

analysis to advance the health of vulnerable populations

# Evaluation of the HealthChoice Program CY 2010 to CY 2014

April 28, 2016



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## Evaluation of the HealthChoice Program CY 2010 to CY 2014

## **Executive Summary**

HealthChoice—Maryland's statewide mandatory Medicaid managed care program—was implemented in 1997 under authority of Section 1115 of the Social Security Act. As of the end of calendar year (CY) 2014, nearly 81 percent of the state's Medicaid population was enrolled in the HealthChoice program. Participants in the HealthChoice program include children enrolled in the Maryland Children's Health Program (MCHP), Maryland's Children's Health Insurance Program (CHIP). HealthChoice participants choose one of the participating managed care organizations (MCOs) and a primary care provider (PCP) from their MCO's network to oversee their medical care. HealthChoice enrollees receive the same comprehensive benefits as those available to Maryland Medicaid enrollees through the fee-for-service system.

The addition of new MCOs as well as implementation of the Affordable Care Act (ACA) impacted the overall performance of the program in some areas. Between CY 2010 and CY 2013, a total of seven MCOs participated in the program. In early CY 2013, one MCO, Coventry (also known as Diamond Plan), withdrew while a new MCO, Riverside Health of Maryland joined the program. In CY 2014, Kaiser Permanente of the Mid-Atlantic States joined the HealthChoice program, bringing the total to eight participating MCOs. Due to limited time to get new enrollees into care and challenges with initial data submissions to the Maryland Department of Health and Mental Hygiene's (DHMH) Medicaid Management Information System (MMIS2), the entrance of the new MCOs negatively impacted overall program performance on some HEDIS measures and may make the program's performance appear artificially low. The expansion of benefits under the ACA to adults under age 65 years with incomes up to 138 percent of the federal poverty level (FPL) also impacted program performance in CY 2014. The ACA expansion participants, many who were gaining Medicaid coverage for the first time, may have had limited health literacy resulting in reduced access to care until participants became more familiar with accessing care through Medicaid.

Since the inception of HealthChoice, DHMH has conducted five comprehensive evaluations of the program as part of the 1115 waiver renewals. Between waiver renewals, DHMH completes an annual evaluation for HealthChoice stakeholders. This report is the 2014 annual evaluation of the HealthChoice program. Key findings from this evaluation are presented below.

## **Coverage and Access**

Two of the goals of the HealthChoice program are to expand coverage to additional residents with low-income through resources generated from managed care efficiencies and to improve access to health care services for the Medicaid population. The following key findings from the evaluation are related to these goals:



- Beginning in January 2014, under the ACA, Maryland expanded Medicaid eligibility to adults under age 65 years with incomes up to 138 percent of the FPL. In January 2014, 139,427 participants had gained coverage through this expansion. This figure includes more than 90,000 participants in the former Primary Adult Care (PAC) program who transitioned into the full-benefit Medicaid program. By December 2014, 240,510 participants were enrolled in Medicaid through an expansion coverage group.
- Overall HealthChoice enrollment increased by 48 percent, from 715,086 participants in CY 2010 to 1,060,192 participants in CY 2014. These totals reflect individuals who were enrolled as of December 31 of each respective year, thus providing a snapshot of typical program enrollment on a given day.
- With these expansion activities and increased enrollment, it is important to maintain access to care and ensure program capacity to provide services to a growing population. Looking at service utilization as a measure of access, the ambulatory care visit rate increased between CY 2011 and CY 2013. However, across the complete evaluation period, the ambulatory care visit rate decreased slightly, from 77.6 percent in CY 2010 to 77.2 percent in CY 2014. HealthChoice participants in the rural regions of the state had equal access to ambulatory care as participants in urban and suburban regions.
- Approximately three out of every ten HealthChoice participants had an MCO outpatient emergency department (ED) visit during the evaluation period, suggesting that there is still room for improvement in access to primary care.
- The percentage of HealthChoice participants with at least one MCO inpatient admission decreased by 5.4 percentage points during the evaluation period, indicating that the program has taken strides in reducing hospital admissions.
- Consumer Assessment of Healthcare Providers and Systems (CAHPS) survey results indicate that most participants report that they usually or always receive needed care and receive care quickly, and rates generally align with national benchmarks (WBA Research, 2012, 2015).

#### **Medical Home**

Another goal of the HealthChoice program is to provide patient-focused, comprehensive, and coordinated care by providing each member with a medical home. One method of assessing the extent to which HealthChoice provides participants with a medical home is to measure the appropriateness of care coordination; i.e., whether participants can identify with and effectively navigate a medical home. With a greater understanding of the resources available to them, HealthChoice participants should be able to seek care for non-emergent conditions in an ambulatory care setting before resorting to using the ED or letting an ailment exacerbate to the extent that it could warrant an inpatient admission. The following key findings from the evaluation are related to this goal:



- The rate of potentially avoidable ED visits increased by 0.4 percentage points between CY 2010 and CY 2014.
- The percentage of participants with at least one MCO inpatient admission with a Prevention Quality Indicator (PQI) designation increased by less than 1 percentage point, from 9.3 percent in CY 2010 to 10.0 percent in CY 2014.

Under Maryland's new hospital All-Payer Model Agreement with the Centers for Medicare & Medicaid Services (CMS), the state is monitoring a number of hospital quality measures, including PQI admissions across Medicaid, Medicare, and commercial payers. The Model Agreement also requires global budget limits for hospitals, which reduces hospitals' incentives to increase admissions. DHMH will use these tools to continue to monitor the rate of PQI admissions and will research policies to reduce their frequency.

## **Quality of Care**

Another goal of the HealthChoice program is to improve the quality of health care services. DHMH employs an extensive system of quality measurement and improvement that uses nationally recognized performance standards. The following key findings from the evaluation are related to this goal:

- HealthChoice rates for well-child and well-care visits and rates for immunizations were consistently higher than Medicaid national averages. Blood lead screening rates for children aged 12 to 23 months and 24 to 35 months also improved or remained stable, respectively.
- Breast cancer screening rates improved during the evaluation period by nearly 20 percentage points, contributing to better preventive care for adults.
- Regarding the quality of care for chronic conditions, the percentage of enrollees who received appropriate asthma medications decreased between CY 2010 and CY 2014. For enrollees with diabetes, rates of hemoglobin A1c (HbA1c) screenings and low-density lipoprotein cholesterol (LDL-C) screenings increased during the evaluation period.
- DHMH has incorporated measures for human papillomavirus (HPV) vaccinations and colorectal cancer screenings into the evaluation. While these measures were not a significant focus for the HealthChoice program during the evaluation period, initiatives underway during the present day will continue to impact performance in these areas moving forward.

The HealthChoice program had a large influx of adults who had never been enrolled in Medicaid. These new participants took longer to engage in appropriate primary care treatment. This affected the scores of HEDIS measures that are based on using services. In addition, new MCOs came on the market in CY 2013 and CY 2014. It took time for their encounter data to become complete. Although the new MCOs served few members, the overall HEDIS scores



were dramatically affected because the methodology uses a simple average to calculate overall HealthChoice HEDIS scores instead of a weighted average. The six longer-participating MCOs continued to have constant quality results.

## **Special Topics**

As part of the goal of improving the quality of health care services, DHMH monitors utilization among vulnerable populations. The following key findings from the evaluation are related to this goal:

- The dental service utilization rate among children aged 4 to 20 years increased by 3.6 percentage points between CY 2010 and CY 2014. Children in foster care had a dental visit rate that was 5.2 percentage points higher than other children in HealthChoice.
- Between CY 2010 and CY 2014, the overall rate of ambulatory care visits for children in foster care increased by 1.5 percentage points. Nonetheless, children in foster care in CY 2014 had a lower rate of ambulatory care service utilization and a higher rate of MCO outpatient ED visits compared to other children in HealthChoice.
- Measures of access to prenatal care services declined during the evaluation period. For example, timeliness of prenatal care decreased by over 4 percentage points, from 86.9 percent in CY 2010 to 82.8 percent in CY 2014. These declines may be attributed to the inclusion of new HealthChoice MCOs into the average rate calculations.
- The rates of ambulatory care visits, CD4 testing, and viral load testing improved for participants with HIV/AIDS during the evaluation period. However, ED utilization also increased among this population.
- Regarding racial/ethnic disparities in access to care, Black children have lower rates of ambulatory care visits than other children. Among the entire HealthChoice population, Black participants also have the highest ED utilization rates.

## ACA Medicaid Expansion Population

The HealthChoice evaluation includes a section that addresses demographic characteristics and service utilization measures among the ACA Medicaid expansion population, which consists of three different coverage groups: former PAC participants, childless adults<sup>1</sup>, and parents and caretaker relatives. Related to the ACA Medicaid expansion population, the evaluation found the following:

• The majority of ACA Medicaid expansion participants were childless adults (59.5 percent); 34.2 percent were former PAC participants, and 6.3 percent were parents and caretaker relatives.

<sup>&</sup>lt;sup>1</sup> These individuals were not enrolled in PAC as of December 2013.

- The majority of ACA Medicaid expansion participants were male (53.5 percent) and resided in Baltimore City and its surrounding suburbs (50.3 percent)
- Former PAC participants had the highest rate of service utilization across all service categories. Parents and caretaker relatives had the lowest rate of inpatient admissions, and childless adults had the lowest rate of ambulatory care and ED visits.



## Evaluation of the HealthChoice Program CY 2010 to CY 2014

#### Introduction

HealthChoice—Maryland's statewide mandatory Medicaid managed care program—was implemented in 1997 under authority of Section 1115 of the Social Security Act. In January 2002, the Maryland Department of Health and Mental Hygiene (DHMH) completed the first comprehensive evaluation of HealthChoice as part of the first 1115 waiver renewal. The 2002 evaluation examined HealthChoice performance by comparing service use during the program's initial years to utilization during the final year without managed care (fiscal year [FY] 1997). The Centers for Medicare & Medicaid Services (CMS) approved subsequent waiver renewals in 2005, 2007, 2010, and 2013.

The 2013 annual evaluation focused on the HealthChoice goals of expanding coverage to additional Maryland residents with low income, improving access to care, and improving service quality. Between waiver renewals, DHMH continually monitors HealthChoice performance on a variety of measures and completes an annual evaluation for HealthChoice stakeholders.

This report is the annual evaluation of the HealthChoice program to accompany Maryland's 2016 waiver renewal application. The report begins with a brief overview of the HealthChoice program and recent program updates, and then addresses the following topics:

- Coverage and access to care
- The extent to which HealthChoice provides participants with a medical home
- The quality of care delivered to participants
- Special topics, including dental services, mental health care, substance use disorder (SUD) services, services provided to children in foster care, reproductive health services, services for individuals with HIV/AIDS, the Rare and Expensive Case Management (REM) program, and racial and ethnic disparities in utilization
- Demographics and service utilization of the Affordable Care Act (ACA) Medicaid expansion population

This report was a collaborative effort between DHMH and The Hilltop Institute at the University of Maryland, Baltimore County (UMBC).

## Overview of the HealthChoice Program

As of the end of calendar year (CY) 2014, nearly 81 percent of the State's Medicaid and Maryland Children's Health Program (MCHP) populations were enrolled in the HealthChoice program. HealthChoice participants can choose one of eight managed care organizations (MCOs)



and a primary care provider (PCP) from their MCO's network to oversee their medical care. Participants who do not select an MCO or a PCP are automatically assigned to one. The groups of Medicaid-eligible individuals who enroll in HealthChoice MCOs include:

- Families with low income that have children
- Families that receive Temporary Assistance for Needy Families (TANF)
- Children younger than 19 years who are eligible for MCHP
- Children in foster care and, starting in CY 2014, individuals up to age 26 who were previously enrolled in foster care
- Adults through age 64 with incomes up to 138 percent of the federal poverty level (FPL), starting in CY 2014
- Women with low income who are pregnant or less than 60 days postpartum
- Individuals receiving Supplemental Security Income (SSI) who are younger than 65 years and not eligible for Medicare

Not all Maryland Medicaid beneficiaries are enrolled in HealthChoice MCOs. Groups that are not eligible for MCO enrollment include:

- Medicare beneficiaries
- Individuals aged 65 years and older
- Individuals in a "spend-down" eligibility group who are only eligible for Medicaid for a limited period of time
- Individuals who require more than 30 days of long-term care services are disenrolled from HealthChoice.
- Individuals who are continuously enrolled in an institution for mental illness for more than 30 days
- Individuals who reside in an intermediate care facility for intellectual disabilities
- Individuals enrolled in the Model Waiver or the Employed Individuals with Disabilities program
- Some refugees and certain categories of undocumented immigrants

Additional populations covered under the HealthChoice waiver include individuals in the Family Planning and REM programs. HealthChoice-eligible individuals with certain diagnoses may choose to receive care on a fee-for-service (FFS) basis through the REM program. The Family Planning program is a limited benefit program under the waiver. The REM and Family Planning programs are further discussed in Section IV of this report.



HealthChoice participants receive the same comprehensive benefits as those available to Maryland Medicaid participants through the FFS system. Services in the MCO benefit package include, but are not limited to:

- Inpatient and outpatient hospital care
- Physician care
- Federally qualified health center (FQHC) or other clinic services
- Laboratory and x-ray services
- Early and Periodic Screening, Diagnosis, and Treatment (EPSDT) services for children
- Prescription drugs, with the exception of mental health and HIV/AIDS drugs
- Substance use disorder treatment services<sup>2</sup>
- Durable medical equipment and disposable medical supplies
- Home health care
- Vision services
- Dialysis
- The first 30 days of long-term care services

Some services are carved out of the MCO benefit package and instead are covered by the Medicaid FFS system. These include:

- Specialty mental health care, which is administered by the DHMH Behavioral Health Administration
- Dental care for children, pregnant women, and adults in the REM program
- Health-related services and targeted case management services provided to children when the services are specified in the child's Individualized Education Plan or Individualized Family Service Plan
- Therapy services (occupational, physical, speech, and audiology) for children
- Personal assistance services offered under the Community First Choice program
- Viral load testing services, genotypic, phenotypic, or other HIV/AIDS drug resistance testing for the treatment of HIV/AIDS
- HIV/AIDS drugs and specialty mental health drugs
- Services covered under 1915(c) home and community-based services waivers

<sup>&</sup>lt;sup>2</sup> Substance use disorderservices were carved out of the MCO benefit package on January 1, 2015 (outside of this evaluation period). Mental health services have never been included in the MCO benefit package.



## **Recent Program Updates**

The following significant changes were made to the HealthChoice program during the evaluation period:

- Beginning in January 2012, Maryland expanded eligibility for the Family Planning program to include all women with household income up to 200 percent of the FPL. The program previously only covered women losing pregnancy-related Medicaid eligibility 60 days postpartum.
- From the time the HealthChoice program began in 1997, mental health services were carved out of the benefit package, while services for individuals with substance use disorders were carved in. In 2010, Maryland began a Behavioral Health Integration stakeholder process to streamline the existing disparate systems of care for individuals with co-occurring serious mental illness and substance use issues. Phase 1 of this process involved collaboration among DHMH, a consultant, and stakeholders to assess the strengths and weaknesses of Maryland's system. In early 2012, phase 2 of the process involved development of a broad financing model to better integrate care. In 2013, DHMH announced the decision to establish a carve-out for substance use disorder and mental health services. DHMH implemented this behavioral health carve-out on January 1, 2015.
- In 2011, Maryland began a three-year pilot program to test the use of a patient-centered medical home (PCMH), called the Maryland Multi-Payer Patient-Centered Medical Home Program (MMPP). The MMPP provides Maryland patients with many services, such as integrated care plans, chronic disease management, medication reconciliation at every visit, and same-day appointments for urgent matters. Across the state, 52 primary and multispecialty practices and FQHCs participate in the MMPP. These practices are paid through HealthChoice MCOs and private insurance carriers.
- CMS awarded Maryland performance bonuses for its work to identify and enroll eligible children in Medicaid and MCHP. These bonuses were given under the Children's Health Insurance Program Reauthorization Act of 2009 (CHIPRA), which provided performance bonuses to states that met two sets of criteria: 1) States must implement at least five of eight Medicaid and CHIP program features known to improve health coverage programs for children, and 2) States must increase Medicaid enrollment among children above a baseline level for the fiscal year. The performance bonuses were distributed annually in FY 2009 through FY 2013. CMS awarded Maryland \$11 million for FY 2010 performance, \$28 million for FY 2011 performance, \$37 million for FY 2012 performance, and \$43 million for FY 2013 performance (InsureKidsNow.gov, n.d).
- In FY 2013, the Maryland General Assembly set aside funds for the development of a chronic health home demonstration. Section 2703 of the ACA allows states to amend their Medicaid state plans to offer health homes that provide comprehensive systems of care coordination for participants with two or more defined chronic conditions.



