	See attached list of NDC codes	Health plans can also supplement the identification of mothers whose HIV status was already known prior to delivery by reviewing clinical and / or administrative records of those women whose claims do not show testing for HIV or a diagnosis of HIV or AIDS.	See attached list of LOINC codes

Subtract the pregnancies whose ambulatory claim data included: 1) a diagnosis of HIV or AIDS prior to delivery; or 2) a code for HIV testing prior to delivery (refer to the LOINC code table for laboratory codes); or 3) an NDC code for antiretroviral medication prior to delivery from the denominator total to produce the *number of pregnancies during which NO determination of HIV status was performed prior to the delivery*. Add these women (events) to the first numerator from Step 1.

<sup>59</sup> Although the CDC's HIV screening guideline recommends testing twice during pregnancy (during the first and third trimesters), the measurement standard for the collaborative is only 1 HIV test per pregnancy.

**Calculating the Numerator – Part 2**

From the second denominator, identify the number of infant deaths occurring among these infants: These infant deaths are identified as below:

<b>Description of Second Numerator:</b>	<b>ICD-9-CM Diagnosis</b>	<b>Other</b>
Infant death age 0-365 days	674.92, 674.9x,674.90,) sudden infant death after delivery, cause not stated)  798.x (Cot, Crib death, sudden infant death syndrome)  779.9 (neonatal death)	Review the MCO's Sentinel Event report and Death Reports to detect any cases of infant mortality in the first year of life (aged 0-365 days) and include these deaths in the numerator.

The number of infant deaths age zero to 365 days constitutes a second numerator.

**Calculating the Adverse Perinatal Outcome Rate**

The Adverse Perinatal Outcomes Rate is calculated by dividing the total of the two numerator events by the total of the two denominators:

$$\frac{\text{Total adverse pregnancy outcomes + infant deaths in 1st year of life}}{\text{All Pregnancies + children age 0-365 days}} = \frac{\text{Adverse outcomes}}{\text{Per 1,000 pregnancies \& infants}}$$

Brand Name	Generic Name	NDC Codes							
<b>Multi class Combo Products</b>									
<a href="#">Atripla</a>	tenofovir disoproxil fumarate	015584 0101 600	015584 0101 200	15584 0101 300					
<b>Nucleoside Reverse Transcriptase Inhibitors (NRTIs)</b>									
<a href="#">Combivir</a>	Lamivudine	0173 0595 150	16590 061 150	21695 846 150	49702 202 150				
	Zidovudine	16590 061 300	49702 202 300	68084 461 100	68084 462 300	021695 *846 150	000173 0595 300	067544 *850 300	021695 *846 300
	065862 *048 50	065862 *107 100	065862 *024 300	021695 *369 300	000054 0052 300	000378 6106 300			
<a href="#">Emtriva</a>	Emtricitabine	53828 0801 200	061958 0601 200	061958 0602 10	046014 0601 200				
<a href="#">Epivir</a>	lamivudine	053808 0246 300	053808 0245 150	054868 5416 300	000173 0662 100	000173 0470 150	021695 *367 150	000173 0714 300	000173 0663 5
		000173 0471 10	054868 3693 150	0179 0087 150	49702 203 150	49702 204 300	49702 205 10	63629 4143 150	
<a href="#">Epzicom</a>	Abacavir Sulfate	054868 5600 600	49702 206 600	53808 0767 600	000173 0742 600				
	Lamivudine	000173 0742 300	49702 206 300	054868 5600 300	53808 0767 300				
<a href="#">Retrovir</a>	zidovudine	012634 *523 100	053873 8006 50	055154 0709 100	064579 *076 100	054569 4538 300	000173 0501 300	062584 *464 100	060491 *561 100
		000173 7054 300	000173 0108 100	058864 *462 100	054868 1974 100	057866 6059 100	055045 3314 100	053873 8006 5	000173 0113 50
		000173 0113 5	068071 *259 100	024236 *675 300	49702 213 10	49702 214 300	0054 0052 300	0378 6106 300	21695 369 300

		0713 0107 10	49702 211 100	49702 212 50	65862 024 300	65862 048 50	65862 107 100	68084 461 100	68084 462 300
<a href="#">Trizivir</a>	Abacavir Sulfate	000173 0691 300	49702 217 300						
	Lamivudine	000173 0691 150	49702 217 150						
	Zidovudine	00173 0691 300	49702 217 300	0054 0052 300	0378 6106 300	21695 369 300	65862 024 300	65862 107 100	68084 461 100
		68084 462 300							
<a href="#">Truvada</a>	Emtricitabine	061958 0701 200	053808 0805 200						
	Tenofovir Disoproxil Fumarate	053808 0805 300	061958 0701 300						
<a href="#">Videx EC</a>	enteric coated didanosine	0378 8887 200	000087 6671 125	0378 8886 125	000087 6674 400	000087 6673 250	000087 6672 200	0378 8888 250	0378 8889 400
Videx	Didanosine	065862 *313 400	065862 *312 250	065862 *310 125	065862 *311 200	000555 0588 200	000555 0589 250	000555 0590 400	053808 0236 250
		068084 *431 250	068084 *432 400	0087 6632 10	0087 6633 10	53808 0353 400	62584 046 250	62584 048 400	65862 109 10
		65862 110 10							
<a href="#">Viread</a>	tenofovir disoproxil fumarate	061958 0401 300	053808 0810 300						
<a href="#">Zerit</a>	Stavudine	000003 1968 1	031722 *518 40	000003 1964 15	000003 1966 30	000003 1967 40	000003 1965 20	031722 *517 30	031722 *516 20
		031722 *515 15	000179 0028 40	053808 0595 40	065862 *072 1	065862 *111 15	059762 1193 40	000378 5042 30	024236 *962 40
		065862 *112 20	065862 *046 30	065862 *047 40	059762 1190 15	000378 5040	000378 5041	000378 5043	59762 1192

						15	20	40	30
		53808 0656 20	53808 0657 30	53808 0795 40	49348 066 40	53808 0594 40	59762 1191 20		
<a href="#">Ziagen</a>	Abacavir Sulfate	000173 0661 300	000173 0664 20	053808 0811 300	49702 221 300	49702 222 20			
<b>Nonnucleoside Reverse Transcriptase Inhibitors (NNRTIs)</b>									
<a href="#">Intelence</a>	Etravirine	054868 5864 100	059676 *570 100	53808 0787 100	59676 571 200				
<a href="#">Rescriptor</a>	Delavirdine Mesylate	49702 209 100	49702 210 200						
<a href="#">Sustiva</a>	Efavirenz	000056 0470 50	000056 0474 200	000056 0510 600					
<a href="#">Viramune</a>	nevirapine	000597 0046 200	000597 0047 50	053808 0808 200	0597 0123 400				
<a href="#">Aptivus</a>	tipranavir	000597 0003 250	000597 0002 100						
<a href="#">Crixivan</a>	indinavir sulfate	000006 0573 400	000006 0571 200	000006 0570 100	21695 366 400	53808 0661 400			
<a href="#">Invirase</a>	Saquinavir mesylate	53808 0674 500	000004 0245 200	000004 0244 500					
Kaletra	Kaletra	49349 024 200	49349 024 50						
	Lopinavir	0074 0522 100	0074 3959 80	000074 6799 200	021695 *362 200				
	Ritonavir	0074 0522 25	0074 3959 20	000074 6799 50	021695 *362 50				
<a href="#">Lexiva</a>	fosamprenavir calcium	000173 0727 50	49702 207 700	49702 208 50	000173 0721 700	053808 0281 700			
<a href="#">Norvir</a>	ritonavir	000074 6633 100	054868 3782 100						

<a href="#">Prezista</a>	darunavir ethanolate	059676 *562 600	059676 *561 400	53808 0672 400	53808 0773 600	059676 *563 75	059676 *564 150		
<a href="#">Reyataz</a>	atazanovir sulfate	000003 3623 100	000003 3622 300	000003 3624 150	000003 3631 200				
<a href="#">Viracept</a>	nelfinavir mesylate	063010 *027 625	063010 *010 250	063010 *011 50	053808 0809 625				
<b>HIV integrase strand transfer inhibitors</b>									
<a href="#">Isentress</a>	raltegravir	054868 0117 400	000006 0227 400	53808 0650 400					
<b>Entry Inhibitors</b>									
Selzentry	maraviroc	49702 223 150	49702 224 300	000069 0808 300	000069 0807 150	49702 215 150	49702 216 300		
<b>Fusion Inhibitors</b>									
Fuzeon	enfuvirtide	0004 0380							

HIV LOINC CODES		
Loinc Num	Component	Condition Name
10351-5	HIV 1 RNA	AIDS
10682-3	HIV 1 RNA	AIDS
10901-7	HIV 2 GP125 Ab	AIDS
10902-5	HIV 2 GP36 Ab	AIDS
11078-3	HIV 2 GP80 Ab	AIDS
11079-1	HIV 2 P26 Ab	AIDS
11080-9	HIV 2 P53 Ab	AIDS
11081-7	HIV 2 P56 Ab	AIDS
11082-5	HIV 2 P68 Ab	AIDS
12855-3	HIV 1 P23 Ab	AIDS
12856-1	HIV 1 P65 Ab	AIDS
12857-9	HIV 1 P28 Ab	AIDS
12858-7	HIV 1 P32 Ab	AIDS
12859-5	HIV 1 P18 Ab	AIDS
12870-2	HIV 1 GP34 Ab	AIDS
12871-0	HIV 1 P26 Ab	AIDS
12872-8	HIV 1 P15 Ab	AIDS
12875-1	HIV 1 P64 Ab	AIDS
12876-9	HIV 1 P53 Ab	AIDS
12893-4	HIV 1 GP105 Ab	AIDS
12894-2	HIV 1 P68 Ab	AIDS
12895-9	HIV 1 P58 Ab	AIDS
13499-9	HIV 1 Ab band pattern	AIDS
13920-4	HIV 2 P41 Ab	AIDS
14092-1	HIV 1 Ab	AIDS
14126-7	HIV 1 GP120+GP160 Ab	AIDS
16132-3	HIV 1 P15+P18 Ab	AIDS

16274-3	Cells.CD4/Cells.C4	AIDS
16975-5	HIV 1 Ab.IgG	AIDS
16976-3	HIV 1 Ag	AIDS
16978-9	HIV 1 P24 Ab	AIDS
18396-2	HIV 1 P24 Ag	AIDS
19110-6	HIV 1 GP41+GP43 Ab	AIDS
20447-9	HIV 1 RNA	AIDS
20605-2	Cells.CD4	AIDS
20606-0	Cells.CD4/100 cells	AIDS
21008-8	HIV 1 RNA	AIDS
21009-6	HIV 1	AIDS
21331-4	HIV 1 P24 Ab	AIDS
21332-2	HIV 1 P41 Ab	AIDS
21333-0	HIV 1 RNA	AIDS
21334-8	HIV 2 GP105 Ab	AIDS
21335-5	HIV 2 GP120 Ab	AIDS
21336-3	HIV 2 GP15 Ab	AIDS
21337-1	HIV 2 GP34 Ab	AIDS

Loinc Num	Component	Condition Name
21338-9	HIV 2 P31 Ab	AIDS
21339-7	HIV 2 P55 Ab	AIDS
21340-5	HIV 2 P58 Ab	AIDS
22356-0	HIV 1 Ab	AIDS
22357-8	HIV 1+2 Ab	AIDS
22358-6	HIV 2 Ab	AIDS
23876-6	HIV 1 RNA	AIDS
24012-7	HIV 1 Ag	AIDS
24013-5	HIV 1 RNA	AIDS

Loinc Num	Component	Condition Name
25835-0	HIV 1 RNA	AIDS
25836-8	HIV 1 RNA	AIDS
25841-8	HIV 2 DNA	AIDS
25842-6	HIV 2 DNA	AIDS
29539-4	HIV 1 RNA	AIDS
29541-0	HIV 1 RNA	AIDS
29893-5	HIV 1 Ab	AIDS
30245-5	HIV 1 DNA	AIDS
30361-0	HIV 2 Ab	AIDS
31072-2	HIV 1 P41 Ab	AIDS
31073-0	HIV 2	AIDS
31201-7	HIV 1+2 Ab	AIDS
32602-5	HIV 1+2 Ab	AIDS
32827-8	HIV 1 P17+P18 Ab	AIDS
32842-7	HIV 1 P17+P18 Ab	AIDS
33508-3	HIV 1 P65+P66 Ab	AIDS
33660-2	HIV 1 P24 Ag	AIDS
33806-1	HIV 2 Ab.IgG	AIDS
33807-9	HIV 2 Ab.IgG	AIDS
33866-5	HIV 1 Ab	AIDS
34699-9	HIV 2 DNA.proviral	AIDS
35452-2	HIV1 gp40	AIDS
35565-1	HIV1 p40	AIDS
40437-6	HIV1 p24	AIDS
40438-4	HIV1 gp41	AIDS
40439-2	HIV1 gp120	AIDS
40732-0	HIV1 IgG	AIDS
40733-8	HIV1+2 Ab.Igm	AIDS

Loinc Num	Component	Condition Name
41290-8	HIV1+2 Ab.Igm	AIDS
41513-3	HIV1 RNA	AIDS
41514-1	HIV1 RNA	AIDS
41516-6	HIV1 RNA	AIDS
41518-8	HIV1 RNA	AIDS
42339-2	HIV1 p24	AIDS
42600-7	HIV1+2 Ab	AIDS
42768-2	HIV 1 & 2 AB	AIDS
43008-2	HIV1+2 Ab.Igm	AIDS

Loinc Num	Component	Condition Name
43009-0	HIV1+2 Ab.Igm	AIDS
43010-8	HIV1+2 Ab	AIDS
43011-6	HIV1 p24	AIDS
43012-4	HIV1 gp41	AIDS
43013-2	HIV1 gp120	AIDS
43185-8	HIV 1 & 2 AB IB	AIDS
43599-0	HIV1 B Ser	AIDS
44532-0	HIV 1gp120 Ab	AIDS
44607-0	HIV1 SER EIA IMP	AIDS
44871-2	HIV DNA	AIDS
44873-8	HIV1+2 Ab	AIDS
45212-8	HIV2+ p31 Ab	AIDS
47359-5	HIV1 RNA	AIDS
48023-6	HIV1 proviral DNA	AIDS
48345-3	HIV1+0+2 Ab	AIDS
48346-1	HIV1+0+2 Ab	AIDS
48510-2	HIV1 RNA	AIDS
48511-0	HIV1 RNA	AIDS
48552-4	HIV1 RNA	AIDS
49483-1	HIV1 SER EIA IMP	AIDS
49580-4	HIV1+2 Ab	AIDS
49905-3	Rapid Test	AIDS
49965-7	HIV1 AB	AIDS
5017-9	HIV 1 RNA	AIDS
5018-7	HIV 1 RNA	AIDS
51780-5	HIV1 RNA	AIDS
51786-2	HIV2 Ab	AIDS
51866-2	HIV1 AB	AIDS

Loinc Num	Component	Condition Name
5220-9	HIV 1 Ab	AIDS
5221-7	HIV 1 Ab	AIDS
5222-5	HIV 1 Ag	AIDS
5223-3	HIV 1+2 Ab	AIDS
5224-1	HIV 2 Ab	AIDS
5225-8	HIV 2 Ab	AIDS
5472-6	CD4	AIDS
6429-5	HIV identified	AIDS
6431-1	HIV identified	AIDS
7917-8	HIV 1 Ab	AIDS
7918-6	HIV 1+2 Ab	AIDS
7919-4	HIV 2 Ab	AIDS
8127-3	Cells.CD4	AIDS
8128-1	Cells.CD4/100 cells	AIDS
9660-2	HIV 1 GP160 Ab	AIDS
9661-0	HIV 1 GP120 Ab	AIDS
9662-8	HIV 1 GP41 Ab	AIDS

Loinc Num	Component	Condition Name
9663-6	HIV 1 P17 Ab	AIDS
9664-4	HIV 1 P24 Ab	AIDS
9665-1	HIV 1 P24 Ag	AIDS
9666-9	HIV 1 P31 Ab	AIDS
9667-7	HIV 1 P51 Ab	AIDS
9668-5	HIV 1 P55 Ab	AIDS
9669-3	HIV 1 P66 Ab	AIDS
9821-0	HIV 1 P24 Ag	AIDS
9836-8	HIV DNA	AIDS
9837-6	HIV 1 DNA	AIDS
21007-0	serum from donor	AIDS
29327-4	body fluid	AIDS
32571-2	urine	AIDS
34591-8	body fluid	AIDS
34592-6	body fluid	AIDS
35564-4	serum	AIDS
38998-1	hiv+hep c	AIDS
41145-4	capillary blood	AIDS
41515-8	serum/plasma	AIDS
44531-2	serum from donor	AIDS
44533-8	serum from donor	AIDS
44872-0	serum from donor	AIDS
48551-6	serum/plasma	AIDS
53379-4	unspecified specimen	AIDS
35437-3	HIV 1 Ab	AIDS
35438-1	HIV 1 Ab	AIDS
35439-9	HIV 1 Ab	AIDS
35440-7	HIV 1gb 160 ab	AIDS
35441-5	HIV 1gb 160 ab	AIDS

Loinc Num	Component	Condition Name
35442-3	HIV 1p66 AB	AIDS
35443-1	HIV 1p65 AB	AIDS
35444-9	HIV 1p55 AB	AIDS
35445-6	HIV 1p51 AB	AIDS
35336-4	HIV 1gb41 AB	AIDS
35448-0	HIV 1 p17 AB	AIDS
41144-7	HIV 1 Ab	AIDS
41143-9	HIV 1 Ab	AIDS
35450-6	HIV 1 p18 Ab	AIDS
53604-1	HIV1p24 Ag	AIDS
53825-6	HIV + Hep C	AIDS
53923-9	HIV 1p24 Ag	AIDS
54086-4	HIV 1 + 2Ab 1gG	AIDS
57182-8	HIV 1	AIDS
56888-1	HIV 1+2 Ab + HIV 1ps2	AIDS
57975-5	HIV 1+0+2b	AIDS
57976-3	HIV 2gb 140 Ab	AIDS
57977-1	HIV 2 p16 Ab	AIDS
57978-9	HIV 2 p34 Ab	AIDS
58900-2	HIV 1+2 AB +HIV1p24	AIDS
59052-1	HIV 1 + Hep C	AIDS
59419-2	HIV 1 RNA	AIDS
62456-9	HIV 2 p15 Ab	AIDS
62469-2	HIV 1 RNA	AIDS

**DISTRICT OF COLUMBIA**  
**DEPARTMENT OF HEALTH CARE FINANCE**  
**IMPROVING ADVERSE OUTCOMES OF CHRONIC DISEASE**  
**MEASURE SPECIFICATION AND INSTRUCTIONS**  
**MY 2011 Chronic Disease Measure Specification**

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The District of Columbia (DC) *Collaborative to Improve Chronic Disease Outcomes* is measuring changes in the health outcomes of individuals with asthma, diabetes, hypertension, and congestive heart failure as part of a multiyear initiative to improve the health of people in the DC Medicaid and Alliance programs who live with chronic diseases.

This measure assesses health care outcomes, as opposed to certain aspects of the delivery (processes) of health care. The unit of analysis is the DC Medicaid and Alliance managed care program as a whole, as opposed to individual managed care plans. Although individual managed care plans that deliver service to DC Medicaid and Alliance members have and will continue to implement quality improvement (QI) initiatives to care for individuals with these diseases, and report the outcomes of these initiatives to the DC Department of Health Care Finance (DHCF), *individual* managed care plan performance on the measure described below is not publicly reported. Thus, no risk adjustment is required, as is the case when health outcomes are compared across individual providers. The chronic care measure specifications used to gauge improvement in chronic disease outcomes of Medicaid and Alliance beneficiaries are outlined below.

### **Measure Specifications**

TITLE: Adverse Outcomes of Chronic Disease

#### **DESCRIPTION**

The rate of occurrence of emergency room visits and hospitalizations for Medicaid and Alliance managed care plan enrollees with any one, or combination, of the diagnoses of asthma, diabetes, hypertension, or congestive heart failure. The death rate of this population is also measured, separately.

#### **RATIONALE**

Chronic diseases are ongoing, generally incurable illnesses or conditions. Some health services research has found that patients suffering from a number of chronic diseases can attain significant improvements in health outcomes when health care is provided in accord with an explicit, evidence-based plan that includes systematic assessments, regular patient follow-up, provider care coordination, and attention to patient self-management needs.<sup>i</sup> Proper outpatient care has the potential to reduce the rate of chronic disease exacerbations and complications and thereby reduce hospital utilization as measured by rates of emergency department (ED) encounters and hospitalizations.<sup>ii</sup>

This measure uses the rate of hospital and ED use by enrollees who have certain chronic diseases common in children and adults as a proxy indicator for chronic disease morbidity. In recognition of the fact that some ED and hospital use is appropriate and unavoidable, the rate of death among this population is also monitored so that if efforts to reduce hospital utilization rates have an unintended consequence of increasing death rates, this result is captured by the data.

#### **Asthma**

Multiple studies including randomized controlled trials have consistently shown that asthma is a readily treatable chronic condition that can be managed in the outpatient setting.<sup>iii</sup>

- Patient education with self-management support and regular medical review significantly reduces hospital admissions, emergency room visits, and unscheduled visits to the doctor.iv
- Adverse outcomes can be reduced in patients by using case management that includes good medical therapy, and patient and parent education and outreach.v
- Studies looking at reductions in risk of admission provide evidence that inhaled steroid use may decrease risk of admission by 50 percent in adults.vi
- In one study, severely ill adult asthma patients given intensive illness self-management training and vigorous medical therapy had a two-fold decrease in hospital stays compared with controls.vii
- Children who received asthma self-monitoring and management instruction, coordinated follow-up and environmental change interventions in a randomized controlled trial had significantly fewer unscheduled visits for asthma care during follow-up than controls.viii
- Another randomized controlled trial found children who received illness self-management education with or without enrollment in a nurse case-management program experienced 73 percent fewer ED visits and 84 percent fewer hospitalizations (with case-management) and 40 percent reduction in ED visits (with patient self-management alone).ix
- Using coordinated community care networks and case managers when needed, the state of North Carolina improved the quality of asthma care for its Medicaid recipients and decreased utilization of ED visits and hospitalizations for asthma (by 8 percent and 34 percent respectively) in the first year.x

### **Relationship to Quality**

The causes for hospital admissions in patients with asthma are multi-factorial and may include: poor quality of care, lack of patient compliance, and problems accessing care. All of these factors may be addressed in a comprehensive health care delivery system such as a managed care program. Admission rates for asthma as a quality indicator has been tested and included as part of well-recognized national quality indicator measure sets.<sup>xi</sup> ED visits also are included in this measure in order to include patients who receive preventable asthma care in the hospital emergency room without being admitted.<sup>xii</sup>

### **Diabetes**

Diabetes is a chronic condition that can result in life-threatening short-term complications as a result of an excess of glucose (hyperglycemia) or insulin (hypoglycemia) and in long-term complications such as blindness, kidney failure, loss of limb, and heart disease. Long-term diabetes complications are thought to arise from poor control of diabetes over a sustained period. For both short-term and long-term complications, high quality outpatient care has been shown to lead to reductions in hospitalizations.<sup>xiii</sup>