Maryland's chronic health home program serves individuals diagnosed with a serious and persistent mental illness, children diagnosed with a serious emotional disturbance, and individuals diagnosed with an opioid SUD who are at risk for another chronic condition based on tobacco, alcohol, or other non-opioid substance use. As of February 2016, DHMH approved 81 Health Home site applications. The Health Home sites include 63 psychiatric rehabilitation programs, 10 mobile treatment providers, and 8 opioid treatment programs.

- Under the ACA, Maryland expanded coverage through the Medicaid program to new populations:
  - Maryland expanded its Medicaid program to offer coverage to individuals with incomes up to 138 percent of the FPL on January 1, 2014. Individuals enrolled in the Primary Adult Care (PAC) program were automatically transferred into this expansion coverage. In CY 2014, over 271,000 adults gained Medicaid coverage through this expansion. This included more than 90,000 former PAC participants.
  - o Former foster children through the age of 26 years
- There were several MCO participation changes. One MCO, Coventry (also known as Diamond Plan), withdrew from the program in February 2013. Two new MCOs, Riverside Health of Maryland and Kaiser Permanente of the Mid-Atlantic States, joined the program in February 2013 and June 2014, respectively.



## **Section I. Coverage and Access**

Two of the goals of the HealthChoice program are to expand coverage to additional residents with low income through resources generated from managed care efficiencies and to improve access to health care services for the Medicaid/MCHP population. This section of the report addresses Maryland's progress toward achieving these coverage and access goals. Coverage is examined through several enrollment measures. Access to care is measured by provider network adequacy, ambulatory care service utilization, emergency department (ED) service utilization, inpatient care utilization, and enrollee satisfaction survey results.

## Are More Marylanders Covered?

#### **Major Expansion Initiatives**

Maryland has recently engaged in several efforts to increase Medicaid enrollment. Legislation and grant awards have increased DHMH's capacity to enroll uninsured children and adults in programs for which they might be eligible. The most successful of these expansion efforts through 2013 was the increase in income eligibility for families in Medicaid. Effective July 1, 2008, Maryland expanded the eligibility thresholds for parents and caretaker relatives of children enrolled in Medicaid or MCHP from approximately 40 percent of the FPL to 116 percent of the FPL.

Beginning in January 2014, under the ACA, states had the option to expand their Medicaid eligibility to all adults under 65 years of age with income up to 138 percent of the FPL, as well as to individuals up to age 26 years who were formerly enrolled in foster care. Maryland elected to expand its Medicaid eligibility. As a result, eligibility for parents was again expanded from 116 percent of the FPL to 138 percent. Enrollees in the PAC program also transitioned into a categorically-eligible Medicaid population on January 1, 2014. Figure 1 presents the monthly enrollment in the ACA Medicaid expansion population. Enrollment increased from 139,427 participants in January 2014 to 240,510 participants in December 2014.



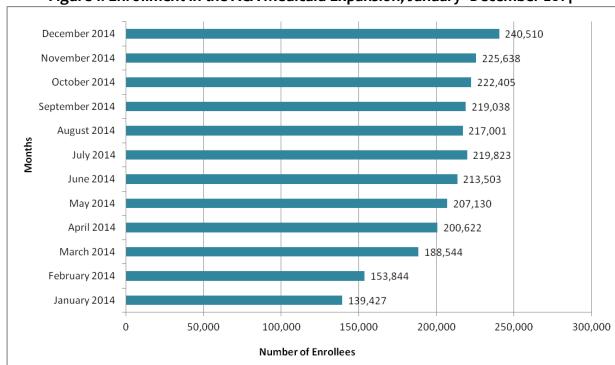


Figure 1. Enrollment in the ACA Medicaid Expansion, January-December 2014

Source: Maryland Department of Health and Mental Hygiene (2016, January). Decision Support System. Retrieved on February 26, 2016.

#### **HealthChoice Enrollment**

HealthChoice enrollment can be measured using several different methods. One method of measurement is to count the number of individuals with any period of enrollment during a given calendar year, including individuals who may not have been enrolled for the entire year. Another method is to count individuals who were enrolled at a certain point in time (e.g., enrollment as of December 31). Although this yields a smaller number, it provides snapshot of typical program enrollment on a given day. Unless specified otherwise, the enrollment data in this section of the report uses the point-in-time methodology to reflect enrollment as of December 31 of the measurement year.<sup>3</sup>

The overall HealthChoice population grew by 48 percent between CY 2010 and CY 2014 (Figure 2). The largest enrollment increase was a result of the ACA Medicaid expansion. Between CY 2013 and CY 2014, HealthChoice grew by 27.7 percent (229,904 participants). Figure 2 displays HealthChoice enrollment by coverage group between CY 2010 and CY 2014. As of December 31 of each year, most HealthChoice enrollees were eligible in the families, children, and pregnant women (F&C) category. Overall, F&C enrollment grew by 58.3 percent

<sup>&</sup>lt;sup>3</sup> Enrollment data are presented for individuals aged 0 through 64 years. Age is calculated as of December 31 of the measurement year.



between CY 2010 and CY 2014. MCHP enrollment increased by 22.1 percent during the evaluation period. The coverage group for individuals with disabilities, which was the smallest eligibility category in each year under review, grew by 7.3 percent between CY 2010 and CY 2014.

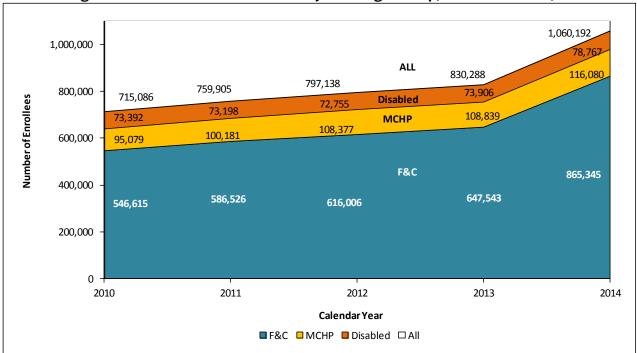


Figure 2. HealthChoice Enrollment by Coverage Group, CY 2010-CY 2014

#### **Enrollment Growth**

According to the Kaiser Commission on Medicaid and the Uninsured (2015), by January 2015, national enrollment in Medicaid reached 70 million; between the summer of 2013 and January 2015, Maryland experienced the ninth highest growth rate in Medicaid enrollment out of the 47 states and the District of Columbia reporting data. Most new Maryland Medicaid participants are enrolled in managed care.

Table 1 shows the percentage of Maryland's population enrolled in HealthChoice between CY 2010 and CY 2014. These data are presented for individuals enrolled in HealthChoice as of December 31 and for individuals with any period of HealthChoice enrollment. The percentage with any period of HealthChoice enrollment increased from 14.4 percent in CY 2010 to 20.9 percent in CY 2014, with the most dramatic increase from CY 2013 to CY 2014 due to the ACA Medicaid expansion. The uninsured rate in Maryland fell from 11 percent in CY 2013 to 6 percent in CY 2014 (Kaiser Family Foundation, 2016).



Table 1. HealthChoice Enrollment as a Percentage of the Maryland Population, CY 2010–CY 2014

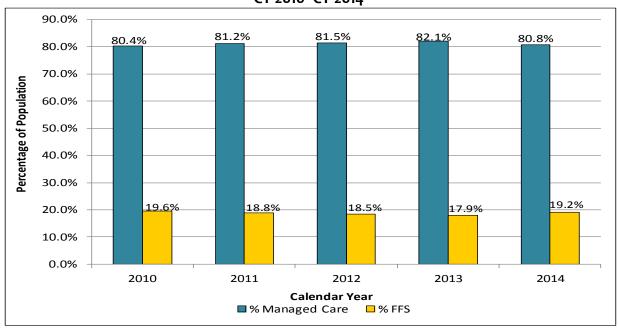
	CY 2010	CY 2011	CY 2012	CY 2013	CY 2014			
Maryland Population*	5,787,193	5,840,241	5,884,868	5,928,814	5,975,346			
Individuals Enrolled in H	luring the Ye	ar						
HealthChoice Population	832,498	893,084	930,647	961,597	1,251,023			
% of Population in HealthChoice	14.4%	15.3%	15.8%	16.2%	20.9%			
Individuals En	Individuals Enrolled in HealthChoice as of December 31							
HealthChoice Population	715,086	759,905	797,138	830,288	1,060,192			
% of Population in HealthChoice	12.4%	13.0%	13.5%	14.0%	17.7%			

<sup>\*</sup>Maryland Population Data Source: United States Census Bureau, 2015, http://www.census.gov/popest/data/state/totals/2015/index.html

## Are More Maryland Medicaid/MCHP Participants Covered under Managed Care?

One of the original goals of the HealthChoice program was to enroll more Medicaid and MCHP participants into managed care. Figure 3 presents the percentage of Maryland Medicaid/MCHP participants who were enrolled in managed care (including both HealthChoice and PAC MCOs until 2014 when the PAC program ended) compared to FFS enrollment. Between CY 2010 and CY 2014, managed care enrollment remained around 80 percent.

Figure 3. Percentage of Medicaid/MCHP Participants in Managed Care versus FFS, CY 2010–CY 2014





#### **Does the Covered Population Access Care?**

With the continued increase in HealthChoice enrollment, it is important to maintain access to care. This section of the report examines HealthChoice service use related to ambulatory care, ED visits, and inpatient admissions. In addition, it analyzes network adequacy to evaluate access to care. The Consumer Assessment of Healthcare Providers and Systems (CAHPS) program, which is a part of the U.S. Agency for Healthcare Research and Quality (AHRQ), offers a CAHPS Health Plan Survey for Medicaid participants. This section also discusses results from that survey.

#### **Ambulatory Care Visits**

DHMH monitors ambulatory care utilization as a measure of access to care. An ambulatory care visit is defined as contact with a doctor or nurse practitioner in a clinic, physician's office, or hospital outpatient department by an individual enrolled in HealthChoice at any time during the measurement year. For this measure, we have also included ambulatory care visits related to mental health disorders and substance use disorders. HealthChoice participants should be able to seek care in an ambulatory care setting before using the ED for a non-emergent condition or allowing a condition to exacerbate to the extent that it requires an inpatient admission. In this section of the report, ambulatory care visits are measured using MCO encounter and FFS claims data.

Figure 4 presents the percentage of HealthChoice participants who received an ambulatory care visit during the calendar year by age group. Between CY 2010 and CY 2013, the ambulatory care visit rate increased. However, between CY 2013 and CY 2014, the rate decreased by 2.1 percentage points, from 79.3 percent to 77.2 percent. Certain age groups experienced an increase in ambulatory care visits during the evaluation period. The largest increase was among children aged 10 to 14 years.

<sup>&</sup>lt;sup>6</sup> See page 294 of HEDIS 2015 Technical Specifications for Health Plans for a list of substance use diagnosis and procedure codes.



<sup>&</sup>lt;sup>4</sup> This definition excludes ED visits, hospital inpatient services, home health, x-ray, and laboratory services.

<sup>&</sup>lt;sup>5</sup> See page 294 of HEDIS 2015 Technical Specifications for Health Plans for a list of mental health diagnosis and procedure codes.

Figure 4. Percentage of the HealthChoice Population Receiving an Ambulatory Care Visit by Age Group, CY 2010–CY 2014

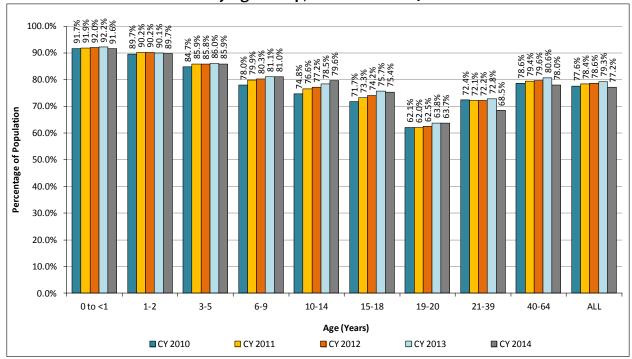


Figure 5 presents the percentage of the HealthChoice population receiving an ambulatory care visit by region between CY 2010 and CY 2014. Visit rates among the regions remained stable or decreased during the evaluation period. HealthChoice participants on the Eastern Shore and in Western Maryland continued to have the highest rates of ambulatory care visits across the state. These data demonstrate that HealthChoice participants in rural parts of the state had equal access to ambulatory care as participants in urban and suburban areas.

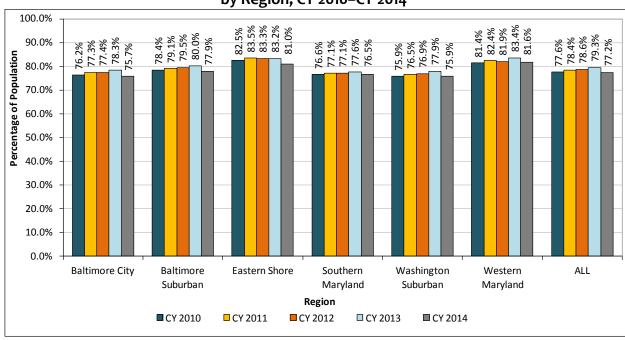


Figure 5. Percentage of the HealthChoice Population Receiving an Ambulatory Care Visit by Region, CY 2010–CY 2014

#### **ED Utilization**

The primary role of the ED is to treat seriously ill and injured patients. Ideally, ED visits should not occur for conditions that can be treated in an ambulatory care setting. HealthChoice was expected to lower ED use based on the premise that a managed care system is capable of promoting ambulatory and preventive care, thereby reducing the need for emergency services. To assess overall ED utilization, DHMH measures the percentage of individuals with any period of enrollment who visited an ED at least once during the calendar year. This measure excludes ED visits that resulted in an inpatient hospital admission.



Figure 6 presents ED use by coverage group. Overall, the ED visit rate among HealthChoice participants in CY 2014 was nearly 30 percent, similar to the CY 2010 rate. From CY 2013 to CY 2014, the ED visit rate decreased by 1.5 percentage points. Among the coverage groups, participants with disabilities were more likely to utilize ED services than others throughout the evaluation period.

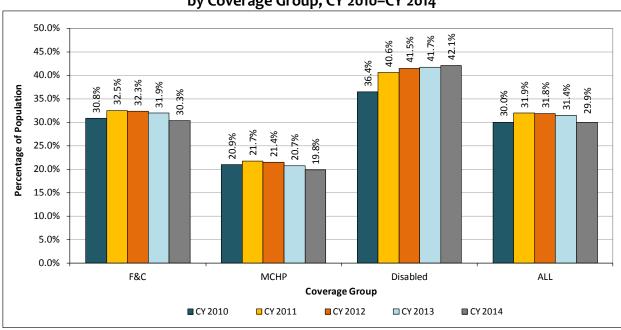


Figure 6. Percentage of the HealthChoice Population with at Least One ED Visit by Coverage Group, CY 2010–CY 2014

Figure 7 shows ED utilization by age group from CY 2010 through CY 2014. Children aged 1 and 2 years had the highest ED use across the evaluation period (42.2 percent), followed by adults aged 19 to 39 years (35.0 percent). Between CY 2013 and CY 2014, the ED visit rate for adults aged 19 to 39 years and 40 to 64 years declined by 3.4 and 4.5 percentage points, respectively.