- At least two randomized controlled trials demonstrate that chronic care intervention (self-management support, individualized goal setting, regular follow-up, and provider decision support) resulted in significant lowering of cardiovascular disease risk factors (HbA1c, blood pressure and cholesterol levels),xiv and/or significant reductions in emergency room visits.xv
- In an analysis of hospital utilization rates among 18,404 adult Medicaid recipients receiving primary care at eight different clinics, having had any type of educational visit for diabetes self-care was associated with 9.18 fewer hospitalizations per 100 person years and \$11,571 less in hospital charges per person after adjusting for other variables.xvi

- In a study designed to assess the impact of improved glycemic control on diabetic complications in managed care patients, patients with better glycemic control experienced reduced hospital admissions for both acute and chronic diabetic complications and corresponding reductions in mean adjusted hospital costs.<sup>xvii</sup>
- The United Kingdom prospective diabetes study (UKPDS) provided evidence that intensive blood glucose control with sulfonylureas or insulin was superior to traditional (mainly diet) management of patients with type II diabetes; both the number and duration of hospitalizations were reduced because of lower complication rates among intensively treated patients compared to controls. Treatment included combination medication therapies in addition to diet and self management and monitoring.<sup>xviii</sup>
- A systematic review of 26 studies addressing diabetes self-management training and education found that more than half (18) were associated with decreased cost, cost saving, cost-effectiveness or positive return on investment;<sup>xix</sup>
- Intensive diabetes therapy reduces the risk of development of microalbuminuria and progression to kidney disease people with type I and type II diabetes.<sup>xx</sup>
- In a review of studies in which elements of the chronic care model were employed, 19 out of 20 interventions improved a process or outcome of care.<sup>xxi</sup>

#### *Relationship to Quality*

Hospital admission rates for short-term or long-term complications of diabetes may be the result of poor quality medical care, noncompliance of patients, lack of education, or access to care. Because proper outpatient treatment and adherence to care may reduce the incidence of long-term diabetic complications, admission rates for diabetic emergencies and for long-term diabetic complications are included in well-established sets of prevention quality indicators.<sup>xxii</sup>

#### **Congestive Heart Failure**

Congestive heart failure is a chronic progressive disorder which can be controlled in an outpatient setting for the most part, but for which some hospitalizations are appropriate.

- Analysis of data from 10 randomized clinical trials of care management programs for heart failure carried out in the United States, Australia, the Netherlands and the United Kingdom, found that hospital readmissions could be reduced by 25 percent and total readmission days by 30 percent when care management methods included a multi-disciplinary team approach and in-person communication with patients.<sup>xxiii</sup>
- Randomized controlled trials demonstrate 30 – 56 percent reduction in hospital readmissions for congestive heart failure<sup>xxiv</sup> and 18 percent reduction in mortality when chronic care model interventions (i.e., patient education with home visit follow-up post hospitalization) are used.<sup>xxv</sup>

Self-management interventions alone can result in significant reductions in all-cause hospital readmissions and heart failure readmission with reported cost savings ranging from \$1,300 to \$7,515 per patient per year; however, this study found the effect on mortality is not significant.<sup>xxvi</sup>

### ***Relationship to Quality***

High admission rates for congestive heart failure may reflect problems with poor quality care, poor patient compliance with care, or problems accessing care. Because hospital admission rates for congestive heart failure have been shown to respond to interventions such as the use of protocols for ambulatory management of low-severity patients and facilitation of access to outpatient care, hospital admission rates for congestive heart failure has been adopted by the Institute of Medicine as a “Priority Area for National Action” and is included in their 2003 publication “Transforming Health Care Quality”<sup>xxvii</sup>.

### **Hypertension**

Patients with hypertension are at risk for stroke, heart disease and other cardiovascular problems such as kidney failure, impotence, and problems with poor blood supply to the feet and legs. The decrease in life expectancy for persons with high blood pressure is 5.1 years for men and 4.9 years for women.<sup>xxviii</sup> Hypertension is being increasingly recognized in children and adolescents with approximately 5 percent of children and adolescents having essential hypertension.<sup>xxix</sup>

- At least one large randomized clinical trial using the chronic care model has demonstrated a 17 percent reduction in all-cause mortality when chronic care elements are incorporated into care.<sup>xxx</sup>
- Antihypertensive therapy is associated with a 35 to 40 percent reduction in stroke incidence, 20 to 25 percent reduction in heart attack and a more than 50 percent reduction in heart failure.<sup>xxxi</sup>
- Based on results of a large study, reducing blood pressure by 5 mmHg is estimated to decrease deaths due to stroke by 14 percent, death due to coronary heart disease by 9 percent and death from all causes by 7 percent.<sup>xxxii</sup>
- Early detection and control of hypertension has been shown to slow the onset and progression of renal failure due to high blood pressure.<sup>xxxiii</sup>

### ***Relationship to Quality***

Appropriate outpatient care is often successful in controlling hypertension and may lower rates of ED visits and hospitalizations for hypertension. Outpatient management of hypertension has been adopted by the Institute of Medicine as a “Priority Area for National Action” and is included in its 2003 publication “Transforming Health Care Quality.”<sup>xxxiv</sup>

### **Denominator Description**

Include in the denominator of this rate all enrollees with one or more of the following diagnoses during the measurement year: diabetes, asthma, congestive heart failure, and hypertension.

**NOTE: There is no continuous enrollment requirement for inclusion in the denominator.**

A member is identified as having a diagnosis of diabetes, asthma, congestive heart failure, or hypertension by the presence of at least one specific diagnosis code on any claim or encounter form generated from at least one ambulatory care or ED visit or inpatient stay. An enrollee with any of these codes should be counted only once in the denominator.

**Note 1:** Coding to identify enrollees with the diagnoses of interest and to identify exclusions is based on the Agency for Healthcare Research and Quality’s (AHRQ’s) Prevention Quality Indicators set.<sup>xxxv</sup> This indicator set was chosen for two

reasons: 1) it is designed to be calculated using routinely collected, readily available hospital administrative data, and 2) it is widely used by other states, which indicates its feasibility and facilitates meaningful comparisons with national and regional data.

**Note 2:** Use the procedure and diagnosis codes as written. If you think a code is missing or should be considered for inclusion in the measure, please submit the code to [poynorl@dfmc.org](mailto:poynorl@dfmc.org)

## Calculating the Denominator

*Step 1: Identify all individuals with any of the conditions of interest.* Identify all enrollees in the indicated age categories **during the measurement year** with a UB04 or CMS 1500 claim or encounter form containing any of the diagnosis codes listed in Table 1 in any position, in any claim line and in any sequence; e.g., 1<sup>st</sup> claim line, 2<sup>nd</sup> claim line etc.

*Step 2: Eliminate duplicates.* Any individual identified more than once because more than one claim contained any combination of the codes above should be counted only once in the denominator population.

The denominator consists of all individuals identified in step 1 (counted only once, per Step 2).

**Table 1.**

<b>Age in the Measurement Period</b>	<b>Description</b>	<b>ICD-9-CM Diagnosis</b>	<b>Denominator Exclusions</b>	<b>Denominator Exclusion Codes (ICD-9-CM Codes)</b>
6-75 years	Diabetes mellitus Diabetic neuropathy Diabetic retinopathy Diabetic cataract	250, 250.x, 250.xx 357.2, 362.0x 366.41 *	Polycystic Ovarian Disease  Steroid induced  Gestational Diabetes  Diabetes Insipidus	256.4  251.8, 962.0  648.8  253.5
2-50 years	Asthma	493, 493.x 493.0x 493.1x 493.8x 493.9x	COPD  Emphysema  Cystic Fibrosis  Lung Anomalies	491.2x, 493.2x, 496, 506.4  492.x, 506.4, 518.1, 518.2  277.xx

			Congenital	748.6x
			Esophageal Fistula	750.3
			Situs Inversus	759.3
			Perinatal Chronic Resp Disease	770.7
			Anomalies of the Aortic Arch	747.21
18- 85 years	Hypertension - malignant, benign, or unspecified	401.x 402.xx 403.xx	ESRD	585.5, 585.6, V42.0, V45.1x, V56.x
	Hypertensive Heart Disease	404.xx	Pre-eclampsia	642.4x mild pre-eclampsia 642.5x severe pre-eclampsia
	Hypertensive Chronic Kidney Disease		Eclampsia	642.6x eclampsia 642.7x pre-eclampsia or eclampsia
	Hypertensive heart and Chronic Kidney Disease		Renovascular Hypertension Benign or Malignant	642.9xUnspecified hypertension complicating pregnancy 405.11 405.01
18-75 years	Congestive Heart Failure	428.0,	None	None
	Left Heart Failure	428.1, 428.2x		
	Systolic Heart Failure	428.3x 428.4x		
	Diastolic Heart Failure	428.9		
	Combined Systolic/Diastolic Heart Failure			

**Numerator Description**

The numerator consists of the number of ED visits with a *discharge* diagnosis of diabetes, hypertension, asthma, or congestive heart failure, plus the number of hospitalizations with a *discharge* diagnosis of diabetes, hypertension, asthma, or congestive heart failure among enrollees in the denominator. Visits or hospitalizations are identified by claim/encounter data generated from the institution providing care to Medicaid and Alliance members.

**Note:** Numerator events (i.e., ED visits and hospital admissions) may occur multiple times for a single individual. When this occurs, each ED visit and hospitalization is counted separately. For example, an individual identified in the denominator might have three ED visits and two hospitalizations during the measurement year. This person would be counted once in the denominator, but account for five numerator events.

**Calculating the Numerator**

*Step 1. Identify all enrollees in the denominator who had one or more emergency visits or inpatient stays.* From the denominator, identify all enrollees with a claim/encounter containing any of the codes in Table 2 in any claim line and in any sequence; e.g., 1<sup>st</sup> claim line, 2<sup>nd</sup> claim line etc.

**Table 2.**

Codes to Identify ED Visits or Inpatient Admissions	CPT	UB Revenue
Emergency Department encounter	99281-99285	045x, 0981
Hospital Admission Acute inpatient	99221-99223, 99231-99233, 99238, 99239, 99251-99255, 99291, 99234, 99235,99236	010x, 0110-0114, 0119, 0120-0124, 0129, 0130-0134, 0139, 0140-0144, 0149, 0150-01534, 0159, 016x, 020x-022x, 072x, 080x, 0987

*Step 2. Identify All ED or Inpatient Encounters for the Conditions of Interest.* For individuals identified in Step1 with one or more ED or inpatient claims / encounters, count all ED or inpatient encounters with an ED or inpatient discharge diagnosis with the codes in Table 3 in a any claim line and in any sequence e.g. 1<sup>st</sup> claim line, 2<sup>nd</sup> claim line etc.

**Table 3.**

Codes to Identify ED or Inpatient Claims / Encounters for Diabetes, Asthma, Hypertension, and Congestive Heart Failure	ICD-9-CM Diagnosis Codes
Diabetes mellitus	250, 250.x, 250.xx
Asthma	493, 493.x, 493.0x, 493.1x 493.8x, 493.9x
Hypertension - malignant, benign, or unspecified	401.x
Hypertensive Heart Disease	402.xx
Hypertensive Chronic Kidney Disease	403.xx
Hypertensive heart and Chronic Kidney Disease	404.xx

Congestive Heart Failure	428.0,
Left Heart Failure	428.1,
Systolic Heart Failure	428.2x,
Diastolic Heart Failure	428.3x,
Combined Systolic/Diastolic Heart Failure	428.4x,
	428.9

Step 3. Identify Exclusions

From all ED and inpatient encounters for the conditions of interest identified in Step 2, identify all of the following inpatient admissions and ED visits, for exclusion from the numerator:

- a. *Facility transfers:* Patients transferring from another institution – Exclude all claims / encounters with Admission Source Code of either “4” (Transfer from a hospital) or “6” (Transfer from another health care facility) in Field #15 of a UB04 Claim; and
- b. *Admissions to non-acute facilities:* Non acute admissions to nursing homes – Exclude all claims / encounters with the CPT or Revenue Codes in the claim or encounter form in Table 4:

Table 4.