50.0% 43.4% 44.1% 43.2% 45.0% 38.7% 38.4% 38.4% 35.8% 35.8% 35.8% 40.0% 35.0% 31.3% 31.9% Percentage of Population 35.0% 32. 28.6% 27.7% 27.7% 27.3% 30.0% 24.2% 24.1% 23.3% 25.0% 20.0% 15.0% 10.0% 5.0% 0.0% 0 to <1 1 - 2 3 - 9 10 - 18 19 -39 40-64 Age (Years) CY 2010 CY 2011 CY 2012 CY 2013 **■** CY 2014

Figure 7. Percentage of the HealthChoice Population with at least One ED Visit by Age Group, CY 2010–CY 2014

#### **Inpatient Admissions**

To assess inpatient utilization, DHMH measures the percentage of participants aged 18 to 64 years with any period of HealthChoice enrollment who had an MCO inpatient admission during the calendar year. Inpatient admissions include all institutional services reported by Maryland hospitals as inpatient. This measure excludes visits covered under the FFS system. Table 2 presents the percentage of HealthChoice participants with at least one MCO inpatient hospital admission. Overall, the rate of adult HealthChoice participants with at least one MCO inpatient admission decreased by 5.4 percentage points, from 14.5 percent in CY 2010 to 9.1 percent in CY 2014.

Table 2. Percentage of HealthChoice Participants Aged 18–64 Years (Any Period of Enrollment) with at least One MCO Inpatient Admissions, CY 2010–CY 2014<sup>7</sup>

Year	Number of Participants	Number with at Least One MCO Inpatient Admission	Percentage of Total	
CY 2010	311,759	45,293	14.5%	
CY 2011	346,903	46,169	13.3%	
CY 2012	364,543	45,103	12.4%	
CY 2013	379,163	44,602	11.8%	
CY 2014	636,740	57,688	9.1%	

<sup>&</sup>lt;sup>7</sup> The methodology for calculating inpatient admissions was revised for this year's evaluation. Revisions include counting only MCO inpatient stays and updating the methodology for calculating stays across years.



## Are Provider Networks Adequate to Ensure Access?

Another method of measuring enrollee access to care is to examine provider network adequacy. This section of the report examines PCP and specialty provider networks.

#### **PCP Network Adequacy**

HealthChoice requires every participant to have a PCP, and each MCO must have enough PCPs to serve its enrollee population. HealthChoice regulations require a ratio of 1 PCP to every 200 participants within each of the 40 local access areas (LAAs) in the state. Because some PCPs traditionally serve a high volume of HealthChoice participants at some of their sites (e.g., FQHC physicians), the regulations permit DHMH to approve a ratio of 2,000 adult participants per high-volume provider and 1,500 participants aged 0 to 21 years per high-volume provider. DHMH assesses network adequacy periodically throughout the year to identify potential network inadequacies and works with the MCOs to resolve capacity issues. Should any such issues arise, DHMH will discontinue new enrollment for that MCO in the affected region until it increases provider contracts to an adequate level.

Table 3 shows PCP network adequacy as of December 2014. The analysis counts the number of PCP offices in each county in Maryland. If a provider has more than one office location in any county, only one office was counted. If a provider has multiple office locations among different counties, one office is counted in each county. PCPs in Washington, D.C. are not included in the analysis. Two capacity estimates are presented: 200 participants per PCP office and 500 participants per PCP office. Although regulatory requirements apply to a single MCO, this analysis aggregates data from all eight HealthChoice MCOs. The analysis does not allow a single provider office that contracts with multiple MCOs to be counted multiple times; thus, it applies a higher standard than that in regulation.

Based on a standard enrollee-to-PCP ratio of 500:1, provider networks in the counties are more than adequate. Seven counties do not meet the stricter 200:1 ratio: Allegany, Caroline, Cecil, Dorchester, Garrett, Prince George's, and Wicomico. However, HealthChoice enrollees residing in Prince George's County may receive care from PCPs located in Washington, D.C.

Table 3. PCP Capacity by County, for Any Period of Enrollment, CY 2014

	Total PCP Offices		Enrollment	Excess Capacity		
County	CY 2014	Multiplied Multiplied by 200 by 500		CY 2014	Difference 200:1 Ratio	Difference 500:1 Ratio
Allegany	90	18,000	45,000	18,896	-896	26,104
Anne Arundel	936	187,200	468,000	83,344	103,856	384,656
Baltimore City	2,598	519,600	1,299,000	247,798	271,802	1,051,202
Baltimore County	1,657	331,400	828,500	171,187	160,213	657,313
Calvert	171	34,200	85,500	13,975	20,225	71,525
Caroline	31	6,200	15,500	10,376	-4,176	5,124
Carroll	214	42,800	107,000	20,253	22,547	86,747
Cecil	123	24,600	61,500	24,882	-282	36,618
Charles	211	42,200	105,500	28,358	13,842	77,142
Dorchester	41	8,200	20,500	11,297	-3,097	9,203
Frederick	220	44,000	110,000	35,678	8,322	74,322
Garrett	31	6,200	15,500	7,451	-1,251	8,049
Harford	337	67,400	168,500	38,684	28,716	129,816
Howard	379	75,800	189,500	37,760	38,040	151,740
Kent	26	5,200	13,000	4,503	697	8,497
Montgomery	1,016	203,200	508,000	158,103	45,097	349,897
Prince George's	911	182,200	455,500	211,779	-29,579	243,721
Queen Anne's	80	16,000	40,000	8,344	7,656	31,656
Somerset	47	9,400	23,500	7,486	1,914	16,014
St. Mary's	158	31,600	79,000	20,819	10,781	58,181
Talbot	109	21,800	54,500	7,270	14,530	47,230
Washington	198	39,600	99,000	38,170	1,430	60,830
Wicomico	136	27,200	68,000	30,609	-3,409	37,391
Worcester	78	15,600	39,000	11,930	3,670	27,070
Total (in MD)	9,798	1,959,600	4,899,000	1,248,952	710,648	3,650,048
Other	146					
Washington, D.C.	400					



#### **Specialty Care Provider Network Adequacy**

In addition to ensuring PCP network adequacy, DHMH requires MCOs to provide all medically necessary specialty care. If an MCO does not have the appropriate in-network specialist needed to meet an enrollee's medical needs, then the MCO must arrange for care with an out-of-network specialist and compensate the provider. Regulations<sup>9</sup> for specialty care access require each MCO to have an in-network contract with at least one provider statewide in 14 major medical specialties. Additionally, for each of the 10 specialty care regions throughout the state in which an MCO serves, an MCO must include at least one in-network specialist in each of the eight core specialties: cardiology, otolaryngology (ENT), gastroenterology, neurology, ophthalmology, orthopedics, surgery, and urology.

DHMH regularly monitors HealthChoice MCOs' compliance with availability and access standards, including these specialty care access requirements. As of February 2014, the compliance rate among the seven MCOs<sup>11</sup> in the HealthChoice program was 96 percent for CY 2013. Six of the seven MCOs met the minimum compliance rate for availability and access standards, while one MCO was required to submit a corrective action plan (Delmarva Foundation, 2015).

#### **CAHPS Survey Results**

The CAHPS survey is adopted by DHMH to measure enrollees' satisfaction with their medical care (WBA Research, 2015; WB&A Market Research, 2012). Two CAHPS survey measures related to access to care include "getting needed care" and "getting care quickly".

"Getting needed care" measures:

- How often it was easy for participants to get care from specialists in the last six months
- How often it was easy for participants to get care, tests, or treatment through their health plans

"Getting care quickly" measures:

 How often the participants received care as soon as possible, when they needed care right away

<sup>10</sup> The 14 major medical specialties are: allergy, cardiology, dermatology, endocrinology, otolaryngology (ENT), gastroenterology, infectious disease, nephrology, neurology, ophthalmology, orthopedics, pulmonology, surgery, and urology.

<sup>&</sup>lt;sup>11</sup> Kaiser Permanente of the Mid-Atlantic States was not included in the analysis because it was not an MCO in HealthChoice in CY 2013.



<sup>&</sup>lt;sup>9</sup> COMAR 10.09.66.05-1

 Not counting the times participants needed care right away, how often they received an appointment for health care at a doctor's office or clinic as soon as they thought they needed it

The possible survey responses for these two measures are "never," "sometimes," "usually," or "always." HealthChoice enrollees' responses are compared with benchmarks from Quality Compass, a national database developed by the National Committee for Quality Assurance (NCQA). The Quality Compass benchmarks provide national ratings from other Medicaid managed care plans across the country.

In CY 2014, 80 percent of adult HealthChoice members responded that they were "usually" or "always" successful in getting needed care, and 78 percent of adult members responded that they were "usually" or "always" successful in getting care quickly (Table 4). Though the percentage of HealthChoice members who reported getting needed care was one percentage point less than the CY 2014 NCQA Quality Compass benchmark, the rate has increased by eight percentage points since CY 2010. The proportion of respondents reporting that they were able to get care quickly was three percentage points lower than the NCQA benchmark.

Table 4. Percentage of Adult HealthChoice Participants Responding "Usually" or "Always" to Getting Needed Care and Getting Care Quickly Compared with the NCQA Benchmark,

CY 2010-CY 2014

C1 2010-C1 2014									
	CY 2010	CY 2011	CY 2012	CY 2013	CY 2014				
Getting Needed Care - Percentage of participants who responded "Usually" or "Always"									
HealthChoice	72%	71%	79%	80%	80%				
NCQA Quality Compass Benchmark	76%	76%	81%	80%	81%				
Getting Care Quickly - Percentage of participants who responded "Usually" or "Always"									
HealthChoice	80%	79%	80%	79%	78%				
NCQA Quality Compass Benchmark	81%	80%	81%	81%	81%				

In CY 2014, 83 percent of parents and guardians of children enrolled in HealthChoice responded that they were "usually" or "always" successful in getting needed care for their children, and 88 percent responded "usually" or "always" to getting care quickly (Table 5). The CY 2014 rates for getting needed care and getting care quickly are both one percentage point lower than the NCQA benchmarks.



Table 5. Percentage of Parents and Guardians of Child HealthChoice Participants
Responding "Usually" or "Always" to Getting Needed Care and Getting Care Quickly
Compared with the NCQA Benchmark, CY 2010–CY 2014

7									
	CY 2010	CY 2011	CY 2012	CY 2013	CY 2014				
Getting Needed Care - Percentage of members who responded "Usually" or "Always"									
HealthChoice	77%	79%	82%	84%	83%				
NCQA Quality Compass Benchmark	79%	79%	84%	85%	84%				
Getting Care Quickly - Percentage of members who responded "Usually" or "Always"									
HealthChoice	88%	87%	91%	90%	88%				
NCQA Quality Compass Benchmark	87%	87%	89%	89%	89%				

Parents and guardians of children with chronic conditions in HealthChoice were also surveyed (Table 6). In CY 2014, 86 percent responded "usually" or "always" to getting needed care for their children, which was the same as the NCQA benchmark. Ninety-two percent reported "usually" or "always" to getting care quickly, one percentage point higher than the NCQA benchmark.

Table 6. Percentage of Parents and Guardians of Children with Chronic Conditions in HealthChoice Responding "Usually" or "Always" to Getting Needed Care and Getting Care Quickly Compared with the NCQA Benchmark, CY 2010–CY 2014

	CY 2010	CY 2011	CY 2012	CY 2013	CY 2014			
Getting Needed Care - Percentage of members who responded "Usually" or "Always"								
HealthChoice	78%	80%	84%	85%	86%			
NCQA Quality Compass Benchmark*	N/A	81%	86%	87%	86%			
Getting Care Quickly - Percentage of members who responded "Usually" or "Always"								
HealthChoice	91%	90%	93%	92%	92%			
NCQA Quality Compass Benchmark*	N/A	90%	92%	93%	91%			

<sup>\*</sup>NCQA Quality Compass Benchmarks were available for children with chronic conditions beginning in CY 2011.



## **Section I Summary**

Section I of this report described the HealthChoice program's progress in achieving its goals of expanding coverage and improving access to care. Under the ACA, Maryland expanded Medicaid eligibility to adults under the age of 65 years with incomes up to 138 percent of the FPL. By December 2014, 240,510 new participants were covered under Medicaid through the expansion program. The overall HealthChoice population grew by 48 percent between CY 2010 and CY 2014. By CY 2014, 17.7 percent of Maryland's population was enrolled in HealthChoice.

With expansion activities and increased enrollment, it is important to maintain access to care and ensure program capacity to serve a growing population. Regarding PCP networks in CY 2014, seven Maryland counties did not meet the stricter 200:1 enrollee-to-PCP ratio for network adequacy standards: two in Western Maryland, one in the Washington Suburban region, and four on the Eastern Shore.

Looking at service utilization as a measure of access, the percentage of participants receiving an ambulatory care visit increased between CY 2010 and CY 2013, but dropped to 77.2 percent in CY 2014. From CY 2013 to CY 2014, the ED visit rate dropped 1.5 percentage points to nearly 30 percent. The declines in ambulatory care and ED utilization rates between CY 2013 and CY 2014 may be attributable to new HealthChoice participants who enrolled through the ACA Medicaid expansion. These new participants have lower utilization rates. The percentage of HealthChoice participants with an MCO inpatient admission decreased by 5.4 percentage points during the evaluation period. CAHPS survey results indicate that most participants report that they usually or always receive needed care and receive care quickly, and rates generally align with national benchmarks.



#### Section II. Medical Home

One of the goals of the HealthChoice program is to ensure patient-focused, comprehensive, and coordinated care by providing each member with a medical home. HealthChoice participants choose an MCO and a PCP from their MCO's network to oversee their medical care and provide a medical home. This section of the report discusses the extent to which HealthChoice provides participants with a medical home by assessing appropriate service utilization.

## **Appropriate Service Utilization**

This section addresses whether participants could connect with their medical homes and understand how to navigate them. With a greater understanding of the resources available to them, participants should be able to seek care in an ambulatory care setting before resorting to seeking care in the ED or allowing a condition to progress to the extent that it warrants an inpatient admission.

#### **Appropriateness of ED Care**

A fundamental goal of managed care programs such as HealthChoice is the delivery of the right care at the right time in the right setting. One widely used methodology to evaluate this goal in the ED setting is based on classifications developed by researchers at the New York University Center for Health and Public Service Research (NYU) (Billings, Parikh, & Mijanovich, 2000). According to Billings et al. (2000), the ED use profiling algorithm categorizes emergency visits as follows:

- 1. *Non-emergent*: Immediate care was not required within 12 hours based on the patient's presenting symptoms, medical history, and vital signs.
- 2. *Emergent but primary care treatable*: Treatment was required within 12 hours, but it could have been provided effectively in a primary care setting (e.g., CAT scan or certain lab tests).
- 3. *Emergent but preventable/avoidable*: Emergency care was required, but the condition was potentially preventable/avoidable if timely and effective ambulatory care had been received during the episode of illness (e.g., asthma flare-up).
- 4. *Emergent, ED care needed, not preventable/avoidable*: Ambulatory care could not have prevented the condition (e.g., trauma or appendicitis).
- 5. *Injury*: Injury was the principal diagnosis.
- 6. Alcohol-related: The principal diagnosis was related to alcohol.
- 7. *Drug-related*: The principal diagnosis was related to drugs.
- 8. *Mental health-related*: The principal diagnosis was related to mental health.



9. *Unclassified*: The condition was not classified in one of the above categories by the expert panel.

ED visits that fall into categories 1 through 3 may indicate problems with access to primary care, including access to after hour primary care and urgent care centers. Figure 8 presents the distribution of all ED visits by NYU classification for CY 2014 for individuals with any period of HealthChoice enrollment. In CY 2014, 51.2 percent of all ED visits were for potentially avoidable conditions; that is, the visit could have been avoided with timely and quality primary care.

ED visits in categories 4 (emergent, ED care needed, not preventable/avoidable) and 5 (injury) are the least likely to be prevented with access to primary care. These two categories accounted for 26.5 percent of all ED visits in CY 2014. Adults aged 40 through 64 years had more ED visits related to category 4 than other age groups. Children aged 3 through 18 years had more injury-related ED visits than other age groups. The inpatient category in Figure 8, which is not a part of the NYU classification, represents ED visits that resulted in a hospital admission. As would be expected, participants with disabilities had a much higher rate of ED visits that led to an inpatient admission than participants in the F&C and MCHP coverage groups.