Non-acute inpatient	CPT Codes	Revenue Codes
	99304-99310, 99315, 99316, 99318,99324-99328 99334-99337	0118, 0128, 0138, 0148, 0158, 019x, 0524, 0525, 055x, 066x

- c. *Congestive Heart Failure and Hypertension* - For individuals with a congestive heart failure and/or a hypertension diagnosis, exclude claims/encounters with the cardiac procedure codes in any field in Table 5.

Table 5.

ICD-9	Narrative
00.50	Implant pacemaker
00.51	Implant defibrillator
00.52	Implant Lead
00.53	Implant pacemaker - general
00.54	Implant/replace defibrillator generator
00.55	Insertion of drug-eluting stent(s)of other peripheral vessels
00.56	Implant lead sensor

ICD-9	Narrative
00.57	Implant subcutaneous device
00.60	Insertion of drug-eluting stent(s) of superficial femoral artery
00.66	PTCA
35.00	Closed valvotomy
35.01	Closed aortic valvotomy
35.02	Closed mitral valvotomy
35.03	Closed pulmonary valvotomy
35.04	Closed tricuspid valvotomy
35.10	Open valvotomy
35.11	Open aortic valvotomy
35.12	Open mitral valvotomy
35.13	Open pulmonary valvotomy
35.14	Open tricuspid valvotomy
35.20	Replace heart valve
35.21	Replace aortic heart valve
35.22	Replace aortic heart valve NEC
35.23	Replace mitral heart valve
35.24	Replace mitral heart valve NEC
35.25	Replace pulmonary heart valve
35.26	Replace pulmonary heart valve NEC
35.27	Replace tricuspid heart valve
35.28	Replace tricuspid heart valve NEC
35.31	Papillary Muscle Ops
35.32	Chordae tendineae ops
35.33	Annuloplasty
35.34	Infundibulectomy
35.35	Trabecul carneae cord op
35.39	Tissue adjacent to valve ops NEC

ICD-9	Narrative
35.41	Enlarge existing septal defect
35.42	Create septal defect
35.50	Prosthetic repair heart septal defect
35.51	Pros rep atrial defect OPN
35.52	Pros rep atrial defect CL
35.53	Pros repair ventricle defect
35.54	Pros repair endocardial cushion
35.55	Pros rep ventricle defect CL
35.60	Graft repair HRT sep NOS
35.61	Graft repair atrial def
35.62	Graft repair ventricle def
35.63	Graft repair endocarp cushion
35.70	Heart septa repair NOS
35.71	Atria septa def rep NEC
35.72	Ventricular septal defect rep NEC
35.73	Endocardial cushion rep NEC
35.83	Total repair of truncus arteriosus
35.84	Total correction transposition of the great vessels
35.91	Interatrial transposition of venous return
35.92	Creation of conduit between right ventricle and pulmonary artery
35.93	Creation of conduit between left ventricle and aorta
35.94	Creation of conduit between atrium and pulmonary artery
35.95	Heart repair division
35.96	Percutaneous ballon valvuloplasty
35.97	Mitral valve repair with implant
35.98	Other heart septa ops
35.99	Other heart valve ops
36.03	Open coronary angioplasty

ICD-9	Narrative
36.04	Intracoronary artery thrombolytic infusion
36.06	Insert coronary artery stent
36.07	Insertion of drug-eluting coronary artery stent(s)
36.09	Other removal of coronary artery obstruction
36.10	Aortocoronary bypass NOS
36.11	Aortocoronary bypass 1 coronary artery
36.12	Aortocoronary bypass 2 coronary artery
36.13	Aortocoronary bypass 3 coronary artery
36.14	Aortocoronary bypass 4+ coronary artery
36.15	1 internal mammary-coronary artery bypass
36.16	2 internal mammary-coronary artery bypass
36.17	Abdominal coronary artery bypass
36.19	Other bypass anastomosis for heart revascularization NEC
36.2	Arterial implant revascularization
36.31	Open chest transmyocardial revascularization
36.32	Other transmyocardial revascularization

d. E-Code Exclusions

Identify encounters that may not be caused by the chronic condition such as motor vehicle accidents. A list of E-codes is included in Table 6.

**Table 6.**

E Codes	Narrative	Code
	Railway accident involving collision with rolling stock	E800.x
	Railway accident involving collision with other object	E801.x
	Railway accident involving derailment without antecedent collision	E802.x
	Railway accident involving explosion, fire, or burning	E803.x
	Fall in, on, or from railway train	E804.x
	Hit by rolling stock	E805.x

E Codes Narrative	Code
Other specified railway accident	E806.x
Railway accident of unspecified nature	E807.x
Motor vehicle traffic accident involving collision with train	E810.x
Motor vehicle traffic accident involving re-entrant collision with another motor vehicle	E811.x
Other motor vehicle traffic accident involving collision with motor vehicle	E812.x
Motor vehicle traffic accident involving collision with other vehicle	E813.x
Motor vehicle traffic accident involving collision with pedestrian	E814.x
Other motor vehicle traffic accident involving collision on the highway	E815.x
Motor vehicle traffic accident due to loss of control, without collision on the highway	E816.x
Noncollision motor vehicle traffic accident while boarding or alighting	E817.x
Other noncollision motor vehicle traffic accident	E818.x
Motor vehicle traffic accident of unspecified nature	E819.x
Nontraffic accident involving motor-driven snow vehicle	E820.x
Nontraffic accident involving other off-road motor vehicle	E821.x
Other motor vehicle nontraffic accident involving collision with moving object	E822.x
Other motor vehicle nontraffic accident involving collision with stationary object	E823.x
Other motor vehicle nontraffic accident while boarding and alighting	E824.x
Other motor vehicle nontraffic accident of other and unspecified nature	E825.x
Pedal MYcle accident	E826.x
Animal-drawn vehicle accident	E827.x
Accident involving animal being ridden	E828.x
Other road vehicle accidents	E829.x
Accident to watercraft causing submersion	E830.x
Accident to watercraft causing other injury	E831.x
Other accidental submersion or drowning in water transport accident	E832.x
Fall on stairs or ladders in water transport	E833.x
Other fall from one level to another in water transport	E834.x
Other and unspecified fall in water transport	E835.x

E Codes Narrative	Code
Machinery accident in water transport	E836.x
Explosion, fire, or burning in watercraft	E837.x
Other and unspecified water transport accident	E838.x
Accident to powered aircraft at takeoff or landing	E840.x
Accident to powered aircraft, other and unspecified	E841.x
Accident to unpowered aircraft	E842.x
Fall in, on, or from aircraft	E843.x
Other specified air transport accidents	E844.x
Accident involving spacecraft	E845.x
Accidents involving powered vehicles used solely within the buildings and premises of industrial or commercial establishment	E846
Accidents involving cable cars not running on rails	E847
Accidents involving other vehicles, not elsewhere classifiable	E848
<b>Accidents by fire or flame</b>	<b>E890.x</b>
E890.0 Explosion caused by conflagration	E890.0
E890.1 Fumes from combustion of polyvinylchloride [PVC] and similar material in conflagration	E890.1
E890.2 Other smoke and fumes from conflagration	E890.2
E890.3 Burning caused by conflagration	E890.3
E890.8 Other accident resulting from conflagration	E890.8
E890.9 Unspecified accident resulting from conflagration in private dwelling	E890.9
<b>Conflagration in other and unspecified building or structure</b>	<b>E891.x</b>
E891.0 Explosion caused by conflagration	E891.0
E891.1 Fumes from combustion of polyvinylchloride [PVC] and similar material in conflagration	E891.1
E891.2 Other smoke and fumes from conflagration	E891.2
E891.3 Burning caused by conflagration	E891.3
E891.8 Other accident resulting from conflagration	E891.8
E891.9 Unspecified accident resulting from conflagration of other and unspecified building or structure	E891.9

E Codes Narrative	Code
Conflagration not in building or structure	E892
<b>Accident caused by ignition of clothing</b>	<b>E893.x</b>
E893.0 From controlled fire in private dwelling	E893.0
E893.1 From controlled fire in other building or structure	E893.1
E893.2 From controlled fire not in building or structure	E893.2
E893.8 From other specified sources	E893.8
E893.9 Unspecified source	E893.9
Ignition of highly inflammable material	E894
Accident caused by controlled fire in private dwelling	E895
Accident caused by controlled fire in other and unspecified building or structure	E896
Accident caused by controlled fire not in building or structure	E897
<b>Accident caused by other specified fire and flames</b>	<b>E898.x</b>
E898.0 Burning bedclothes	E898.0
E898.1 Other Burn Accident	E898.1
Accident caused by unspecified fire	E899
<b>Injury by Excessive heat</b>	<b>E900.x</b>
E900.0 Due to weather conditions	E900.0
E900.1 Of man-made origin	E900.1
E900.9 Of unspecified origin	E900.9
<b>Injury by Excessive cold</b>	<b>E901.x</b>
E901.0 Due to weather conditions	E901.0
E901.1 Of man-made origin	E901.1
E901.8 Other specified origin	E901.8
E901.9 Of unspecified origin	E901.9
<b>Injury by Hunger, thirst, exposure, and neglect</b>	<b>E904.x</b>

E Codes Narrative	Code
E904.0 Abandonment or neglect of infants and helpless persons	E904.0
E904.1 Lack of food	E904.1
E904.2 Lack of water	E904.2
E904.3 Exposure (to weather conditions), not elsewhere classifiable	E904.3
E904.9 Privation, unqualified	E904.9
<b>Other injury caused by animals</b>	<b>E906.x</b>
E906.0 Dog bite	E906.0
E906.1 Rat bite	E906.1
E906.2 Bite of nonvenomous snakes and lizards	E906.2
E906.3 Bite of other animal except arthropod	E906.3
E906.4 Bite of nonvenomous arthropod	E906.4
E906.5 Bite by unspecified animal	E906.5
E906.8 Other specified injury caused by animal	E906.8
E906.9 Unspecified injury caused by animal	E906.9
<b>E907 Lightning</b>	<b>E907</b>
<b>Cataclysmic storms, and floods resulting from storms</b>	<b>E908.x</b>
E908.0 Hurricane	E908.0
E908.1 Tornado	E908.1
E908.2 Floods	E908.2
E908.3 Blizzard (snow) (ice)	E908.3
E908.4 Dust storm	E908.4
E908.8 Other cataclysmic storms	E908.8
E908.9 Unspecified cataclysmic storms, and floods resulting from storms	E908.9
<b>Cataclysmic earth surface movements and eruptions</b>	<b>E909.x</b>
E909.0 Earthquakes	E909.0
<b>Struck accidentally by falling object</b>	<b>E916</b>

E Codes Narrative	Code
<b>Striking against or struck accidentally by objects or persons</b>	<b>E917.x</b>
E917.0 In sports without subsequent fall	E917.0
E917.1 Caused by a crowd, by collective fear or panic without subsequent fall	E917.1
E917.2 In running water without subsequent fall	E917.2
E917.3 Furniture without subsequent fall	E917.3
E917.4 Other stationary object without subsequent fall	E917.4
E917.5 Object in sports with subsequent fall	E917.5
E917.6 Caused by a crowd, by collective fear or panic with subsequent fall	E917.6
E917.7 Furniture with subsequent fall	E917.7
E917.8 Other stationary object with subsequent fall	E917.8
E917.9 Other striking against with or without subsequent fall	E917.9
<b>Caught accidentally in or between objects</b>	<b>E918</b>
<b>Accidents caused by machinery</b>	<b>E919.x</b>
E919.0 Agricultural machines	E919.0
E919.1 Mining and earth-drilling machinery	E919.1
E919.2 Lifting machines and appliances	E919.2
E919.3 Metalworking machines	E919.3
E919.4 Woodworking and forming machines	E919.4
E919.5 Prime movers, except electrical motors	E919.5
E919.6 Transmission machinery	E919.6
E919.7 Earth moving, scraping, and other excavating machines	E919.7
E919.8 Other specified machinery	E919.8
E919.9 Unspecified machinery	E919.9
<b>Accident caused by firearm and air gun missile</b>	<b>E922.x</b>
E922.0 Handgun	E922.0
E922.1 Shotgun (automatic	E922.1

E Codes Narrative	Code
E922.2 Hunting rifle	E922.2
E922.3 Military firearms	E922.3
E922.4 Air gun	E922.4
E922.5 Paintball gun	E922.5
E922.8 Other specified firearm missile	E922.8
E922.9 Unspecified firearm missile	E922.9
<b>Accident caused by hot substance or object, caustic or corrosive material, and steam</b>	<b>E924.x</b>
E924.0 Hot liquids and vapors, including steam	E924.0
E924.1 Caustic and corrosive substances	E924.1
E924.2 Hot (boiling) tap water	E924.2
E924.8 Other	E924.8
E924.9 Unspecified	E924.9
<b>Accident caused by electric current</b>	<b>E925.x</b>
E925.0 Domestic wiring and appliances	E925.0
E925.1 Electric power generating plants, distribution stations, transmission lines	E925.1
E925.2 Industrial wiring, appliances, and electrical machinery	E925.2
E925.8 Other electric current	E925.8
E925.9 Unspecified electric current	E925.9
<b>Exposure to radiation</b>	<b>E926.x</b>
E926.0 Radiofrequency radiation	E926.0
E926.1 Infra-red heaters and lamps	E926.1
E926.2 Visible and ultraviolet light sources	E926.2
E926.3 X-rays and other electromagnetic ionizing radiation	E926.3
E926.4 Lasers	E926.4
E926.5 Radioactive isotopes	E926.5
E926.8 Other specified radiation	E926.8
E926.9 Unspecified radiation	E926.9

E Codes Narrative	Code
<b>Overexertion and strenuous and repetitive movements or loads</b>	<b>E927.x</b>
E927.0 Overexertion from sudden strenuous movement	E927.0
E927.1 Overexertion from prolonged static position	E927.1
E927.2 Excessive physical exertion from prolonged activity	E927.2
E927.3 Cumulative trauma from repetitive motion	E927.3
E927.4 Cumulative trauma from repetitive impact	E927.4
E927.8 Other overexertion and strenuous and repetitive movements or loads	E927.8
E927.9 Unspecified overexertion and strenuous and repetitive movements or loads	E927.9
<b>Other and unspecified environmental and accidental causes</b>	<b>E928.x</b>
E928.0 Prolonged stay in weightless environment	E928.0
E928.1 Exposure to noise	E928.1
E928.2 Vibration	E928.2
E928.3 Human bite	E928.3
E928.4 External constriction caused by hair	E928.4
E928.5 External constriction caused by other object	E928.5
E928.6 Environmental exposure to harmful algae and toxins	E928.6
E928.8 Other	E928.8
E928.9 Unspecified accident	E928.9

## e. Pregnancy Exclusions

Identify encounters due to birth/delivery. A list of birth/delivery codes is included in Table 7.

Table 7. Delivery Codes

ICD-9 –CM Diagnosis	ICD-9 Procedures	CPT Procedure Codes
640.x1, 641.x1, 642.x1, 642.x2, 643.x1, 644.21, 645.x1, 646.x1, 646.12, 646.22, 646.42, 646.52, 646.62, 646.82, 647.x1, 647.x2, 648.x1, 648.x2, 649.x1, 649.02, 649.12, 649.22, 649.32, 649.42, 649.62, 650, 651.x1, 652.x1, 653.x1, 654.x1, 654.02, 654.12, 654.32, 654.42, 654.52, 654.62, 654.72, 654.82, 654.92, 655.x1, , 656.x1, 657.01, 658.x1, 659.x1, 660.x1, 661.x1, 662.x1, 663.x1, 664.x1, 665.01, 665.11, 665.22, 665.31, 665.41, 665.51, 665.61, 665.71, 665.72, 665.81,	72.0-73.99, 74.0, 74.1, 74.2, 74.4, 74.99	59400, 59409, 59410, 59510, 59514, 59515, 59610, 59612, 59614, 59618, 59620, 59622

<p>665.82, 665.91, 665.92, 666.x2, 667.x2, 668.x1, 668.x2, 669.01, 669.02, 669.11, 669.12, 669.21, 669.22, 669.32, 669.41, 669.42, 669.51, 669.61, 669.71, 669.81, 669.82, 669.91, 669.92, 670.x2, 670.12, 670.22, 670.32, 670.82, 671.01, 671.02, 671.11, 671.12, 671.21, 671.22, 671.31, 671.42, 671.51, 671.52, 671.81, 671.82, 671.91, 671.92, 672.02, 673.x1, 673.x2, 674.01, 674.51, 674.x2, 675.x1, 675.x2, 676.x1, 676.x2, V22.x, V23.x, V24.x, V27.0, V27.1, V27.2, V27.3, V27.4, V27.5, V27.6, V27.7</p> <p>760.x, 760.6x, 760.7x, 761.x, 762.x, 763.x, 763.8x, 764.xx, 765.xx, 767.x, 767.1x, 768.x, 768.7x, 769.x-</p> <p>V30.x- V39.x</p> <p>V30.0x-V39.0x</p>		
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*Step 4. Calculate the Numerator*

Subtract the encounters identified in Step 3, above, from those identified in Step 2. These are the numerator events.

*Step 5. Calculate the Rate of Adverse Chronic Disease Outcomes*

The annual rate of Adverse Outcomes of Chronic Disease is calculated by dividing the number of numerator events by the number of individuals in the denominator, and is expressed as.

**The number of adverse outcomes**  
**Per 1,000 individuals with asthma, hypertension, diabetes and/or congestive heart failure**

*Step 6. Calculate the Death Rate*

From the sentinel events report submitted to DHCF, identify any individuals in the denominator population who have died during the measurement year. This is a second numerator. Divide this numerator by the denominator above. This death rate is tracked along with the *Rate of Adverse Chronic Disease Outcomes* to assess whether efforts to reduce unnecessary ED and inpatient encounters have any unintended adverse consequences.

- <sup>i</sup>These elements comprise the Chronic Care Model; see Bodenheimer T, Wagner E, Grumbach K. Improving primary care for patients with chronic illness: the chronic care model. *JAMA* 2002; 288:1775-1779.
- <sup>ii</sup>Not all chronic disease management efforts have the same ability to improve outcomes. For example, review of 15 Medicare demonstration projects designed to measure the effect of care coordination by itself on hospital utilization, found that the two projects that were judged to have the potential to generate savings from less frequent hospitalizations had important attributes not found in the other studies: first the care coordinators interacted in person with patients, not by telephone, and second the care coordinators collaborated closely with patients' physicians, most often by being located in the physicians' offices.  
See: Peikes D, Chen A, Schore J, et al. Effects of Care coordination on hospitalization, quality of care, and health care expenditures among medicare beneficiaries: 15 randomized trials. *J Am Med Assoc* 2009; 301:603-618.
- <sup>iii</sup>National Heart, Lung, and Blood Institute, National Asthma Education and Prevention Program. Expert Panel Report 2: Guidelines for the diagnosis and management of asthma. In: National Institutes of Health pub. No. 97-4051. Bethesda, MD; 1997.
- <sup>iv</sup>Gibson PG, Powell H, Coughlan J, Wilson AJ, Abramson M, Haywood P, Bauman A, Hensley MJ, Walters EH. Self-management education and regular practitioner review for adults with asthma. *Cochrane Database of Systematic Reviews* 2002, Issue 3. Art. No.: CD001117. DOI: 10.1002/14651858.CD001117.
- <sup>v</sup>Lwebuga-Makusa JS, Pszonak R. Patterns of inpatient and outpatient care for asthma in Erie and Niagara Counties, western New York State. *J Asthma* 2001;38:155-160.
- <sup>vi</sup>Blais L, Ernst P, Boivin JF, et al. Inhaled corticosteroids and the prevention of readmission to hospital for asthma. *Am J Respir Crit Care Med* 1998;158:126-132.  
Donahue JG, Weiss St, Livingston JM, et al. Inhaled steroids and the risk of hospitalization for asthma. *JAMA* 1997;277:887-891.
- <sup>vii</sup>Mayo PH, Richman J, Harris HW. Results of a program to reduce admissions for adult asthma. *Ann Intern Med.* 1990;112:864-871.
- <sup>viii</sup>Teach SJ, Crain EF, Quint DB, et al. Improved Asthma Outcomes in High-Morbidity Pediatric Population. Results of an Emergency Department-Based Randomized Clinical Trial. *Arch Ped Adolesc Med.* 2006; 160:535-541.
- <sup>ix</sup>Greineder DK, Loane KC, Parks P. Randomized controlled trial of a pediatric asthma program *J Allergy Clin Immunol.* 1999;103:436-440. For study summaries see: Bodenheimer T, Wagner EH, Grumbach K. Improving Primary Care for Patients With Chronic Illness: The Chronic Care Model, Part 2. *JAMA.* 2002; 288:1909-1914.
- <sup>x</sup>Objective outside assessment (The Mercer Group) of cost savings to the state resulting from the use of chronic care model principals into the health care delivery system for state Medicaid patients with chronic diseases has been estimated to be between \$161 and \$300 million per year in 2006.  
See: Steiner BD, Denham AC, Ashkin E, Newton WP, Wroth T, Dobson LA. Community Care of North Carolina: Improving Care Through Community Health Networks. *Ann Fam Med* 2008; 6:361-367.
- <sup>xi</sup>Department of Health and Human Services, Agency for Healthcare Research and Quality Guide to Prevention Quality Indicators: Hospital Admission for Ambulatory Care Sensitive Conditions; Available at <http://www.qualityindicators.ahrq.gov> Accessed 11/14/2008.  
Pediatric Quality Indicators Download. AHRQ Quality Indicators. March 2007. Agency for Healthcare Research and Quality, Rockville, MD.  
<http://www.qualityindicators.ahrq.gov/pdi-download.htm>  
(Measures of Pediatric Health Care Quality Based on Hospital Administrative Data: The Pediatric Quality Indicators: Technical Report)
- <sup>xii</sup>Physician panelists in the AHRQ Quality Indicators review noted that hospitals that have short stay units may appear to have lower rates of asthma admissions without actually having higher quality of care; see: Department of Health and Human Services, Agency for Healthcare Research and Quality Guide to Prevention Quality Indicators: Hospital Admission for Ambulatory Care Sensitive Conditions; Available at <http://www.qualityindicators.ahrq.gov> Accessed 11/14/2008.
- <sup>xiii</sup>Gaster B, Hirsch IB. The effects of improved glycemic control on complications in type 2 diabetes. *Arch Intern Med* 1998;158:134-140.
- <sup>xiv</sup>Olivarius NF, Beck-Nielsen H, Andreasen AH, Horder M, Pedersen PA. Randomized controlled trial of structured personal care of type 2 diabetes mellitus. *BMJ.* 2001;323:970-975.
- <sup>xv</sup>Wagner ED, Grothaus LC, Sandhu N, et al. Chronic Care Clinics for Diabetes in Primary Care. A system-wide randomized trial. *Diabetes Care*:24:695-700, 2001.
- <sup>xvi</sup>Balamurugan A, Ohsfeldt R, Hughes T Phillips M. Diabetes self-management education program for Medicaid recipients: a continuous quality improvement process. *Diabetes Educ.* 2006; 32:893-900.
- <sup>xvii</sup>Menzin J, Langley-Hawthorne C, Friedman M, et al. Potential Short-term economic benefits of improved glycemic control: a managed care perspective. *Diabetes Care.* 2001;24:51-55.
- <sup>xviii</sup>Gray A, Raikou M, McGuire A, et al on behalf of the United Kingdom Prospective Study Group. Cost effectiveness of an intensive blood glucose control policy in patients with type 2 diabetes: economic analysis alongside randomized controlled trial (UKPDS 41). *BMJ* 2000;320:1373-1378.