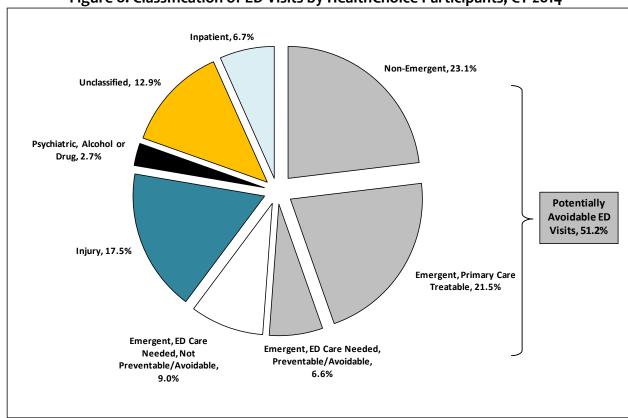


Figure 8. Classification of ED Visits by HealthChoice Participants, CY 2014



Figure 9 compares the ED visit classifications for CY 2010 with the classifications for CY 2014. The data show that potentially avoidable ED visits increased during the evaluation period, from 50.8 percent of all ED visits to 51.2 percent. DHMH will continue to monitor ED use with the goal of reducing potentially avoidable ED visits.

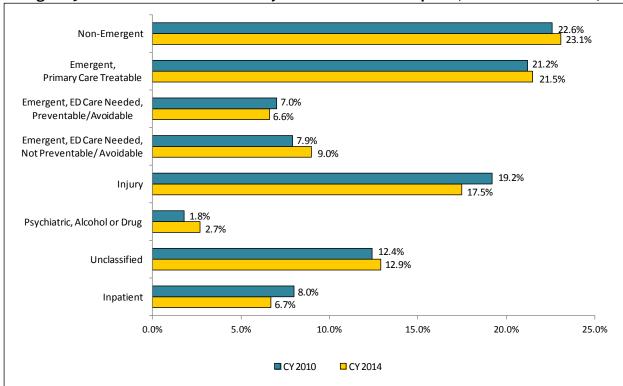


Figure 9. Classification of ED Visits by HealthChoice Participants, CY 2010 and CY 2014

#### **Preventable or Avoidable Admissions**

Ambulatory care sensitive hospitalizations (ACSHs), also referred to as preventable or avoidable hospitalizations, are inpatient admissions that may have been prevented if proper ambulatory care had been provided in a timely and effective manner. High numbers of avoidable admissions may indicate problems with access to primary care services or deficiencies in outpatient management and follow-up. DHMH monitors potentially avoidable admissions using AHRQ's Prevention Quality Indicators (PQIs) methodology, which looks for specific primary diagnoses in hospital admission records indicating the conditions listed in each PQI. The measures presented are as follows:<sup>12</sup>

■ PQI #1: Diabetes Short-Term Complications

<sup>&</sup>lt;sup>12</sup> AHRQ PQI Methodology Version 4.3

- PQI #2: Perforated Appendix
- PQI #3: Diabetes Long-Term Complications
- PQI #5: Chronic Obstructive Pulmonary Disease (COPD) or Asthma in Older Adults
- PQI #7: Hypertension
- PQI #8: Congestive Heart Failure
- PQI #10: Dehydration
- PQI #11: Bacterial Pneumonia
- PQI #12: Urinary Tract Infection
- PQI #13: Angina Without Procedure
- PQI #14: Uncontrolled Diabetes
- PQI #15: Asthma in Younger Adults
- PQI #16: Lower-Extremity Amputation in Patients with Diabetes
- PQI #90<sup>13</sup>: Prevention Quality Overall Composite
- PQI #91<sup>14</sup>: Prevention Quality Acute Composite
- PQI #92<sup>15</sup>: Prevention Quality Chronic Composite

The measure denominators include the number of HealthChoice participants who meet the following enrollment criteria:

- Aged 18 to 64 years as of December 31 of the calendar year
  - o For PQI #5: Aged 40 to 64 years as of December 31 of the calendar year
  - o For PQI #15: Aged 18 to 39 years as of December 31 of the calendar year
- Enrolled in the same HealthChoice MCO as of December 31 of the calendar year as the MCO that paid for the inpatient admission qualifying them for a PQI designation.

Table 7 presents the number of potentially avoidable MCO inpatient admissions per 100,000 HealthChoice participants aged 18 to 64 years during CY 2010 through CY 2014. COPD or Asthma in Older Adults (PQI #5) was responsible for the highest number of potentially avoidable admissions throughout the evaluation period. The number of potentially avoidable admissions for Perforated Appendix (PQI #2), Angina without Procedure (PQI #13), Uncontrolled Diabetes (PQI #14), and Lower-Extremity Amputation in Patients with Diabetes (PQI #16) were the smallest across the evaluation period.

<sup>15</sup> POI #92 includes POI #s 1, 3, 5, 7, 8, 13, 14, 15, and 16.



<sup>&</sup>lt;sup>13</sup> PQI #90 includes PQI #s 1, 3, 5, 7, 8, 10, 11, 12, 13, 14, 15, and 16.

<sup>&</sup>lt;sup>14</sup> PQI #91 includes PQI #s 10, 11, and 12.

Table 7. Number of Potentially Avoidable MCO Admissions per 100,000 HealthChoice Participants Aged 18–64 Years (Any Period of Enrollment), CY 2010–CY 2014<sup>16</sup>

Any PQI #	CY 2010	CY 2011	CY 2012	CY 2013	CY 2014
1: Diabetes Short-Term Complications Admissions	200	187	168	183	188
2: Perforated Appendix Admissions	16	18	16	16	18
3: Diabetes Long-Term Complications Admissions	238	201	167	174	141
5: COPD or Asthma in Older Adults Admissions (Ages 40-64)	1,706	1,644	1,379	1,087	695
7: Hypertension Admissions	102	84	70	62	63
8: Congestive Heart Failure Admissions	273	246	207	217	193
10: Dehydration Admissions	126	106	94	71	70
11: Bacterial Pneumonia Admissions	290	265	215	221	186
12: Urinary Tract Infection Admissions	196	183	148	139	100
13: Angina Without Procedure Admissions	30	19	12	11	10
14: Uncontrolled Diabetes Admissions	35	26	22	20	14
15: Asthma in Younger Adults Admissions (Ages 18-39)	166	135	142	126	100
16: Lower-Extremity Amputation In Patients With Diabetes	10	7	12	10	12
90: Prevention Quality Overall Composite	2,140	1,913	1,626	1,577	1,337
91: Prevention Quality Acute Composite	612	554	458	431	356
92: Prevention Quality Chronic Composite	1,528	1,359	1,168	1,146	981

Table 8 presents the number and percentage of adults aged 18 to 64 years who were enrolled in an MCO with at least one MCO inpatient admission and with PQI admissions during the evaluation period. Overall, the percentage of adults enrolled in HealthChoice with at least one MCO inpatient admission with a PQI designation decreased from 1.4 percent in CY 2010 to 0.9 percent in CY 2014. This downward trend is consistent with the observed decrease in the percentage of participants with at least one inpatient admission, from 14.5 percent in CY 2010 to 9.1 percent in CY 2014. Among HealthChoice adults with an MCO inpatient admission, the percentage of participants with a PQI-designated admission increased slightly, from 9.3 percent in CY 2010 to 10 percent in CY 2014.

<sup>&</sup>lt;sup>16</sup> This measure was changed for this year's evaluation by presenting the number of potentially avoidable admissions per 100,000 participants instead of percentages. The methodology for calculating inpatient admission rates was revised for this year's evaluation. Revisions include counting only MCO inpatient stays and updating the methodology for calculating stays across years.

Table 8. Potentially Avoidable Admission Rates, Participants Aged 18–64 Years (Any Period of Enrollment), with ≥1 MCO Inpatient Admission, CY 2010–CY 2014<sup>17</sup>

Year	# of Participants in HealthChoice	# of Participants with ≥1 MCO Admissions	% of Participants with ≥1 MCO Admissions	# of Participants with Any PQI	% of Participants with Any PQI	% of Participants With ≥1 MCO Admissions who had a PQI
CY 2010	311,759	45,293	14.5%	4,230	1.4%	9.3%
CY 2011	346,903	46,169	13.3%	4,118	1.2%	8.9%
CY 2012	364,543	45,103	12.4%	3,702	1.0%	8.2%
CY 2013	379,163	44,602	11.8%	4,012	1.1%	9.0%
CY 2014	636,740	57,688	9.1%	5,767	0.9%	10.0%

<sup>\*</sup>This measure includes only MCO inpatient admissions.

# **Section II Summary**

This section of the report addressed the extent to which HealthChoice provides participants with a medical home by assessing appropriateness of service utilization. In reviewing appropriateness of care, potentially avoidable ED visits increased slightly—by 0.4 percentage points—during the evaluation period. The potentially avoidable admission rate for COPD or Asthma in Older Adults was the highest PQI throughout the evaluation period. The percentage of adult participants enrolled in HealthChoice with at least one admission with a PQI designation decreased from 1.4 percent in CY 2010 to 0.9 percent in CY 2014. This downward trend is consistent with the overall decrease in the percentage of adult participants with an MCO inpatient admission, from 14.5 percent in CY 2010 to 9.1 percent in CY 2014.

<sup>&</sup>lt;sup>17</sup> The methodology for calculating inpatient admission rates was revised for this year's evaluation. Revisions include counting only MCO inpatient stays and updating the methodology for calculating stays across years.



# Section III. Quality of Care

Another goal of the HealthChoice program is to improve the quality of health services delivered. DHMH has an extensive system for quality measurement and improvement that uses nationally recognized performance standards. Quality activities include the External Quality Review Organizations (EQRO) annual report, CAHPS survey of consumer satisfaction, value-based purchasing (VBP) program, and Healthcare Effectiveness Data and Information Set (HEDIS) quality measurements. HEDIS data are validated by nationally certified vendors to ensure that all plan participants collect data using an identical methodology, which allows for meaningful comparisons across health plans. DHMH also reviews a sample of medical records to ensure that MCOs meet EPSDT standards. This section of the report presents highlights of these quality improvement activities related to preventive care and care for chronic conditions.

Because of NCQA restrictions, national HEDIS means cannot be published. Therefore, a "+" sign indicates that Maryland's rate is above the national HEDIS mean, while a "-" sign indicates that Maryland's rate is below the national mean.

#### **Preventive Care**

#### **HEDIS Childhood Measures**

DHMH uses HEDIS measures to report childhood immunization and well-child visit rates. Immunizations are evidence-based interventions that safely and effectively prevent severe illnesses, such as polio and hepatitis (HealthcareData Company, LLC, 2015). The HEDIS immunization measures include the percentage of two-year-olds who received the following immunizations on or before their second birthday: four diphtheria, tetanus, and acellular pertussis (DTaP); three polio (IPV); one measles, mumps, and rubella (MMR); three H influenza type B (Hib); three hepatitis B; one chicken pox (VZV); and four pneumococcal conjugate (PCV) vaccines. HEDIS calculates a rate for each vaccine and nine different combination rates. Immunization combination two includes all of these vaccines except the four PCV; combination three includes each of the above listed vaccines with its appropriate number of doses. DHMH compares health plan rates for immunization combinations two and three.

Table 9 presents the immunization and well-child measures for the HealthChoice population. HealthChoice performed above the national HEDIS mean across all measures from CY 2010 through CY 2014. Key findings from the table include:

<sup>&</sup>lt;sup>18</sup> A copy of the HEDIS 2015 results can be found online: https://mmcp.dhmh.maryland.gov/healthchoice/Documents/DHMH%202015%20HEDIS%20Executive%20Summary%20Report.pdf

- The percentage of two-year-old children receiving immunization combination two steadily increased until CY 2014, when it decreased by 4.4 percentage points from CY 2013
- The percentage of two-year-old children receiving immunization combination three steadily increased until CY 2014, when it decreased by 5.6 percentage points from CY 2013
- The percentage of 15-month-old infants who received at least five well-child visits steadily increased until CY 2014, when it decreased by 6.2 percentage points from CY 2013
- The percentage of children aged three to six years who received at least one well-child visit steadily increased until CY 2014, when it decreased by 2 percentage points from CY 2013
- The percentage of adolescents aged 12 to 21 years who received at least one well-care visit steadily increased until CY 2014, when it decreased by 5.2 percentage points from CY 2013

CY 2014 rate declines can be explained by the inclusion of rates from newer MCOs into the average rate calculations. Childhood immunization status-combination 3, well-child visits for 3-to 6-year-olds, and well-care visits for adolescents are a part of the VBP program.

Table 9. HEDIS Immunizations and Well-Child Visits: HealthChoice Compared with the National HEDIS Mean, CY 2010-CY 2014\*

micui, ci	2010 C1 2	.014		
CY 2010	CY 2011	CY 2012	CY 2013	CY 2014
79.9%	82.5%	80.2%	80.9%	76.5%
+	+	+	+	+
76.3%	79.7%	77.7%	79.1%	73.5%
+	+	+	+	+
82.4%	85.0%	83.9%	85.7%	79.5%
+	+	+	+	+
80.7%	85.0%	82.2%	84.0%	82.0%
+	+	+	+	+
62.8%	67.0%	65.4%	67.3%	62.1%
+	+	+	+	+
	79.9% + 76.3% + 82.4% + 80.7% +	CY 2010     CY 2011       79.9%     82.5%       +     +       76.3%     79.7%       +     +       82.4%     85.0%       +     +       80.7%     85.0%       +     +       62.8%     67.0%	79.9% 82.5% 80.2% + + +  76.3% 79.7% 77.7% + + +  82.4% 85.0% 83.9% + + +  80.7% 85.0% 82.2% + + +  62.8% 67.0% 65.4%	CY 2010         CY 2011         CY 2012         CY 2013           79.9%         82.5%         80.2%         80.9%           +         +         +         +           76.3%         79.7%         77.7%         79.1%           +         +         +         +           82.4%         85.0%         83.9%         85.7%           +         +         +         +           80.7%         85.0%         82.2%         84.0%           +         +         +         +           62.8%         67.0%         65.4%         67.3%

<sup>\*</sup>The HealthChoice averages in CY 2014 were impacted by the inclusion of HEDIS rates from newer MCOs into the calculation.



When the HEDIS scores from the newer MCOs in CY 2014 are excluded from the average rates, the HealthChoice program has demonstrated incremental improvements in each measure since CY 2010:

- Childhood Immunizations Combo 2: 81.0 percent (compared to 76.5 percent)
- Childhood Immunizations Combo 3: 78.5 percent (compared to 73.5 percent)
- Well Child Visits 15 Months of Life: 83.3 percent (compared to 79.5 percent)
- Well Child Visits 3 to 6 Year-Olds: 85.7 percent (compared to 82.0 percent)
- Well-Care Visits Adolescents: 67.0 percent (compared to 62.1 percent)

#### **EPSDT Review**

The EPSDT program is a required package of benefits for all Medicaid participants under the age of 21 years. The purpose of EPSDT is to ensure that children receive appropriate age-specific physical examinations, developmental assessments, and mental health screenings periodically to identify any deviations from expected growth and development in a timely manner. Maryland's EPSDT program aims to support access and increase the availability of quality health care. The goal of the EPSDT review is to examine whether EPSDT services are provided to HealthChoice participants in a timely manner. The review is conducted annually to assess HealthChoice provider compliance with the following five EPSDT components:

- *Health and developmental history*: A personal and family medical history helps the provider determine health risks and provide appropriate anticipatory guidance and laboratory testing.
- *Comprehensive physical exam*: The exam includes vision and hearing tests, oral assessment, nutritional assessment, and measurements of head circumference and blood pressure.
- *Laboratory tests/at-risk screenings*: These tests involve assessing the risk factors related to heart disease, anemia, tuberculosis, lead exposure, and sexually transmitted infections.
- *Immunizations*: Providers who serve HealthChoice participants must offer immunizations according to DHMH's recommended childhood immunization schedule.
- *Health education/anticipatory guidance*: Maryland requires providers to discuss at least three topics during a visit, such as nutrition, injury prevention, and social interactions. Referrals for dental care are required after a patient turns two years old.

MCOs use the review results to inform their education efforts to participants and providers about EPSDT services. DHMH has a Healthy Kids Program, whose nurse consultants support the MCOs and educate them on new EPSDT requirements. DHMH also collaborates with MCOs to share with their provider networks age appropriate encounter forms, risk assessment forms, and



questionnaires that are designed to assist with documenting preventive services according to the Maryland Schedule of Preventive Health Care.