- <sup>xix</sup> Boren SA, Fitzner KA, Panhalkar PS, Specker JE. Costs and Benefits Associated With Diabetes Education: A Review of the Literature. *Diabetes Educ* 2009; 35:72-96.
- <sup>xx</sup> **Intensive blood-glucose control with sulphonylureas or insulin compared with conventional treatment and risk of complications in patients with type 2 diabetes (UKPDS 33). UK Prospective Diabetes Study (UKPDS) Group.** - *Lancet* - 12-SEP-1998; 352(9131): 837-53  
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**Table: HEDIS Effectiveness of Care Domain Comparison Between MY 2010 and MY 2011**

MY 2010 to MY 2011 HEDIS Measures Comparison	MCO A		MCO B		MCO C		DC Weighted Average MY 2010	DC Weighted Average MY 2011	% +/- MY 2010 to MY 2011	National HEDIS Average MY 2011	National HEDIS 25th Percentile MY 2011	National HEDIS 75th Percentile MY 2011	National HEDIS 90th Percentile MY 2011
	MY 2010 %	MY 2011 %	MY 2010 %	MY 2011 %	MY 2010 %	MY 2011 %							
Adult BMI Assessment	36.01	49.15	40.73	64.23	55.23	70.27	41.19	55.30	14.11	52.56	46.90	70.6	77.39
Annual Monitoring for Patients on Persistent Medications - ACE or ARB	83.87	79.88	NA	NA	84.17	87.67	83.89	82.42	(1.47)	85.80	83.71	89.18	91.33
Annual Monitoring for Patients on Persistent Medications - Anticonvulsants	53.49	60.78	NA	NA	NA	55.56	53.49	59.11	5.62	65.13	61.70	70.27	74.64
Annual Monitoring for Patients on Persistent Medications - Digoxin	NA	NA	NA	90.28	87.93	93.41	95.56						
Annual Monitoring for Patients on Persistent Medications - Diuretics	80.89	76.24	NA	NA	79.56	85.63	80.80	79.27	(1.53)	85.34	83.15	88.9	91.3
Annual Monitoring for Patients on Persistent Medications - Total	81.66	77.62	NA	NA	81.21	85.98	81.63	80.33	(1.30)	83.79	80.96	87.02	88.55
Antidepressant Medication Management - Effective Acute Phase Treatment	71.26	41.43	NA	NA	33.33	55.08	65.68	45.10	(20.58)	51.11	46.98	52.74	61.58
Antidepressant Medication Management - Effective Continuation Phase Treatment	59.77	24.61	NA	NA	20.00	32.20	53.92	26.65	(27.27)	34.43	29.96	37.31	42.94
Appropriate Testing for Children With Pharyngitis	67.17	77.25	NA	76.32	64.10	76.61	66.81	77.09	10.28	66.66	58.50	76.37	83.65
Appropriate Treatment for Children With Upper Respiratory Infection	94.43	95.74	94.26	93.51	94.81	96.37	94.47	95.80	1.33	85.32	80.64	89.96	93.2
Avoidance of Antibiotic Treatment in Adults with Acute Bronchitis	25.36	24.36	NA	NA	51.35	31.77	30.79	26.64	(4.15)	24.30	18.98	26.67	33.33
Breast Cancer Screening	56.55	55.47	NA	NA	42.95	46.14	52.48	52.55	0.07	50.43	44.82	56.58	62.76
Cervical Cancer Screening	73.13	68.30	NA	74.14	54.26	57.70	68.51	65.17	(3.34)	66.59	61.37	73.24	78.51
Childhood Immunization Status - Combo 10	22.38	29.68	15.71	14.12	11.20	23.84	20.55	27.98	7.43	17.28	11.49	21.41	27.37
Childhood Immunization Status - Combo 2	83.70	81.75	84.29	81.18	74.48	79.08	82.36	81.12	(1.24)	74.51	69.25	80.78	84.18
Childhood Immunization Status - Combo 3	80.54	74.21	82.86	72.94	68.49	72.99	78.83	73.90	(4.93)	70.69	64.72	77.49	82.39
Childhood Immunization Status - Combo 4	44.77	45.01	42.86	43.53	35.16	43.55	43.30	44.64	1.34	34.28	27.84	40.45	47.19

**Table: HEDIS Effectiveness of Care Domain Comparison Between MY 2010 and MY 2011**

MY 2010 to MY 2011 HEDIS Measures Comparison	MCO A		MCO B		MCO C		DC Weighted Average MY 2010	DC Weighted Average MY 2011	% +/-MY 2010 to MY 2011	National HEDIS Average MY 2011	National HEDIS 25% Percentile MY 2011	National HEDIS 75% Percentile MY 2011	National HEDIS 90% Percentile MY 2011
	MY 2010 %	MY 2011 %	MY 2010 %	MY 2011 %	MY 2010 %	MY 2011 %							
Childhood Immunization Status - Combo 5	55.96	61.56	28.57	30.59	34.38	50.61	52.04	58.33	6.29	51.83	46.47	59.74	64.46
Childhood Immunization Status - Combo 6	47.69	45.50	62.86	58.82	40.63	49.64	47.06	46.76	(0.30)	37.92	30.92	45.39	54.38
Childhood Immunization Status - Combo 7	33.09	37.96	18.57	15.29	17.19	29.44	30.35	35.48	5.13	27.11	20.92	33.5	38.51
Childhood Immunization Status - Combo 8	28.22	32.36	34.29	41.18	21.86	32.60	27.45	32.62	5.17	20.90	14.60	25.86	31.12
Childhood Immunization Status - Combo 9	36.50	41.85	25.71	24.71	22.14	37.47	34.09	40.45	6.36	30.41	22.75	37.86	44.98
Childhood Immunization Status - DTaP	85.16	84.43	88.57	88.24	77.86	80.54	84.18	83.62	(0.56)	79.84	75.94	85.15	88.47
Childhood Immunization Status - Hepatitis A	48.42	52.55	42.86	56.47	40.89	48.66	47.16	51.74	4.58	39.25	33.09	45.76	52.79
Childhood Immunization Status - Hepatitis B	95.38	91.48	94.29	90.59	86.98	91.00	94.11	91.35	(2.76)	88.81	86.86	93.7	95.38
Childhood Immunization Status - HiB	97.32	92.46	97.14	97.65	87.24	90.75	95.83	92.19	(3.64)	91.02	88.88	94.83	96.11
Childhood Immunization Status - Influenza	51.34	53.77	68.57	71.76	47.40	59.12	51.23	55.41	4.18	44.77	37.22	54	59.66
Childhood Immunization Status - IPV	95.13	92.46	92.86	96.47	87.24	90.51	93.91	92.10	(1.81)	90.59	88.26	94.65	95.86
Childhood Immunization Status - MMR	95.13	94.89	97.14	100.00	90.10	90.51	94.44	94.00	(0.44)	90.90	88.81	93.53	95.42
Childhood Immunization Status - Pneumococcal Conjugate	83.94	77.86	92.86	84.71	72.40	76.89	82.48	77.79	(4.69)	79.36	74.94	85.17	87.83
Childhood Immunization Status - Rotavirus	62.29	74.70	34.29	35.29	39.06	55.72	58.11	69.43	11.32	62.28	56.78	70.32	74.02
Childhood Immunization Status - VZV	94.89	94.89	95.71	97.65	89.84	90.27	94.17	93.89	(0.28)	90.51	88.56	93.24	95.12
Chlamydia Screening in Women - Total	74.86	65.28	70.44	75.92	73.32	72.66	74.38	67.59	(6.79)	57.73	52.56	63.71	68.83
Chlamydia Screening in Women (Lower Age Stratification)	74.11	65.84	75.00	77.85	73.53	74.98	74.09	68.68	(5.41)	54.64	48.62	61.19	67.3
Chlamydia Screening in Women (Upper Age Stratification)	75.91	64.63	61.02	72.08	73.12	70.25	74.76	66.34	(8.42)	63.13	58.93	69.77	72.66
Cholesterol Management for Patients with Cardiovascular Conditions: LDL-C Control (<100 mg/dL)	43.75	39.19	NA	NA	24.24	26.00	33.84	33.87	0.03	42.08	35.13	49.18	55.56

**Table: HEDIS Effectiveness of Care Domain Comparison Between MY 2010 and MY 2011**

MY 2010 to MY 2011 HEDIS Measures Comparison	MCO A		MCO B		MCO C		DC Weighted Average MY 2010	DC Weighted Average MY 2011	% +/- MY 2010 to MY 2011	National HEDIS Average MY 2011	National HEDIS 25% Percentile MY 2011	National HEDIS 75% Percentile MY 2011	National HEDIS 90% Percentile MY 2011
	MY 2010 %	MY 2011 %	MY 2010 %	MY 2011 %	MY 2010 %	MY 2011 %							
Cholesterol Management for Patients with Cardiovascular Conditions: LDL-C Screening	81.25	77.03	NA	NA	75.76	76.00	78.46	76.61	(1.85)	81.99	78.49	85.12	88.83
Comprehensive Diabetes Care - Blood Pressure Control (<140/90)	52.19	40.12	NA	38.71	26.28	48.72	41.62	43.17	1.55	60.84	53.79	69.82	75.44
Comprehensive Diabetes Care - Eye Exams	57.48	53.74	NA	48.39	39.78	52.37	50.66	53.22	2.56	53.23	45.03	61.56	69.72
Comprehensive Diabetes Care - HbA1c Control (<7% for a selected population)	25.93	31.32	NA	NA	20.54	26.50	23.73	29.60	5.87	35.42	30.43	41.64	44.01
Comprehensive Diabetes Care - HbA1c Control (<8%)	43.43	44.72	NA	35.48	29.74	40.15	37.85	43.04	5.19	47.97	42.06	55.7	59.37
Comprehensive Diabetes Care - LDL-C Control (LDL-C<100 mg/dL)	32.85	21.50	NA	29.03	26.28	29.01	30.32	24.22	(6.10)	35.20	28.37	41.01	46.41
Comprehensive Diabetes Care - LDL-C Screening	73.54	71.98	NA	54.84	72.45	74.45	73.12	72.75	(0.37)	74.93	70.34	80.83	83.45
Comprehensive Diabetes Care - Medical Attention for Nephropathy	81.39	81.38	NA	38.71	78.83	83.03	80.35	81.70	1.35	77.80	73.48	82.74	86.93
Comprehensive Diabetes Care - Poor HbA1c Control >9% (lower rate is better)	46.72	47.22	NA	61.29	60.40	53.10	52.30	49.40	(2.90)	43.18	50.70	34.55	28.95
Controlling High Blood Pressure	NA	28.95	NA	NA	35.28	42.34	35.28	33.58	(1.70)	56.76	50.11	63.64	69.11
Disease Modifying Anti-Rheumatic Drug Therapy for Rheumatoid Arthritis	NA	76.47	NA	NA	NA	NA	NA	76.47	NA	68.88	63.54	75.09	80.98
FU After Hospitalization For Mental Illness - 30 days	65.90	73.12	41.18	56.00	27.59	39.18	52.17	59.77	7.60	64.99	57.29	77.47	84.28
FU After Hospitalization For Mental Illness - 7 days	52.16	62.53	29.41	42.00	17.24	26.45	39.61	47.96	8.35	46.50	32.20	57.68	69.57
FU Care for Children Prescribed ADHD Medication - Continuation & Maintenance Phase	63.16	NA	NA	NA	NA	NA	63.16	NA	NA	45.87	38.36	56.1	63.11
FU Care for Children Prescribed ADHD Medication - Initiation	36.80	30.82	33.33	39.36	NA	33.33	36.06	32.99	(3.07)	38.83	32.93	44.46	52.48
Immunizations for Adolescents - Combination 1	76.74	81.92	82.02	84.62	74.56	80.00	76.90	81.39	4.49	60.39	49.77	70.83	80.91
Lead Screening in Children	81.02	84.67	84.21	88.24	78.13	80.29	80.75	83.74	2.99	67.71	57.18	81.48	86.56