From CY 2010 to CY 2014, provider compliance increased for two of the five EPSDT components (Table 10). These components are comprehensive physical exam and health education/anticipatory guidance. The HealthChoice Aggregate Total score remained stable during the evaluation period (Delmarva Foundation, 2011, 2014, 2015). Despite slight variations, all components and the aggregate total have remained above the minimum compliance score of 75 percent.

Table 10. HealthChoice MCO Aggregate Composite Scores for Components of the EPSDT Review, CY 2010–CY 2014

EPSDT Components	CY 2010	CY 2011	CY 2012	CY 2013	CY 2014
•					
Health and Developmental History	89%	89%	89%	89%	88%
Comprehensive Physical Exam	88%	92%	93%	91%	93%
Laboratory Tests/At-Risk Screenings	82%	79%	80%	77%	76%
Immunizations	89%	88%	86%	84%	83%
Health Education/Anticipatory Guidance	90%	90%	92%	89%	91%
HealthChoice Aggregate Total	88%	89%	89%	87%	88%

## **Childhood Lead Testing**

DHMH is a member of Maryland's Lead Poisoning Prevention Commission, which advises Maryland executive agencies, the General Assembly, and the Governor on lead poisoning prevention in the state. Maryland's Plan to Eliminate Childhood Lead Poisoning includes a goal of ensuring that young children receive appropriate lead risk screening and blood lead testing. As part of the work plan for achieving this goal, DHMH provides the MCOs with quarterly reports on children who received blood lead tests and children with elevated blood lead levels to ensure that these children receive appropriate follow-up. DHMH also includes blood lead testing measures in several of its quality assurance activities, including the VBP and managing-for-results programs.

As part of the EPSDT benefits, Medicaid requires that all children be provided or referred for a blood lead test at 12 and 24 months of age. DHMH measures the lead testing rates for children aged 12 through 23 months and 24 through 35 months who are continuously enrolled in the same MCO for at least 90 days. A child's lead test must have occurred during the calendar year or the year prior. For CY 2011, the lead test measure was revised to exclude children who disenrolled from HealthChoice before their birthday. Thus, the lead testing rates for CY 2010 is not comparable to the results of subsequent years.

<sup>&</sup>lt;sup>19</sup> The lead testing measures include lead tests reported in the Medicaid administrative data and the Childhood Lead Registry, which is maintained by the Maryland Department of the Environment.

Table 11 presents the lead testing rates for children aged 12 through 23 months and 24 through 35 months between CY 2010 and CY 2014. In CY 2014, the lead testing rate was 60.6 percent for children aged 12 through 23 months and 75.6 percent for children aged 24 through 35 months.

Table 11. Percentage of HealthChoice Children Aged 12–23 and 24–35 Months who Received a Lead Test During the Calendar Year or the Prior Year, CY 2010–CY 2014

Age Group (Months)	CY 2010*	CY 2011	CY 2012	CY 2013	CY 2014
12-23	57.5%	57.4%	57.9%	58.7%	60.6%
24–35	75.6%	76.6%	75.6%	76.6%	75.6%

<sup>\*</sup> The measure was revised in CY 2011 to exclude children who disenrolled before their birthday.

Thus, CY 2010 results cannot be compared with subsequent years.

## **Breast Cancer Screening**

Breast cancer is the most prevalent type of cancer among women (U.S. Cancer Statistics Working Group, 2015). The U.S. Cancer Statistics Working Group (2015) reported a breast cancer incidence rate of 122.2 cases per 100,000 women in 2012, the most recent data available. In Maryland, the breast cancer incidence rate was 124.9 cases per 100,000 women, slightly higher than the national average (U.S. Cancer Statistics Working Group, 2015). When breast cancer is detected early, it is easier to treat, and women have a greater chance of survival (CDC, 2014). According to the CDC (2014), mammograms are the most effective technique for detecting breast cancer early. HEDIS assesses the percentage of women who received a mammogram within a two-year period. Although there has been recent debate regarding the appropriate age requirements for mammograms, HEDIS continues to utilize the 40- to 69-year-old female cohort<sup>20</sup> for this measure.

Table 12 presents the percentage of women in HealthChoice who received a mammogram for breast cancer screening in CY 2010 through CY 2014 (HealthcareData Company, LLC, 2015). Between CY 2010 and CY 2014, the percentage of women aged 40 through 64 years<sup>21</sup> who received a mammogram increased by nearly 20 percentage points. The rate rose by almost 10 percentage points between CY 2013 and CY 2014. Maryland performed above the national HEDIS mean in CY 2013 and CY 2014. Breast cancer screenings were added to the VBP program in CY 2014.

<sup>&</sup>lt;sup>20</sup> Because HealthChoice only covers adults through the age of 64, the measures presented in the table are restricted to women aged 40 through 64 years.

<sup>&</sup>lt;sup>21</sup> Maryland's HealthChoice program covers individuals through age 64 years.

Table 12. Percentage of Women in HealthChoice Aged 40-64 Years who Received a Mammogram for Breast Cancer Screening, Compared with the National HEDIS Mean, CY 2010–CY 2014\*

	CY 2010	CY 2011	CY 2012	CY 2013	CY 2014
Percentage of Women in HealthChoice Aged 40–64 Years	48.3%	50.3%	51.0%	58.3%	67.9%
who Received a Mammogram					
National HEDIS Mean	-	-	-	+	+

<sup>\*</sup>The HealthChoice averages in CY 2014 were impacted by the inclusion of HEDIS rates from newer MCOs into the calculation.

## **Cervical Cancer Screening**

Cervical cancer is preventable and treatable, and the CDC recommends Papanicolaou (Pap) tests for cervical cancer screening in women who are sexually active or over the age of 21 (CDC, n.d.b). Because Pap screenings can detect precancerous cells early, cervical cancer can be treated or prevented (CDC, n.d.b). HEDIS measures the percentage of women who received a cervical cancer screening using one of these criteria: 1) women aged 21 to 64 who had cervical cytology performed every three years, or 2) women aged 30 to 64 who had cervical cytology/human papillomavirus (HPV) co-testing performed every five years.

Table 13 presents the percentage of women aged 21 to 64 years in HealthChoice who received a cervical cancer screening in CY 2010 through CY 2014 (HealthcareData Company, LLC, 2015). Between CY 2010 and CY 2013, the cervical cancer screening rate steadily increased. However, in CY 2014, the screening rate decreased by 9.4 percentage points from CY 2013. This decline in performance can be explained by the inclusion of a new HealthChoice MCO into the average rate calculation. The newer MCOs had a significant impact on the average of this measure, with one scoring 35.5 percent and another scoring 90.8 percent. Excluding the newer MCOs, the rate for established HealthChoice MCOs was 66.6 percent for CY 2014. HealthChoice performed above the national HEDIS mean throughout the measurement period.

Table 13. Percentage of Women in HealthChoice Aged 21–64 Years who Received a Cervical Cancer Screening, Compared with the National HEDIS Mean, CY 2010–CY 2014\*

	CY 2010	CY 2011	CY 2012	CY 2013	CY 2014
Percentage of Women in HealthChoice Aged 21–64 Years who Received a Cervical Cancer Screening	73.2%	73.1%	73.7%	75.2%	65.8%
National HEDIS Mean	+	+	+	+	+

<sup>\*</sup>The HealthChoice averages in CY 2014 were impacted by the inclusion of HEDIS rates from newer MCOs into the calculation.



#### **HPV Vaccine for Female Adolescents**

DHMH has increased efforts to vaccinate girls and young women against HPV. According to the CDC (2015), about 14 million people, including teens, become infected with HPV each year, posing a significant public health risk. HPV is a common virus that spreads by sexual contact and can cause cervical cancer in women and penile cancer in men. HPV can also cause anal cancer, throat cancer, and genital warts in both men and women (CDC, 2015).

Administering widespread vaccinations for HPV could drastically reduce the number of cervical cancer cases. In 2014, the HEDIS HPV vaccination rates became available for the first time. HEDIS assesses the percentage of 13-year-old females who received three doses of the HPV vaccine by their 13<sup>th</sup> birthday. In CY 2014, 22.8 percent of female adolescents received the HPV vaccine by their 13<sup>th</sup> birthday, which is higher than the national HEDIS mean. Nevertheless, there is still significant room for improvement in this area.

#### **Colorectal Cancer Screening**

According to the National Cancer Institute (2014), colorectal cancer is one of the most common cancers in both men and women. In Maryland, colorectal cancer is the third most commonly-diagnosed cancer among both women and men, as well as the second-leading cause of cancer mortality.<sup>23</sup> The expansion of Medicaid coverage to childless adults and additional parents and caretakers has removed a major access barrier for age-eligible low-income adults to be screened for colorectal cancer.

Colorectal cancer usually develops from precancerous polyps (abnormal growths) in the colon or rectum. Screening tests can find precancerous polyps that can be removed before they become cancerous (CDC, 2016). Screening tests can also detect colorectal cancer early, when treatment works is more effective (National Cancer Institute, 2014). HEDIS assesses the percentage of people aged 50 through 75 years who received an appropriate screening for colorectal cancer within a specific timeframe. HEDIS defines an "appropriate screening" as follows: a fecal occult blood test (FOBT) during the measurement year, a flexible sigmoidoscopy during the measurement year or the prior four years, and a colonoscopy during the measurement year or the prior nine years.

Table 14 shows the percentage of HealthChoice participants who received at least one of the three appropriate screenings for colorectal cancer in CY 2010 through CY 2014. Please note that the HEDIS specifications include individuals through age 75 years, but HealthChoice only

<sup>&</sup>lt;sup>23</sup> Maryland Comprehensive Cancer Control Plan, Maryland Department of Health and Mental Hygiene, updated July 2011. Available at: <a href="http://phpa.dhmh.maryland.gov/cancer/cancerplan/SitePages/Home.aspx">http://phpa.dhmh.maryland.gov/cancer/cancerplan/SitePages/Home.aspx</a>. Last accessed April 30, 2012.



<sup>&</sup>lt;sup>22</sup> The HPV vaccine is recommended for both males and females, although the HEDIS measure focuses exclusively on females. Other state initiatives, including Healthy People 2020, track vaccination for both males and females at an older age, from 13 to 15 years of age.

covers individuals through age 64 years. Thus, the data presented pertain to enrollees aged 50 through 64 years and is based exclusively on administrative data. Only participants who met the HEDIS eligibility requirements were included in the population for this measure. These participants were continuously enrolled in Medicaid during the calendar year and the preceding calendar year. Participants were also enrolled on the last day of the measurement year and did not have more than one gap of enrollment exceeding 45 days during each year of continuous enrollment.

Between CY 2010 and CY 2014, the percentage of enrollees aged 50 through 64 years who received a colorectal cancer screening decreased by 7.4 percentage points. The decrease of 6.6 percentage points between CY 2013 and CY 2014 is likely attributable to the influx of new HealthChoice participants who enrolled as a result of the ACA. Two of the screenings, flexible sigmoidoscopy and colonoscopy, can be completed within the prior four and nine years, respectively. The group of newly enrolled participants did not have the full length of time to complete screenings compared to participants who had been eligible for HealthChoice for a longer period of time.

Table 14. Percentage of HealthChoice Participants Aged 50 – 64 Years Receiving a Screening for Colorectal Cancer, CY 2010–CY 2014

CY 2010	CY 2011	CY 2012	CY 2013	CY 2014
39.5%	39.3%	38.8%	38.7%	32.1%

# **Care for Chronic Conditions**

## Use of Appropriate Medications for People with Asthma

DHMH uses HEDIS to report the use of appropriate medications for people with asthma. This HEDIS asthma measure includes the percentage of 5- to 64-year-olds who were identified as having persistent asthma and were appropriately prescribed at least one of the following asthma medications during the measurement year: antiasthmatic combinations; antiasthmatic combinations; inhaled steroid combinations; inhaled corticosteroids; leukotriene modifiers; longacting, inhaled beta-2 agonists; mast cell stabilizers; methylxanthines; or short-acting, inhaled beta-2 agonists. Asthma is a common chronic disease that affects more than 32 million American children and adults (CDC, n.d.a). In 2010, approximately 752,000 adults and children in Maryland had a history of asthma (Bankoski, De Pinto, Hess-Mutinda, & McEachern, 2012).

HEDIS does not currently have a measure for colorectal cancer screening for Medicaid; the corresponding commercial measure includes individuals between the ages of 50 and 75. Additionally, the commercial measure relies on a hybrid measurement approach, using both claims and clinical data, whereas the measures in Table 14 do not use clinical data. The results represent individuals across the Medicaid population—*i.e.*, if an individual is up-to-date with his screening but switched between MCOs or fee-for-service coverage over the course of the reference period, he will be accounted for as up-to-date. However, a limitation of the data exists in that current Medicaid enrollees screened while not enrolled in Maryland Medicaid—but who are up-to-date—will not be counted. The measure excludes participants with a diagnosis of colorectal cancer or removal of the colon from the denominator.



The purpose of asthma medications is to prevent or reduce airway inflammation and narrowing. If appropriate asthma medications are prescribed and used correctly, asthma-related hospitalizations, ED visits, and missed school and work days decrease (CDC, n.d.a).

Table 15 presents the HealthChoice rate of appropriate medications for people with asthma in CY 2010 through CY 2014 (HealthcareData Company, LLC, 2015). For CY 2010, the measure was restricted to individuals in HealthChoice aged 5 through 50 years. Beginning in CY 2011, the measure was expanded to include individuals through age 64. Because of the differences in the age requirements, CY 2010 results should not be compared to CY 2011–CY 2014 results. In CY 2014, 87.0 percent of HealthChoice participants aged 5 through 64 years were appropriately prescribed medications for asthma treatment, a 6.1 percentage point decrease from CY 2011. The newer MCOs could not report on this measure in CY 2014 and therefore had no impact on the HealthChoice rate. Despite the drop, the program still outperformed the national average rate.

Table 15. Percentage of HealthChoice Members Aged 5–64 Years with Persistent Asthma who were Appropriately Prescribed Medications, Compared with the National HEDIS

Mean. CY 2010–CY 2014

	CY 2010	CY 2011*	CY 2012	CY 2013	CY 2014
	Members Aged 5-50 Years	Members Aged 5-64 Years			rs
Percentage of HealthChoice Members Aged 5-64 Years with Persistent Asthma who were Appropriately Prescribed Medications	90.8%	93.1%	89.4%	86.7%	87.0%
National HEDIS Mean	**	+	+	+	+

<sup>\*</sup> HEDIS specifications were revised in 2012 (CY 2011 data), and the age range was modified.

#### **Comprehensive Diabetes Care**

Diabetes is a disease caused by the inability of the body to make or use the hormone insulin. The complications of diabetes are serious and include heart disease, kidney disease, stroke, and blindness. However, screening and treatment can reduce the burden of diabetes complications (HealthcareData Company, LLC, 2014). To assess appropriate and timely screening and treatment for adults with diabetes (types 1 and 2), HEDIS includes a composite set of measures, referred to as comprehensive diabetes care, which include the following:

• Eye Exams: The percentage of participants aged 18 through 64 years with diabetes who received an eye exam for diabetic retinal disease during the measurement year or had a negative retinal exam (i.e., no evidence of retinopathy) in the year prior to the measurement year.



<sup>\*\*</sup> National HEDIS means are not available for the age range of 5-50 years.

- *HbA1c Testing*: The percentage of participants aged 18 through 64 years with diabetes who received at least one hemoglobin A1c (HbA1c) test during the measurement year. This measure is a part of the VBP program.
- *LDL-C Screening*: The percentage of participants aged 18 through 64 years with diabetes who received at least one low-density lipoprotein cholesterol (LDL-C) screening in the measurement year. This measure was retired for CY 2014.

Table 16 presents annual HealthChoice performance on the comprehensive diabetes care measures for CY 2010 through CY 2014 (HealthcareData Company, LLC, 2015). HealthChoice consistently performed above the national HEDIS mean on eye exams throughout the evaluation period. HealthChoice performed above the national average on HbA1c testing in CY 2014. However, it is worth noting that the HealthChoice participants evaluated for this measure are 18 to 64 years old, while the HEDIS measure used as the benchmark evaluates adults aged 18 to 75 years. Key findings from table include the following:

- The percentage of participants with diabetes who received an eye exam increased steadily until CY 2014, when it decreased by 7.8 percentage points from CY 2013.
- The percentage of participants with diabetes who received an HbA1c test increased by 11.4 percentage points during the measurement period.
- The percentage of participants with diabetes who received an LDL-C screening increased by 2.9 percentage points during the measurement period. This measure was retired for CY 2014.