**Table: HEDIS Effectiveness of Care Domain Comparison Between MY 2010 and MY 2011**

MY 2010 to MY 2011 HEDIS Measures Comparison	MCO A		MCO B		MCO C		DC Weighted Average MY 2010	DC Weighted Average MY 2011	% +/- MY 2010 to MY 2011	National HEDIS Average MY 2011	National HEDIS 25% Percentile MY 2011	National HEDIS 75% Percentile MY 2011	National HEDIS 90% Percentile MY 2011
	MY 2010 %	MY 2011 %	MY 2010 %	MY 2011 %	MY 2010 %	MY 2011 %							
Persistence of Beta-Blocker Treatment after a Heart Attack	NA	NA	NA	80.49	72.92	88.24	91.2						
Pharmacotherapy Management of COPD Exacerbation - Bronchodilator	NA	80.95	NA	NA	NA	84.09	NA	82.56	NA	80.36	75.42	85.58	88.06
Pharmacotherapy Management of COPD Exacerbation - Systemic Corticosteroid	NA	54.76	NA	NA	NA	59.09	NA	56.98	NA	64.08	57.25	72.56	75.96
Use of Appropriate Medications for People with Asthma - Total	87.53	86.37	95.43	88.59	78.38	80.63	87.63	85.77	(1.86)	85.03	82.54	88.27	90.59
Use of Appropriate Medications for People with Asthma (5-11)	87.46	87.83	97.65	89.04	83.61	87.84	88.22	87.95	(0.27)	90.51	88.79	93.83	95.41
Use of Imaging Studies for Low Back Pain	80.97	88.57	NA	NA	78.68	80.86	80.47	86.11	5.64	75.77	72.04	79.38	82.04
Use of Spirometry Testing in the Assessment and Diagnosis of COPD	19.15	23.29	NA	NA	NA	33.33	19.15	27.56	8.41	32.02	25.87	38.38	44.01
Weight Assessment and Counseling for Nutrition and Physical Activity for Children/Adolescents - BMI percentile	28.78	45.50	42.82	78.59	65.94	65.12	34.59	51.79	17.20	46.05	29.20	66.67	77.13
Weight Assessment and Counseling for Nutrition and Physical Activity for Children/Adolescents - Counseling for Nutrition	62.44	54.74	42.58	77.62	60.83	74.39	60.83	60.44	(0.39)	50.11	42.82	67.15	77.61
Weight Assessment and Counseling for Nutrition and Physical Activity for Children/Adolescents - Counseling for Physical Activity	51.71	41.36	37.96	71.05	52.80	60.49	50.88	46.89	(3.99)	40.70	31.63	56.2	64.87

NA - Not Applicable (Small denominator < 30) OR Not Reported (Plan Chose Not to Report)

**Table: HEDIS Access/Availability of Services Domain Comparison Between MY 2010 and MY 2011**

MY 2010 to MY 2011 HEDIS Measures Comparison	MCO A		MCO B		MCO C		DC Weighted Average MY 2010	DC Weighted Average MY 2011	% +/- MY 2010 to MY 2011	National HEDIS Average MY 2011	National HEDIS 25th Percentile MY 2011	National HEDIS 75th Percentile MY 2011	National HEDIS 90th Percentile MY 2011
	MY 2010 %	MY 2011 %	MY 2010 %	MY 2011 %	MY 2010 %	MY 2011 %							
Adults' Access to Preventive/Ambulatory Health Services (20-44)	77.65	75.45	78.48	79.57	62.52	67.40	73.47	73.07	(0.40)	79.89	77.83	85.43	88.45
Adults' Access to Preventive/Ambulatory Health Services (45-64)	82.14	82.09	NA	NA	71.50	78.27	76.66	80.58	3.92	85.94	84.02	89.94	90.96
Adults' Access to Preventive/Ambulatory Health Services (65+)	75.00	90.91	NA	NA	NA	69.01	75.00	82.32	7.32	83.31	79.01	91.01	93.1
Annual Dental Visit (11-14 Yrs)	64.92	72.60	74.08	80.73	60.38	67.91	65.04	72.11	7.07	52.02	46.91	63.66	73.04
Annual Dental Visit (15-18 Yrs)	53.60	61.91	61.40	70.48	50.16	53.50	53.95	60.77	6.82	44.10	38.46	53.85	61.91
Annual Dental Visit (19-21 Yrs)	36.38	43.94	58.61	60.18	34.90	37.63	38.30	43.70	5.40	31.08	24.17	39.18	43.75
Annual Dental Visit (2-3 Yrs)	49.83	58.41	63.39	67.80	45.77	53.56	49.69	57.46	7.77	31.70	22.42	43.9	53.56
Annual Dental Visit (4-6 Yrs)	73.17	78.09	77.78	80.27	65.27	71.67	72.22	76.57	4.35	53.65	45.44	67.62	75.57
Annual Dental Visit (7-10 Yrs)	69.41	76.35	77.01	83.90	66.90	70.19	69.44	75.22	5.78	57.68	52.77	69.45	79.63
Annual Dental Visit (Total)	59.50	66.87	67.61	73.73	55.20	60.45	59.44	65.73	6.29	45.78	38.28	58.88	69.37
Children and Adolescents' Access To PCP (12-19 Yrs)	84.81	85.53	91.96	92.39	81.19	83.63	85.07	85.93	0.86	87.90	86.08	91.57	93.01
Children and Adolescents' Access To PCP (12-24 Months)	95.19	95.66	97.01	98.73	91.92	92.92	94.71	94.98	0.27	96.07	95.56	97.87	98.37
Children and Adolescents' Access To PCP (25 Months-6 Yrs)	87.72	89.26	94.07	91.44	81.14	85.97	87.03	88.52	1.49	88.16	86.57	91.36	92.62
Children and Adolescents' Access To PCP (7-11 Yrs)	93.01	92.72	96.38	96.20	86.48	89.00	92.24	92.40	0.16	89.54	87.58	92.86	94.51
Initiation & Engagement of Alcohol & Other Drug Dependence Treatment - Engagement Total	NA	NA	NA	11.93	5.84	18.56	21.24						
Initiation & Engagement of Alcohol & Other Drug Dependence Treatment - Initiation Total	NA	NA	NA	39.19	34.30	43.62	49.44						
Prenatal and Postpartum Care - Postpartum Care	51.71	53.53	64.15	61.29	46.47	48.91	50.82	52.52	1.70	64.14	58.75	71.03	74.45
Prenatal and Postpartum Care - Timeliness of Prenatal Care	69.27	75.91	35.85	53.23	69.34	64.48	68.54	72.58	4.04	82.71	80.42	90.23	93.33

NA - Not Applicable (Small denominator < 30) OR Not Reported (Plan Chose Not to Report)

**Table: HEDIS Use of Services Domain Comparison Between MY 2010 and MY 2011**

MY 2010 to MY 2011 HEDIS Measures Comparison	MCO A		MCO B			MCO C		DC Weighted Average MY 2010	DC Weighted Average MY 2011	% +/- MY 2010 to MY 2011	National HEDIS Average MY 2011	National HEDIS 25th Percentile MY 2011	National HEDIS 75th Percentile MY 2011	National HEDIS 90th Percentile MY 2011
	MY 2010 %	MY 2011 %	MY 2010 %	MY 2011 %	MY 2010 %	MY 2011 %								
Adolescent Well-Care Visits	54.26	59.61	63.26	68.37	43.55	53.28	53.59	58.86	5.27	53.59	42.09	57.58	64.33	
Frequency of Ongoing Prenatal Care (<21%)	NA	7.79	16.98	9.68	23.45	15.85	22.86	12.94	(9.92)	22.86	4.57	10.71	19.11	
Frequency of Ongoing Prenatal Care (>= 81%)	NA	32.36	22.64	16.13	27.95	30.57	27.47	30.44	2.97	27.47	52.55	72.99	82.75	
Frequency of Ongoing Prenatal Care (21-40%)	NA	13.38	11.32	25.81	15.76	16.35	15.36	15.85	0.49	15.36	3.23	7.3	13.14	
Frequency of Ongoing Prenatal Care (41-60%)	NA	15.09	16.98	25.81	16.51	16.86	16.55	16.72	0.17	16.55	5.47	10.34	14.01	
Frequency of Ongoing Prenatal Care (61-80%)	NA	31.39	32.08	22.58	16.32	20.38	17.75	24.06	6.31	17.75	11.34	17.79	21.39	
Well-Child Visits in the 3rd, 4th, 5th, and 6th Years of Life	81.71	75.41	86.91	86.62	67.60	74.35	79.95	75.49	(4.46)	79.95	65.51	79.32	82.94	
Well-Child Visits in the first 15 Months of Life (0 visits)	1.39	2.43	2.63	2.04	4.33	3.16	1.94	2.58	0.64	1.94	0.73	2.43	3.97	
Well-Child Visits in the first 15 Months of Life (1 visit)	1.94	3.89	2.63	NA	2.29	3.65	2.01	3.84	1.83	2.01	0.97	2.68	3.89	
Well-Child Visits in the first 15 Months of Life (2 visits)	2.22	4.38	NA	6.12	2.80	3.89	2.33	4.30	1.97	2.33	1.97	3.89	5.14	
Well-Child Visits in the first 15 Months of Life (3 visits)	5.83	6.08	5.26	10.20	7.38	9.00	6.10	6.77	0.67	6.10	3.67	6.75	9.49	
Well-Child Visits in the first 15 Months of Life (4 visits)	10.28	12.65	15.79	4.08	12.98	7.30	10.86	11.36	0.50	10.86	7.18	11.34	13.14	
Well-Child Visits in the first 15 Months of Life (5 visits)	11.94	15.09	5.26	24.49	19.34	14.84	13.15	15.19	2.04	13.26	13.38	19.71	22.14	
Well-Child Visits in the first 15 Months of Life (6 or more visits)	66.39	55.47	68.42	53.06	43.26	58.15	62.28	56.01	(6.27)	62.28	54.26	70.59	77.31	

NA - Not Applicable (Small denominator < 30) OR Not Reported (Plan Chose Not to Report)

Table: HEDIS Use of Services Domain Comparison Between MY 2010 and MY 2011

MY 2010 to MY 2011 HEDIS Measures Comparison	MCO A		MCO B		MCO C		DC Weighted Average MY 2010	DC Weighted Average MY 2011	% +/- MY 2010 to MY 2011	National HEDIS Average MY 2011	National HEDIS 25th Percentile MY 2011	National HEDIS 75th Percentile MY 2011	National HEDIS 90th Percentile MY 2011
	MY 2010 %	MY 2011 %	MY 2010 %	MY 2011 %	MY 2010 %	MY 2011 %							
Adults' Access to Preventive/Ambulatory Health Services (Total)	78.54	77.60	78.48	79.57	66.10	71.73	74.31	75.65	1.34	81.79	79.75	86.67	89.33
Board Certification - Percent of Family Medicine Physicians	73.38	83.13	100.00	98.13	84.54	69.37	80.60	83.30	2.70	76.87	69.98	84.83	91.73
Board Certification - Percent of Geriatricians	81.82	66.67	100.00	100.00	92.86	75.00	89.70	75.00	(14.70)	75.61	66.67	87.50	100.00
Board Certification - Percent of Internal Medicine Physicians	68.08	81.38	98.82	98.04	85.23	74.62	85.80	89.20	3.40	79.32	74.29	86.24	91.37
Board Certification - Percent of OB/GYNs	69.05	87.57	100.00	100.00	80.00	81.93	79.70	89.90	10.20	78.41	74.40	84.67	90.00
Board Certification - Percent of Other Physician Specialists	71.85	79.39	87.60	85.73	72.93	73.80	77.10	79.90	2.80	80.08	75.99	87.21	90.51
Board Certification - Percent of Pediatricians	76.06	77.59	97.27	98.85	92.50	85.15	91.00	90.50	(0.50)	82.26	78.47	89.24	93.10
Call Abandonment (lower rate is better)	3.69	0.98	5.31	5.60	3.64	2.33	3.99	2.29	(1.70)	2.64	2.97	1.30	0.99
Call Answer Timeliness	74.12	94.91	85.04	84.60	86.42	86.79	78.70	91.03	12.33	83.26	80.09	89.77	93.57
Comprehensive Diabetes Care - Blood Pressure Control (<140/80)	NA	25.72	NA	25.81	14.60	28.83	14.60	26.83	12.23	39.37	32.91	46.20	52.99
Human Papillomavirus Vaccine for Female Adolescents	NA	27.01	NA	35.71	NA	34.98	NA	29.22	NA	NA	NA	NA	NA
Immunizations for Adolescents - Meningococcal	85.42	88.85	93.26	95.90	82.23	87.82	85.66	89.65	3.99	63.04	53.04	73.89	82.84
Immunizations for Adolescents - Tdap/Td	83.33	85.38	83.71	86.67	79.44	82.91	82.80	84.28	1.48	75.62	69.54	85.16	90.27
Initiation & Engagement of Alcohol & Other Drug Dependence Treatment - Engagement (13-17 Yrs)	NA	NA	NA	17.37	9.09	27.11	31.53						
Initiation & Engagement of Alcohol & Other Drug Dependence Treatment - Engagement (18+ Yrs)	NA	NA	NA	11.49	5.40	17.81	20.67						
Initiation & Engagement of Alcohol & Other Drug Dependence Treatment - Initiation (13-17 Yrs)	NA	NA	NA	40.49	32.81	48.13	56.85						

**Table: HEDIS Use of Services Domain Comparison Between MY 2010 and MY 2011**

MY 2010 to MY 2011 HEDIS Measures Comparison	MCO A		MCO B		MCO C		DC Weighted Average MY 2010	DC Weighted Average MY 2011	% +/- MY 2010 to MY 2011	National HEDIS Average MY 2011	National HEDIS 25% Percentile MY 2011	National HEDIS 75% Percentile MY 2011	National HEDIS 90% Percentile MY 2011
	MY 2010 %	MY 2011 %	MY 2010 %	MY 2011 %	MY 2010 %	MY 2011 %							
Initiation & Engagement of Alcohol & Other Drug Dependence Treatment - Initiation (18+ Yrs)	NA	NA	NA	NA	NA	NA	NA	NA	NA	39.38	34.57	43.61	50.13
Medical Compliance 50% (12-18 Years)	NA	47.88	NA	53.13	NA	40.54	NA	48.07	NA	NA	NA	NA	NA
Medical Compliance 50% (19-50 Years)	NA	60.60	NA	66.67	NA	59.15	NA	60.88	NA	NA	NA	NA	NA
Medical Compliance 50% (5-11 Years)	NA	44.02	NA	53.85	NA	35.38	NA	44.14	NA	NA	NA	NA	NA
Medical Compliance 50% (51-64 Years)	NA	74.60	NA	NA	NA	74.19	NA	74.46	NA	NA	NA	NA	NA
Medical Compliance 50% (Total)	NA	50.98	NA	56.36	NA	50.49	NA	51.51	NA	NA	NA	NA	NA
Medical Compliance 75% (12-18 Years)	NA	25.85	NA	37.50	NA	21.62	NA	27.60	NA	NA	NA	NA	NA
Medical Compliance 75% (19-50 Years)	NA	38.08	NA	58.33	NA	30.99	NA	38.63	NA	NA	NA	NA	NA
Medical Compliance 75% (5-11 Years)	NA	20.11	NA	33.85	NA	13.85	NA	20.85	NA	NA	NA	NA	NA
Medical Compliance 75% (51-64 Years)	NA	42.86	NA	NA	NA	51.61	NA	45.75	NA	NA	NA	NA	NA
Medical Compliance 75% (Total)	NA	27.39	NA	40.61	NA	26.96	NA	28.79	NA	NA	NA	NA	NA
Use of Appropriate Medications for People with Asthma (12-18)	NA	88.72	NA	86.30	NA	80.43	NA	87.27	NA	86.64	83.74	89.60	92.30
Use of Appropriate Medications for People with Asthma (12-50)	<b>57.58</b>	NA	93.75	NA	74.71	NA	62.65	NA	NA	NA	NA	NA	NA
Use of Appropriate Medications for People with Asthma (19-50)	NA	82.51	NA	92.11	NA	78.02	NA	82.42	NA	74.81	69.43	81.17	84.93
Use of Appropriate Medications for People with Asthma (51-64)	NA	85.14	NA	NA	NA	73.81	NA	81.04	NA	73.16	66.96	81.58	85.59
Weight Assessment and Counseling for Nutrition and Physical Activity for Children/Adolescents - BMI percentile (12-17 years)	32.58	50.93	41.86	77.46	68.84	69.47	38.32	57.37	19.05	46.58	29.63	67.37	75.00

Table: HEDIS Use of Services Domain Comparison Between MY 2010 and MY 2011

MY 2010 to MY 2011 HEDIS Measures Comparison	MCO A		MCO B		MCO C		DC Weighted Average MY 2010	DC Weighted Average MY 2011	% +/- MY 2010 to MY 2011	National HEDIS Average MY 2011	National HEDIS 25% Percentile MY 2011	National HEDIS 75% Percentile MY 2011	National HEDIS 90% Percentile MY 2011
	MY 2010 %	MY 2011 %	MY 2010 %	MY 2011 %	MY 2010 %	MY 2011 %							
Weight Assessment and Counseling for Nutrition and Physical Activity for Children/Adolescents - BMI percentile (3-11 years)	26.98	43.56	43.86	79.80	64.47	63.08	32.69	49.50	16.81	45.93	28.00	68.55	77.97
Weight Assessment and Counseling for Nutrition and Physical Activity for Children/Adolescents - Counseling for Nutrition (12-17 years)	56.82	50.00	39.53	76.53	62.32	74.05	55.61	57.63	2.02	46.87	36.56	63.57	74.81
Weight Assessment and Counseling for Nutrition and Physical Activity for Children/Adolescents - Counseling for Nutrition (3-11 years)	65.11	56.44	45.92	78.79	60.07	74.55	63.49	61.48	(2.01)	51.66	43.38	69.33	78.79
Weight Assessment and Counseling for Nutrition and Physical Activity for Children/Adolescents - Counseling for Physical Activity (12-17 years)	53.03	43.52	33.95	73.71	62.32	73.28	52.12	52.71	0.59	43.22	33.59	60.00	69.11
Weight Assessment and Counseling for Nutrition and Physical Activity for Children/Adolescents - Counseling for Physical Activity (3-11 years)	51.08	40.59	42.35	68.18	47.99	54.48	50.56	44.89	(5.67)	39.48	30.4	54.48	63.57

NA - Not Applicable (Small denominator < 30) OR Not Reported (Plan Chose Not to Report)

Table: Adult CAHPS Measures Comparison Between MY 2010 and MY 2011

Adult CAHPS Measure	MCO A		MCO B		MCO C		DC Average		National CAHPS Adult Medicaid Average	National CAHPS Adult 75th Percentile
	MY 2010 %	MY 2011 %	MY 2010 %	MY 2011 %	MY 2010 %	MY 2011 %	MY 2010 %	MY 2011 %	MY 2011	MY 2011
Getting Needed Care	71.10%	69.40%	NA	NA	70.12%	65.24%	70.61%	68.25%	75.57%	80.58%
Getting Care Quickly	76.70%	70.80%	NA	NA	74.91%	72.29%	75.81%	72.67%	80.37%	83.63%
How Well Doctors Communicate	88.00%	91.90%	NA	NA	88.39%	88.04%	88.20%	89.44%	87.83%	89.98%
Customer Service	81.90%	82.10%	NA	NA	78.41%	73.87%	80.16%	78.13%	80.42%	83.19%
Shared Decision Making	58.80%	64.40%	NA	NA	58.99%	55.74%	58.90%	59.71%	60.89%	63.79%
Health Promotion and Education	60.60%	65.10%	NA	NA	60.34%	62.46%	60.34%	62.63%	59.36%	62.50%
Coordination of Care	76.40%	78.30%	NA	NA	74.07%	69.44%	75.24%	73.94%	77.52%	80.99%
Rating of Health Care	64.60%	68.00%	NA	NA	68.06%	67.05%	66.33%	67.70%	69.91%	73.53%
Rating of Personal Doctor	79.70%	83.30%	NA	NA	79.85%	81.08%	79.78%	81.41%	77.12%	79.49%
Rating of Specialist	71.60%	73.50%	NA	NA	77.59%	71.72%	74.60%	74.27%	77.66%	80.31%
Rating of Health Plan	72.80%	77.10%	NA	NA	69.80%	68.13%	71.30%	71.68%	73.49%	77.27%

Table: Child CAHPS Measures Comparison Between MY 2010 and MY 2011

Child CAHPS Measure	MCO A		MCO B	MCO C		DC Average			National CAHPS Adult Medicaid AVG	National CAHPS Adult 75th Percentile
	MY 2010 %	MY 2011 %	MY 2010 %	MY 2011 %	MY 2010 %	MY 2011 %	MY 2010 %	MY 2011 %	MY 2011	MY 2011
Getting Needed Care	60.10%	71.90%	76.00%	74.00%	NA*	66.98%	68.05%	72.22%	79.31%	84.09%
Getting Care Quickly	81.00%	81.20%	87.00%	88.00%	74.94%	76.43%	80.98%	81.51%	87.32%	90.31%
How Well Doctors Communicate	92.40%	90.20%	92.00%	93.00%	87.54%	91.10%	90.64%	90.77%	91.81%	93.45%
Customer Service	78.20%	81.00%	87.00%	85.00%	72.74%	73.80%	79.31%	79.91%	83.02%	84.71%
Shared Decision Making	62.70%	67.10%	94.00%	94.00%	66.07%	66.27%	74.26%	77.49%	68.45%	70.70%
Health Promotion and Education	59.70%	68.00%	72.00%	74.00%	64.67%	64.50%	65.46%	68.63%	63.90%	67.77%
Coordination of Care	72.50%	70.60%	84.00%	84.00%	72.28%	74.60%	76.26%	77.10%	79.71%	82.54%
Rating of Health Care	76.00%	83.20%	83.00%	84.00%	76.19%	83.13%	78.40%	81.90%	83.04%	85.10%
Rating of Personal Doctor	85.00%	89.30%	87.00%	91.00%	83.97%	89.35%	85.32%	88.12%	86.46%	88.58%
Rating of Specialist	69.00%	77.30%	82.00%	80.00%	NA*	NA*	75.50%	79.77%	82.35%	86.09%
Rating of Health Plan	70.90%	79.90%	82.00%	85.00%	79.27%	81.76%	77.39%	81.59%	83.74%	86.61%

\*NA indicates fewer than 100 responses were available