Table 16. Percentage of HealthChoice Members Aged 18–64 Years with Diabetes who Received Comprehensive Diabetes Care, Compared with the National HEDIS Mean, CY 2010–CY 2014\*

HEDIS MEASURES	CY 2010	CY 2011	CY 2012	CY 2013	CY 2014
Eye Exam (Retinal)					
HealthChoice	67.9%	71.0%	69.6%	69.3%	61.5%
National HEDIS Mean	+	+	+	+	+
HbA1c Test					
HealthChoice	77.6%	81.0%	81.2%	85.5%	89.0%
National HEDIS Mean	-	-	-	+	+
LDL-C Screening**					
HealthChoice	74.3%	76.4%	75.7%	77.2%	N/A
National HEDIS Mean	-	+	+	+	

Source: HealthcareData Company, LLC., September 2014



<sup>\*</sup>The HealthChoice averages in CY 2014 were impacted by the inclusion of HEDIS rates from newer MCOs into the calculation.

<sup>\*\*</sup>This measure was retired for CY 2014.

# Section III Summary

This section of the report discussed the HealthChoice goal of improving quality of care and focused on preventive care and care for chronic conditions. Regarding preventive care for children, HealthChoice well-child visit and immunization combination two and three rates were consistently higher than the national HEDIS mean. Regarding EPSDT, provider compliance increased for two of the five components. The HealthChoice Aggregate Total score remained stable during the evaluation period (Delmarva Foundation, 2011, 2014, 2015). Regarding preventive care for adults, breast cancer screening improved during the evaluation period by nearly 20 percentage points.

This section also examined the quality of care for chronic conditions, specifically asthma and diabetes. The percentage of participants receiving appropriate asthma medications decreased between CY 2010 and CY 2014, but still exceeded the national HEDIS mean. For participants with diabetes, HbA1c testing rates improved during the evaluation period. The HbA1c testing rates were above the national HEDIS mean for CY 2013 and CY 2014, and eye exams exceeded national HEDIS means in all years.

The HealthChoice program had a large influx of adults who had never been enrolled in Medicaid. These new participants took longer to engage in appropriate primary care treatment. This affected the scores of HEDIS measures that are based on using services. In addition, new MCOs came on the market in CY 2013 and CY 2014. It took time for their encounter data to become complete. Although the new MCOs served fewer members, the overall HEDIS scores were dramatically affected because the methodology uses a simple average to calculate overall HealthChoice HEDIS scores instead of a weighted average. The six longer-participating MCOs continued to have constant quality results.



# **Section IV. Special Topics**

This section of the report discusses several special topics, including services provided under the dental and mental health carve-outs, SUD services, behavioral health integration, services provided to children in foster care, reproductive health services, services provided to individuals with HIV/AIDS, the REM program, and access to care stratified by race/ethnicity.

#### **Dental Services**

EPSDT mandates dental care coverage for children younger than 21 years. Children enrolled in Maryland Medicaid, however, have historically utilized these services at a low rate. Before Maryland implemented HealthChoice in 1997, only 14 percent of children enrolled in Medicaid for any period of time received at least one dental service, which was below the national average of 21 percent (American Academy of Pediatrics, n.d.).

In an effort to increase access to oral health care and service utilization, the Secretary of DHMH convened the Dental Action Committee (DAC) in June 2007. The DAC consisted of a broad-based group of stakeholders concerned about children's access to oral health services. The DAC reviewed dental reports and data and presented its final report to the DHMH Secretary on September 11, 2007. Key recommendations from the report included increased reimbursement for Medicaid dental services and the institution of a single dental administrative services organization (ASO) (Dental Action Committee, 2007). The reforms recommended by the DAC have been supported and, to a great extent, implemented by DHMH to effectively address the barriers to dental care access previously experienced in the state. Expanded access to dental care has also been achieved through the following initiatives of the Medicaid program and the Office of Oral Health:

- Increasing dental provider payment rates in 2008, with plans to increase rates further as the budget allows.
- Implementing an ASO in July 2009 to oversee Medicaid dental benefits for pregnant women, children, and adults in the REM program (the Maryland Healthy Smiles program).
- Authorizing EPSDT-certified medical providers (pediatricians, family physicians, and nurse practitioners), after successful completion of an Office of Oral Health training program, to receive Medicaid reimbursement for fluoride varnish treatment and oral assessment services provided to children between 9 and 36 months of age. As of FY 2013, 441 unique EPSDT-certified providers administered more than 84,000 fluoride varnish treatments (Goodman, 2013).
- Allowing public health dental hygienists to perform services within their scope of
  practice without onsite supervision and prior examination of the patient by a dentist. This
  change permits public health dental hygienists to provide services outside of a dental



office (e.g., in schools and Head Start centers). (Maryland Department of Health and Mental Hygiene, 2010).

Maryland's current oral health achievements are a direct result of the state's progress in implementing the 2007 DAC recommendations, which called for increasing access to oral health services through changes to Maryland Medicaid and expanding the public health dental infrastructure. In 2010 and 2011, the Pew Center on the States named Maryland a national leader in improving dental care access for residents with low income, especially the Medicaid-eligible and uninsured. Because Maryland is the only state to meet seven of the eight dental policy benchmarks, the Pew Center ranked it first in the nation for oral health (Pew Center on the States, 2011). CMS also recognized Maryland's improved oral health service delivery by asking Maryland to share its story at a CMS national quality conference in August 2011, including achievements in its best practices guide for states and their governors through the Medicaid State Technical Assistance Team (MSTAT) process. In addition, Maryland was invited to present in the inaugural *CMS Learning Lab: Improving Oral Health through Access* web seminar series.

However, even with these substantial improvements, concerns about access to dental care remain. At the conclusion of the 2013 legislative session, the Maryland General Assembly requested DHMH to provide a report on the utilization of pediatric dental surgery, one of the mandated dental services under EPSDT. The goal of pediatric restorative dental surgery is to repair or limit the damage from caries, protect and preserve the tooth structure, reestablish adequate function, restore esthetics (where applicable), and provide ease in maintaining good oral hygiene. Although this procedure is preventable, children need to be able to access this in a timely manner, if warranted, in order to maintain good health. In its report, DHMH made several recommendations designed to improve access to pediatric dental surgery, including the following:

- Increasing the payment rate for anesthesia (CPT code 00710) to 100 percent of the Medicare rate.
- Recommending that hospitals offer operating room (OR) block times for dental cases to improve access to hospital facilities by dentists.
- Establishing a facility rate to pay ambulatory surgery centers (ASCs) in order to increase the number of sites where dentists may perform OR procedures and reduce pressure on hospitals.
- Continuing to improve access to preventive dental care in order to reduce the need for non-preventive procedures.
- Requiring hospitals to report stipends paid to hospital-based physicians and anesthesiologists as part of a larger analysis—conducted by DHMH in partnership with the Health Services Cost Review Commission (HSCRC)—of the proper reimbursement rate for providers.



DHMH continually monitors a variety of measures of dental service utilization, published in the Annual Oral Health Legislative Report. Table 17 displays the dental visit rate for children. The dental visit rate among children aged 4 to 20 years increased by 3.6 percentage points between CY 2010 and CY 2014. Nevertheless, many children still do not receive the dental services they need.

Table 17. Children Aged 4–20 Years in Medicaid (Enrolled for at least 320 Days)

Receiving a Dental Visit, CY 2010–CY 2014

Year	Total Number of Enrollees	Number of Enrollees Receiving at least One Visit	Percentage Receiving a Visit
CY 2010	333,167	213,714	64.1%
CY 2011	362,197	241,365	66.6%
CY 2012	385,132	261,077	67.8%
CY 2013	405,873	277,272	68.3%
CY 2014	423,625	286,713	67.7%

Source: Dental Joint Chairmen's Report Data, Calendar Year 2014 Memorandum

Dental care is also a benefit for pregnant women. The ASO contracted to run the Maryland Healthy Smiles program conducted postcard and flyer-based mailings to women enrolled in pregnancy-related coverage groups to engage them in care during the evaluation period. The ASO also participated in community-based events, such as Head Start Parent meetings and WIC meetings. DHMH anticipates further positive progress in these measurement areas following the procurement of a new ASO in 2016. The ASO is in the process of embarking on a comprehensive five-year plan designed to improve the engagement of pregnant women in dental care. At the heart of this program are the assignment of pregnant women to a Dental Home, enhanced individualized outreach by phone and through other mechanisms to ensure pregnant women are aware of their dental benefit and how to access services, and the formation of partnerships with key oral health partners, such as OB/GYNs providers.

Table 18 presents the percentage of pregnant women aged 21 years and older who were enrolled for at least 90 days in Medicaid and received at least one dental visit between CY 2010 and CY 2014. During that time period, dental service utilization initially increased from 29.5 percent in CY 2010 to 32.1 percent in CY 2011, but then decreased to 27.0 percent in CY 2014.



Table 18. Percentage of Pregnant Women Aged 21+ Years in Medicaid\* (Enrolled for at Least 90 Days) Receiving a Dental Visit, CY 2010–CY 2014<sup>25</sup>

Year	Total Number of Enrollees	Number of Enrollees Receiving at least One Visit	Percentage Receiving a Visit
CY 2010	19,850	5,854	29.5%
CY 2011	20,990	6,728	32.1%
CY 2012	22,162	6,613	29.8%
CY 2013	22,698	6,175	27.2%
CY 2014	25,456	6,878	27.0%

<sup>\*</sup>The study population for CY 2010 through CY 2014 measured dental utilization for all qualifying individuals in Maryland's Medical Assistance program, including FFS and HealthChoice MCO enrollees. The following coverage groups were excluded from the analysis: S09 (PAC program), X02 (undocumented or unqualified immigrants), W01 (Women's Breast and Cervical Cancer Health Program), and P10 (Family Planning Program).

#### **Mental Health Services**

HealthChoice participants in need of mental health services are referred to Maryland's Public Mental Health System, but they continue to receive medically necessary somatic care through their MCOs. Mental health services are funded through the FFS Maryland Behavioral Health Administration using an ASO, Beacon Health Options (formerly ValueOptions).

Table 19 shows the percentage of the HealthChoice population diagnosed with and/or treated for a mental health disorder (MHD)<sup>26</sup> by age group. The percentage of children and adolescents with an MHD gradually increased over the evaluation period, from 18.4 percent in CY 2010 to 20.3 percent in CY 2014. The percentage of adults with an MHD was more stable, indicating that the overall increase in MHD diagnoses and treatment was mainly driven by children and adolescents.

<sup>&</sup>lt;sup>26</sup> Individuals are identified as having an MHD if they have any ICD-9 diagnosis codes that begin with 290, 293-302, 306-316, or an invoice control number (ICN) beginning with "6" denoting a specialty mental health claim.



<sup>&</sup>lt;sup>25</sup> Data for this measure were revised and updated across the entire measurement period.

Table 19. Percentage of HealthChoice Population (Any Period of Enrollment) with an MHD by Age Group, CY 2010–CY 2014

Age Group (Years)	CY 2010	CY 2011	CY 2012	CY 2013	CY 2014
0 – 18	18.4%	18.9%	19.8%	20.4%	20.3%
19 – 64	27.7%	27.5%	27.7%	27.5%	26.2%
Total	21.6%	22.0%	22.7%	23.0%	23.2%

Table 20 presents the regional distribution of HealthChoice participants with an MHD. Since CY 2010, the percentage of individuals with an MHD in Baltimore gradually declined, with corresponding increases in the Baltimore and Washington Suburban regions. These changes are likely due to shifts in the population.

Table 20. Regional Distribution of HealthChoice Participants (Any Period of Enrollment) with an MHD. CY 2010–CY 2014

Region	CY 2010	CY 2011	CY 2012	CY 2013	CY 2014			
Baltimore City	27.5%	26.4%	26.2%	25.1%	24.1%			
Baltimore Suburban	28.3%	28.7%	28.7%	28.8%	30.0%			
Eastern Shore	12.1%	12.4%	12.2%	11.8%	11.5%			
Southern Maryland	4.7%	4.6%	4.6%	4.8%	4.9%			
Washington Suburban	20.2%	20.8%	21.3%	22.4%	22.5%			
Western Maryland	7.1%	7.0%	7.0%	7.0%	6.9%			
Total	100%	100%	100%	100%	100%			
Number of Enrollees	179,958	196,285	211,223	218,956	290,024			

Because mental health services are carved out of the MCO benefit package, DHMH monitors the extent to which participants with an MHD access health care services through their MCOs. Table 21 presents the percentage of HealthChoice participants with an MHD who visited a physician or an ED through their MCOs. A large majority of participants with an MHD had at least one MCO physician visit during each year of the evaluation period, with an increase of 2.9 percentage points between CY 2010 and CY 2014. Across the study period, less than half of individuals with an MHD visited an ED through their MCO, although the percentage increased by 3.1 percentage points between CY 2010 and CY 2014.



Table 21. Service Utilization among HealthChoice Participants (Any Period of Enrollment) with an MHD, CY 2010–CY 2014

Year	Number of HealthChoice Participants with an MHD	HealthChoice At Least 1 MCO Participants Ambulatory	
CY 2010	179,958	85.4%	39.6%
CY 2011	196,285	86.6%	43.5%
CY 2012	211,223	87.0%	43.4%
CY 2013	218,956	87.2%	42.8%
CY 2014	290,024	88.3%	42.7%

### **Substance Use Disorder Services**

SUD<sup>27</sup> services were provided under the HealthChoice MCO benefit package during this measurement period. Table 22 shows the percentage of HealthChoice participants diagnosed with and/or treated for an SUD by age group. Overall, the percentage of enrollees with an SUD increased by 2.5 percentage points between CY 2010 and CY 2014. This can be attributed to the large influx of adults due to the ACA expansion.

Table 22. Percentage of HealthChoice Population (Any Period of Enrollment) with an SUD by Age Group, CY 2010–CY 2014

Age Group (Years)	CY 2010	CY 2011	CY 2012	CY 2013	CY 2014
0 – 18	0.9%	0.9%	0.9%	0.8%	0.7%
19 – 64	11.1%	10.7%	10.8%	11.1%	13.3%
Total	4.4%	4.4%	4.5%	4.6%	6.9%

Table 23 presents the regional distribution of HealthChoice participants with an SUD. Between CY 2010 and CY 2014, the majority of participants with an SUD lived in Baltimore City, followed by the Baltimore Suburban region.

Individuals were identified as having an SUD if they had a diagnosis code that met the HEDIS "*Identification of Alcohol and Other Drug Services*" measure, which includes the following ICD-9 diagnosis codes:291-292, 303-304, 305.0, 305.2-305.9, 535.2, 571.1; MS-DRG 894-897; and ICD-9-CM Procedure 94.6x with an inpatient code.



Table 23. Regional Distribution of HealthChoice Participants (Any Period of Enrollment) with an SUD, CY 2010–CY 2014

Region	CY 2010	CY 2011	CY 2012	CY 2013	CY 2014
Baltimore City	40.2%	38.1%	37.3%	36.7%	35.2%
Baltimore Suburban	26.1%	26.8%	27.0%	27.3%	28.5%
Eastern Shore	11.8%	11.8%	11.9%	12.2%	11.7%
Southern Maryland	4.2%	5.0%	4.8%	5.1%	5.1%
Washington Suburban	11.8%	12.1%	12.5%	11.9%	13.3%
Western Maryland	6.1%	6.3%	6.5%	6.7%	6.1%
Total	100%	100%	100%	100%	100%
Number of Enrollees	36,854	39,574	42,063	44,103	85,715

DHMH also monitors the extent to which participants with an SUD access health care services. Table 24 shows the percentage of HealthChoice participants with an SUD who received an MCO physician visit and an MCO ED visit. Between CY 2010 and CY 2014, the percentage of participants with an MCO physician visit decreased by 1.6 percentage points, whereas the ED visit rate increased by 5.4 percentage points.

Table 24. Service Utilization of HealthChoice Participants (Any Period of Enrollment) with an SUD, CY 2010–CY 2014

Year	HealthChoice Participants with an SUD	Percent with At Least 1 MCO Ambulatory Care Visit	Percent with an MCO ED visit
CY 2010	36,854	79.0%	52.8%
CY 2011	39,574	80.2%	61.0%
CY 2012	42,063	80.9%	61.2%
CY 2013	44,103	80.5%	61.7%
CY 2014	85,715	77.4%	58.2%

Table 25 shows the number and percentage of HealthChoice participants with an SUD and at least one methadone replacement therapy. Between CY 2010 and CY 2014, the percentage of participants with at least one methadone replacement therapy increased by 3.0 percentage points. This can be attributed to the ACA expansion of adults.



Table 25. Number and Percentage of HealthChoice Participants (Any Period of Enrollment) with an SUD and at Least One Methadone Replacement Therapy, CY 2010–CY 2014

Year	HealthChoice Participants with an SUD	Number of Participants with an SUD and Methadone Replacement Therapy	Percentage of Total Participants with an SUD
CY 2010	36,854	7,837	21.3%
CY 2011	39,574	8,787	22.2%
CY 2012	42,063	9,520	22.6%
CY 2013	44,103	10,365	23.5%
CY 2014	85,715	20,815	24.3%

# **Behavioral Health Integration**

Table 26 presents the number and percentage of HealthChoice participants with a dual diagnosis of both MHD and SUD, MHD only, SUD only, or none of these diagnoses. The percentage of HealthChoice participants with a dual diagnosis of MHD and SUD increased by 1.1 percentage points, from 2.8 percent in CY 2010 to 3.9 percent in CY 2014.

Table 26. Number and Percentage of HealthChoice Participants (Any Period of Enrollment) with a Dual Diagnosis of MHD and SUD, CY 2010 - CY 2014

Year	Dual Diagnosis (MHD and SUD)	MHD Only	SUD Only	None	Total
CY 2010	23,527 (2.8%)	156,431 (18.8%)	13,327 (1.6%)	639,063 (76.8%)	832,348 (100%)
CY 2011	24,453 (2.7%)	171,832(19.2%)	15,121(1.7%)	681,571 (76.3%)	892,977 (100%)
CY 2012	26,049 (2.8%)	185,174(19.9%)	16,014 (1.7%)	703,410 (75.6%)	930,647 (100%)
CY 2013	27,127 (2.8%)	193,429 (20.1%)	16,976 (1.8%)	724,065 (75.3%)	961,597 (100%)
CY 2014	48,604 (3.9%)	241,420 (19.3%)	37,111 (3.0%)	923,888 (73.9%)	1,251,023 (100%)



# Access to Care for Children in Foster Care

This section of the report examines service utilization for children in foster care with any period of enrollment in HealthChoice during the calendar year. This section also compares service utilization for children in foster care with other HealthChoice children. Unless otherwise specified, all of the measures presented include children aged 0 through 21 years and include their use of FFS and MCO services.

Table 27 displays the percentage of HealthChoice children enrolled in foster care by age group for CY 2010 and CY 2014. Across the evaluation period, older children are more commonly enrolled in foster care. In CY 2014, children aged 15 to 18 years made up the largest portion of HealthChoice children in foster care at 25.2 percent of the total.

Table 27. Percentage of HealthChoice Children in Foster Care by Age Group, CY 2010 and 2014

C. 1010 dild 1017								
	CY 20	10	CY 20	14				
Age Group	Number of	Percentage of	Number of	Percentage of				
(Years)	Participants	Total	Participants	Total				
0 to <1	249	2.1%	200	2.1%				
1–2	830	7.1%	726	7.6%				
3–5	1,236	10.6%	932	9.8%				
6–9	1,411	12.1%	1,408	14.8%				
10–14	2,328	19.9%	1,833	19.3%				
15–18	3,319	28.4%	2,399	25.2%				
19–21	2,329	19.9%	2,015	21.2%				
Total	11,704	100%	9,513	100%				

<sup>&</sup>lt;sup>28</sup> Children in the subsidized adoption program are *excluded* from the definition of foster children. Rather, these enrollees are included as "other children enrolled in HealthChoice."



Figure 10 displays the percentage of children in foster care who had at least one ambulatory care visit in CY 2010 and CY 2014 by age group. From CY 2010 to CY 2014, the overall rate of ambulatory care visits increased by 1.5 percentage points. As is true across the general HealthChoice population, younger children in foster care were more likely than older children to receive ambulatory care services.

Figure 10. Percentage of HealthChoice Children in Foster Care Receiving at Least One Ambulatory Care Visit by Age Group, CY 2010 and CY 2014

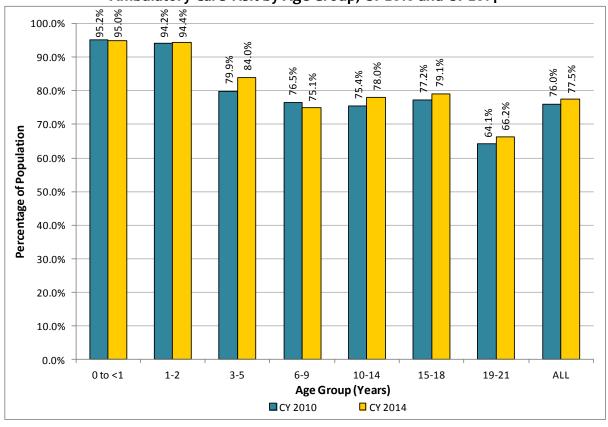
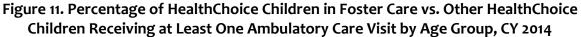


Figure 11 compares the ambulatory care visit rate for children in foster care with the rate for other children enrolled in HealthChoice in CY 2014. Overall, children in foster care accessed ambulatory care at a slightly lower rate than other children in HealthChoice. However, children in foster care in several age categories accessed ambulatory care services at a higher rate than other children in the HealthChoice program.



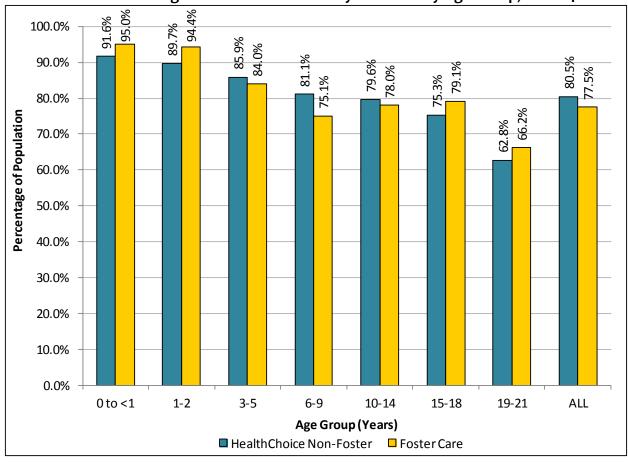


Figure 12 displays the percentage of children in foster care receiving at least one MCO outpatient ED visit<sup>29</sup> in CY 2010 and CY 2014 by age group. The overall rate increased by1.3 percentage points during the evaluation period. Children aged 0 to less than 1 year and 1 to 2 years had the highest rates of ED utilization in CY 2014. Children aged 0 to less than 1 year experienced an increase of 10.7 percentage points in ED utilization during the evaluation period. Due to the small number of children within the 0 to less than 1 year age group, these results should be interpreted with caution.

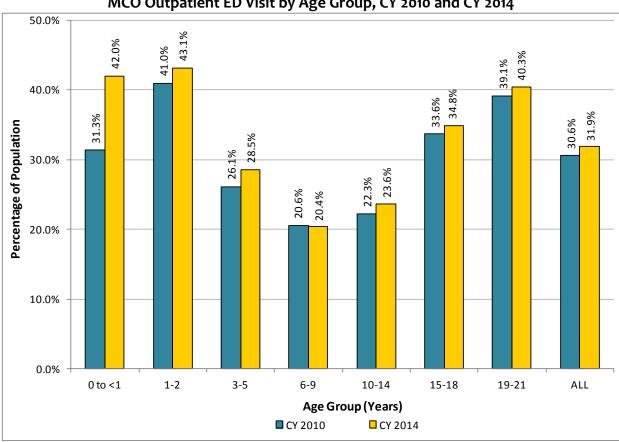


Figure 12. Percentage of HealthChoice Children in Foster Care Receiving at Least One MCO Outpatient ED Visit by Age Group, CY 2010 and CY 2014

<sup>&</sup>lt;sup>29</sup> MCO outpatient ED visits include ED visits that were seen and discharged on an outpatient basis. This measure does not include ED visits that lead to an inpatient admission or those paid through the FFS system.



Figure 13 compares the MCO outpatient ED visit rate in CY 2014 for children in foster care to the rate for other children enrolled in HealthChoice. Overall, children in foster care accessed the ED at a higher rate than other children in the HealthChoice program.

Figure 13. Percentage of HealthChoice Children in Foster Care vs. Other HealthChoice Children Receiving at Least One MCO Outpatient ED Visit by Age Group, CY 2014

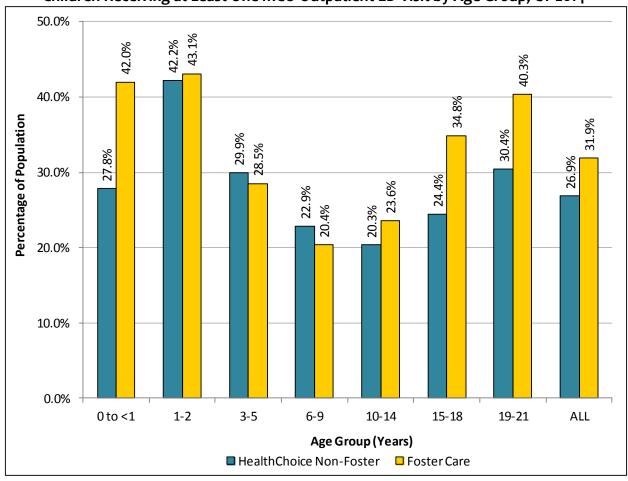
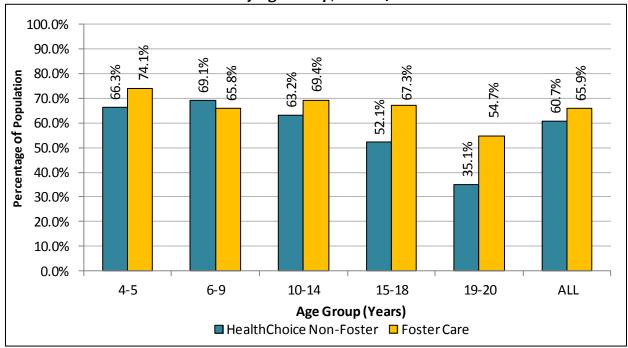


Figure 14 compares the dental utilization rate for foster care children aged 4 to 20 years enrolled in HealthChoice with the rate for other children in HealthChoice in CY 2014. Overall, children in foster care had a higher dental visit rate (65.9 percent) than other HealthChoice children (60.7 percent). The largest differences between the two populations were observed in the older age groups. The dental visit rate was 67.3 percent for children in foster care aged 15 to 18 years and 52.1 percent for non-foster care children—a difference of 15.2 percentage points. For children aged 19 to 20 years, those in foster care had a dental visit rate that was 19.6 percentage points higher than other HealthChoice participants.

Figure 14. Percentage of HealthChoice Children Aged 4-20 Years (Any Period of Enrollment) in Foster Care vs. Other HealthChoice Children Receiving at Least One Dental Visit, by Age Group, CY 2014



# Reproductive Health

This section of the report focuses on the reproductive health services provided under HealthChoice. HEDIS prenatal measures are presented first, followed by a discussion of the Family Planning Program.

DHMH and the HealthChoice MCOs engage pregnant women in care through individualized outreach, community events, and prenatal case management. HealthChoice enrollees identified as pregnant receive informational materials on how to access care, the dental benefit for pregnant women, and other resources, such as the Text4Baby program. DHMH also operates a dedicated HelpLine for pregnant women. In addition to having their questions answered, individuals who



contact the HelpLine are referred to their local Administrative Care Coordination Unit (ACCU). A primary goal of the ACCUs is to improve birth outcomes for Medicaid eligible women and reduce infant mortality by helping women to access necessary and appropriate medical care and navigate the HealthChoice system. The ACCUs also link recipients to other services, including specialty care and dental services. ACCU staff members can also assist Medical Assistance members who have unresolved billing issues.

#### **Timeliness of Prenatal Care**

HEDIS measures the timeliness of prenatal care and the frequency of ongoing prenatal care to determine the adequacy of care for pregnant women. The earlier a woman receives prenatal care, the more likely it is to identify and manage health conditions that could affect her health and/or the health of the newborn.

The HEDIS timeliness of prenatal care measure assesses the percentage of deliveries for which the mother received a prenatal care visit in the first trimester *or* within 42 days of HealthChoice enrollment. Table 28 presents HealthChoice performance on this measure for CY 2010 though CY 2014 (HealthcareData Company, LLC, 2015). Timeliness of prenatal care decreased by 4.1 percentage points during the evaluation period, from 86.9 percent in CY 2010 to 82.8 percent in CY 2014. For the first three years of the evaluation period, HealthChoice outperformed the national HEDIS mean, but in CY 2013, the HealthChoice rate dropped below the national rate. This decline is explained in part by the inclusion of a new HealthChoice MCO with a score of 52.2 percent into the average rate calculation. Excluding the new MCO, the CY 2013 HealthChoice rate was 86.4 percent. For CY 2014, excluding the newer MCOs would have increased the HealthChoice rate to 84.1 percent. Even with the newer MCOs, the overall HealthChoice rate increased between CY 2013 and CY 2014 and was above the national HEDIS mean in CY 2014.



Table 28. HEDIS Timeliness of Prenatal Care, HealthChoice Compared with the National HEDIS Mean, CY 2010–CY 2014\*

	CY 2010	CY 2011	CY 2012	CY 2013	CY 2014
Percentage of Deliveries in which the Mother Received a Prenatal Care Visit in the 1 <sup>st</sup> Trimester or within 42 days of HealthChoice Enrollment	86.9%	86.3%	85.8%	81.5%	82.8%
National HEDIS Mean	+	+	+	-	+

<sup>\*</sup>The HealthChoice averages in CY 2013 and CY 2014 were impacted by the inclusion of HEDIS rates from newer MCOs into the calculation.

## **Frequency of Ongoing Prenatal Care**

The frequency of ongoing prenatal care measure assesses the percentage of recommended<sup>30</sup> prenatal visits received. DHMH uses this measure to assess MCO performance in providing appropriate prenatal care. The measure calculates the percentage of deliveries that received the expected number of prenatal visits. This measure accounts for gestational age and time of enrollment, and women must be continuously enrolled 43 days prior to and 56 days after delivery.

The first aspect of this measure assesses the percentage of women who received more than 80 percent of expected visits; therefore, a higher score is preferable. Table 29 shows that this rate decreased by 9.3 percentage points during the evaluation period, from 74.2 percent in CY 2010 to 64.9 percent in CY 2014 (HealthcareData Company, LLC, 2015). The second aspect of this measure assesses the percentage of women who received less than 21 percent of expected visits; therefore, a lower score is preferable. The rate for this measure increased by 4.5 percentage points, from 3.7 percent in CY 2010 to 8.2 percent in CY 2014. In sum, Maryland consistently outperformed the national HEDIS means for both aspects of this measure, although performance over the evaluation period declined.

The declines in both CY 2013 and CY 2014 performance are attributable to the inclusion of new MCOs into the average rate calculation. In CY 2013, for the first aspect of the measure, the new MCO scored 21.7 percent, while the other MCOs scored between 70.6 and 78.8 percent. Excluding the new MCO, the CY 2013 HealthChoice rate was 73.4 percent. For the second part of the measure, the new MCO scored 37.0 percent, while the other MCOs had rates between 2.2 and 8.2 percent. Excluding the new MCO, the CY 2013 HealthChoice rate was 5.1 percent.

In CY 2014, for the first aspect of the measure, the newer HealthChoice MCOs scored 56.9 percent and 55.0 percent, while the other MCOs scored between 61.7 and 74.5 percent.

<sup>&</sup>lt;sup>30</sup> The American College of Obstetricians and Gynecologists recommends a visit once every 4 weeks during the first 28 weeks of pregnancy, once every 2 to 3 weeks during the next 7 weeks, and weekly for the remainder of the pregnancy, for a total of about 13 to 15 visits.



Excluding the newer MCOs, the CY 2014 HealthChoice rate was 67.9 percent. For the second part of the measure, the new MCOs scored 7.7 percent and 17.4 percent, while the other MCOs had rates between 4.5 and 9.3 percent. Excluding the newer MCOs, the CY 2014 HealthChoice rate was 6.8 percent.

Table 29. Percentage of HealthChoice Deliveries Receiving the Expected Number of Prenatal Visits (≥ 81 Percent or < 21 Percent of Recommended Visits),

Compared with the National HEDIS Mean, CY 2010–CY 2014\*

	CY	/ 2010	CY 2011		CY 2012		CY 2013		CY 2014	
	MD	National	MD	National	MD	National	MD	National	MD	National
Greater than or equal to 81% of Expected Prenatal Visits	74.2%	+	74.4%	+	71.5%	+	66.0%	+	64.9%	+
Less than 21% of Expected Prenatal Visits**	3.7%	+	4.9%	+	6.3%	+	9.7%	+	8.2%	+

<sup>\*</sup> The HealthChoice averages in CY 2014 were impacted by the inclusion of HEDIS rates from newer MCOs into the calculation.

# **The Family Planning Program**

The Family Planning Program provides family planning office visits to women who are not eligible for Medicaid. These services include physical examinations, certain laboratory services, family planning supplies, reproductive education, counseling and referral, and permanent sterilization services. Previously, the Family Planning Program only enrolled postpartum women. Eligibility for the program, however, was expanded in 2012 to cover women younger than 51 years of age with household income below 200 percent of the FPL.

Tables 30 and 31 present the number of Medicaid participants in the Family Planning Program and the percentage of Family Planning participants who received at least one service between CY 2010 and CY 2014.<sup>31</sup> These data are presented for women who were enrolled in Family Planning for any period of time during the calendar year and women who were enrolled continuously for 12 months.

During the evaluation period, the number of women with any period of enrollment in the Family Planning Program decreased by 14.9 percent, from 25,908 participants in CY 2010 to 22,042 participants in CY 2014 (Table 30). This decline in enrollment may be partially attributed to the ACA expansion, which provided full Medicaid coverage to all individuals (including parents)

<sup>\*\*</sup> A lower rate points to better performance. A "+" means that the rate is below the National HEDIS Mean.

<sup>&</sup>lt;sup>31</sup> Only FFS claims were used in the analysis.

with income up to 138 percent of the FPL. This expansion increased the number of women who were eligible for full Medicaid after delivery.

Table 30 shows that the percentage of women with any period of enrollment in the program who utilized at least one family planning service ranged between 24.0 percent and 36.2 percent from CY 2010 to CY 2014. As Table 31 displays, the percentage of women enrolled in the program for the entire 12 months with at least one service decreased from 55.5 percent in CY 2010 to 34.2 percent in CY 2014.

Table 30. Percentage of Family Planning Participants (Any Period of Enrollment) with at Least One Corresponding Service, CY 2010–CY 2014<sup>32</sup>

		<u> </u>			
	CY 2010	CY 2011	CY 2012	CY 2013	CY 2014
Number of Participants	25,908	21,056	24,883	26,105	22,042
Number with at least 1 Service	6,209	5,282	9,019	8,954	6,305
Percentage with at least 1 Service	24.0%	25.1%	36.2%	34.3%	28.6%

Table 31. Percentage of Family Planning Participants (12-Month Enrollment) with at Least One Corresponding Service, CY 2010–CY 2014<sup>32</sup>

		,			
	CY 2010	CY 2011	CY 2012	CY 2013	CY 2014
Number of Participants	1,885	1,736	2,520	4,147	6,032
Number with at least 1 Service	1,047	930	1,352	2,252	2,061
Percentage with at least 1 Service	55.5%	53.6%	53.7%	54.3%	34.2%

# Services for Individuals with HIV/AIDS

DHMH continuously monitors service utilization for HealthChoice participants with HIV/AIDS. This section of the report presents the enrollment distribution of HealthChoice participants with HIV/AIDS by age group and race/ethnicity, as well as measures of ambulatory care service utilization, outpatient ED visits, CD4 testing, and viral load testing. CD4 testing is used to determine how well the immune system is functioning in individuals diagnosed with HIV. The viral load test monitors the progression of the HIV infection by measuring the level of immunodeficiency virus in the blood.

Table 32 presents the percentage of participants with HIV/AIDS by age group and race/ethnicity for CY 2010 and CY 2014. Across the evaluation period, the distribution of enrollees by age

<sup>&</sup>lt;sup>32</sup> The methodology for calculating this measure was revised for this year's evaluation. Revisions include counting only services provided when a participant was enrolled in the Family Planning program. Previous evaluations included all services provided to an enrollee during the entire year, regardless whether the participant was enrolled in the Family Planning program or another Medicaid program.

group has remained consistent. Black and White participants composed nearly 95 percent of the HIV/AIDS population.

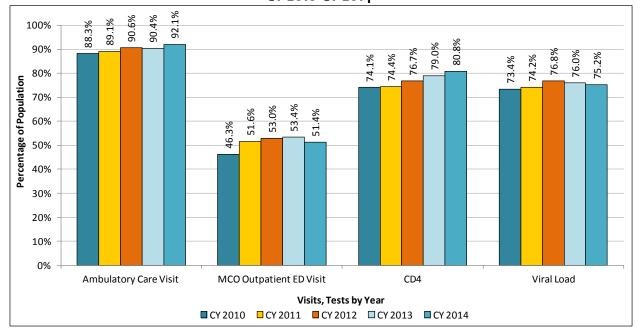
Table 32. Distribution of HealthChoice Participants (Any Period of Enrollment) with HIV/AIDS by Age Group and Race/Ethnicity. CY 2010 and CY 2014

with the physical by the droup and trace/Ethinetey, C1 2010 and C1 2014							
	CY 2010		CY 2014				
Age Group (Years)	Number of Participants	Percentage of Total	Number of Participants	Percentage of Total			
0–18	299	5.6%	232	4.0%			
19–39	1,442	27.1%	1,629	28.1%			
40–64	3,585	67.3%	3,930	67.9%			
Total	5,326	100%	5,791	100%			
	Number of	Percentage of	Number of	Percentage of			
Race/Ethnicity	Participants	Total	Participants	Total			
Asian	16	0.3%	26	0.4%			
Black	4,528	85.0%	4,920	85.0%			
White	557	10.5%	572	9.9%			
Hispanic	50	0.9%	71	1.2%			
Other	175	3.3%	202	3.5%			
Total	5,326	100%	5,791	100%			

Figure 15 shows service utilization by participants with HIV/AIDS from CY 2010 through CY 2014. Overall, the percentage of participants who received an ambulatory care visit increased by 3.8 percentage points during the evaluation period. The percentage of participants with an MCO outpatient ED visit also increased by 5.1 percentage points from CY 2010 through CY 2014. Figure 15 also presents the percentage of individuals with HIV/AIDS who received CD4 testing from CY 2010 to CY 2014. Through the evaluation period, the total number of participants who received CD4 testing increased by 6.7 percentage points. Finally, Figure 15 displays the percentage of individuals with HIV/AIDS who received viral load testing during the evaluation period. Overall, participants had an increase in utilization, with an increase from 73.4 percent in CY 2010 to 75.2 percent in CY 2014.



Figure 15. Percentage of HealthChoice Participants with HIV/AIDS who Received an Ambulatory Care Visit, MCO Outpatient ED Visit, CD4 Testing, and Viral Load Testing, CY 2010-CY 2014



# **REM Program**

The REM program provides case management services to Medicaid participants who have one of a specified list of rare and expensive medical conditions and require sub-specialty care. To be enrolled in REM, an individual must be eligible for HealthChoice, have a qualifying diagnosis, and be within the age limit for that diagnosis. Examples of qualifying diagnoses include cystic fibrosis, quadriplegia, muscular dystrophy, chronic renal failure, and spina bifida. REM participants do not receive services through an MCO. The REM program provides the standard FFS Medicaid benefit package and some expanded benefits, such as medically necessary private duty nursing, shift home health aide, and adult dental services. This section of the report presents data on REM enrollment and service utilization.

#### **REM Enrollment**

Table 33 presents REM enrollment by age group and sex for CY 2010 and CY 2014. In both years, the majority of REM participants were male children aged 0 through 18 years. The gender distribution differs from the general HealthChoice population, which has a higher percentage of females (approximately 54.7 percent in CY 2014).



Table 33. REM Enrollment by Age Group and Sex, CY 2010 and CY 2014

	CY 2010		CY 2014		
Age Group (Years)	Number of Enrollees	Percent of Total	Number of Enrollees	Percent of Total	
0-18	3,127	72.5%	3,226	68.1%	
18 and over	1,188	27.5%	1,509	31.9%	
Total	4,315	100%	4,735	100%	
Sex/Gender	Number of Enrollees	Percent of Total	Number of Enrollees	Percent of Total	
Female	1,918	44.4%	2,063	43.6%	
Male	2,397	55.6%	2,672	56.4%	
Total	4,315	100%	4,735	100%	

#### **REM Service Utilization**

Figure 16 presents the percentage of REM participants who received at least one dental, inpatient, ambulatory care, and FFS outpatient ED visit between CY 2010 and CY 2014. The dental, inpatient, and ambulatory care visit measures serve as indicators of access to care. The percentage of participants with a dental visit increased markedly during the evaluation period, from 44.5 percent in CY 2010 to 51.2 percent in CY 2014. The utilization rate for ambulatory care and FFS outpatient ED visits increased during the evaluation period, by 1.0 percentage points and 9.0 percentage points respectively. However, the CY 2010 rate for FFS outpatient ED visits (33.8 percent) is likely an outlier, as the rate remained between 40.9 and 42.8 percent from CY 2011 through CY 2014. The rate of REM enrollees who had an inpatient visit declined by 0.7 percentage points between CY 2010 and CY 2014.

<sup>&</sup>lt;sup>33</sup> The analysis includes participants who were in the REM program for any period during the calendar year and received FFS dental, inpatient, ambulatory care, and outpatient ED services. Inpatient service includes services performed in acute, chronic, hospice, and rehabilitation facilities.



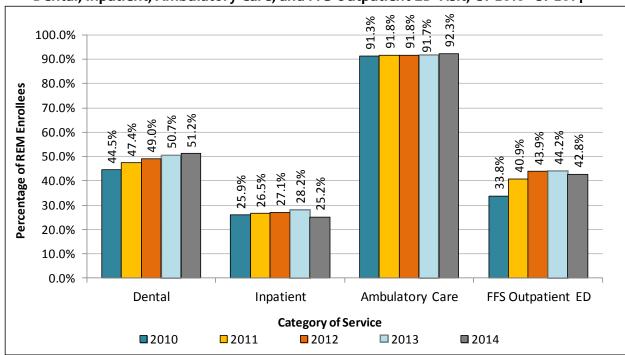


Figure 16. Percentage of REM Participants (Any Period of Enrollment) with at Least One Dental, Inpatient, Ambulatory Care, and FFS Outpatient ED Visit, CY 2010–CY 2014<sup>34</sup>

# Racial/Ethnic Disparities

Racial/ethnic disparities in health care are nationally recognized challenges. DHMH is committed to improving health services utilization among racial/ethnic groups through its Managing-for-Results (MFR) program. MFR is a strategic planning and performance measurement process used to improve government programs. The DHMH Office of Minority Health and Health Disparities uses MFR to target goals in reducing racial/ethnic disparities. This section of the report presents enrollment trends among racial/ethnic groups and assesses disparities within several measures of service utilization.

In this section, please note that there was a substantial change to the quality of the race/ethnicity information beginning with CY 2014. The race/ethnicity questions on the Medicaid eligibility application were made optional in Medicaid's new eligibility system. As a result, the number of individuals reporting their race/ethnicity decreased.

<sup>&</sup>lt;sup>34</sup> Data for ambulatory care were revised and updated across the entire measurement period to include visits related to mental health disorders and substance use disorders. Data for inpatient utilization were also updated across the measurement period to account for errors in last year's HealthChoice Evaluation.

#### **Enrollment**

Table 34 displays HealthChoice enrollment by race/ethnicity. Total enrollment increased within each racial/ethnic group between CY 2010 and CY 2014. However, this growth did not occur uniformly across all categories. The number of participants enrolled in HealthChoice who were Black or Hispanic increased by 39.0 percent and 32.0 percent, respectively. In terms of the racial composition within HealthChoice, the percentage of Black participants decreased from 50.4 percent in CY 2010 to 46.6 percent in CY 2014, whereas the percentage of White participants increased by less than one percentage point. This change may in part be due to the fact that race/ethnicity questions on the Medicaid eligibility application were made optional in Medicaid's new eligibility system.

Table 34. HealthChoice Enrollment by Race/Ethnicity, CY 2010 and CY 2014

7.	C	Y 2010	CY 2014		
Race/Ethnicity	Number of Enrollees	Percentage of Total Race/Ethnicity	Number of Enrollees	Percentage of Total Race/Ethnicity	
Black	419,641	50.4%	583,288	46.6%	
White	244,367	29.4%	370,965	29.7%	
Hispanic	98,778	11.9%	130,377	10.4%	
Asian	25,821	3.1%	51,179	4.1%	
Other	43,680	5.2%	115,214	9.2%	
Total	832,287	100%	1,251,023	100%	

#### **Ambulatory Care Visits**

Figure 17 shows the percentage of children aged 0 through 20 years who received at least one ambulatory care visit in CY 2010 and CY 2014 by race/ethnicity. The rate of ambulatory care visits among this age group increased for all races/ethnicities throughout the evaluation period. Hispanic participants had the highest rate in both CY 2010 (87.4 percent) and CY 2014 (88.9 percent), and Black participants had the lowest rate across the evaluation period. The ambulatory care visit rate among Asian participants increased slightly across the evaluation period, from 80.6 percent in CY 2010 to 81.6 percent in CY 2014.



Figure 17. Percentage of HealthChoice Participants Aged 0–20 Years Receiving an Ambulatory Care Visit by Race/Ethnicity, CY 2010 and CY 2014

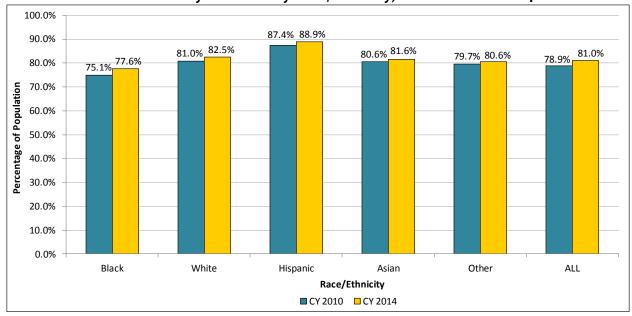


Figure 18 presents the percentage of adults aged 21 through 64 years who received at least one ambulatory care visit in CY 2010 and CY 2014 by race/ethnicity. The rate of Hispanic adults enrolled in HealthChoice who received an ambulatory care visit increased by 1.4 percentage points. All other groups experienced slight decreases in ambulatory care utilization during the evaluation period. Asian participants experienced the greatest decrease during the evaluation (4.5 percentage points).

100.0% 90.0% 77.3% 7<u>4.9</u>% 75.0%\_76.4% 80.0% 76.3% <u>74.6%</u> 72.6% 73.0% 71.4% 69.1% 71.8% Percentage of Population 70.0% 60.0% 50.0% 40.0% 30.0% 20.0% 10.0% 0.0% Black White Other ALL Hispanic Asian Race/Ethnicity ■ CY 2010 □ CY 2014

Figure 18. Percentage of HealthChoice Participants Aged 21–64 Years Receiving an Ambulatory Care Visit by Race/Ethnicity, CY 2010 and CY 2014

#### **ED Visits**

Figure 19 displays the percentage of HealthChoice participants aged 0 through 64 years who had at least one ED visit by race/ethnicity in CY 2010 and CY 2014. Although overall rates did not change during the time period, Black participants continued to have the highest ED visit rate, which increased from 32.9 percent in CY 2010 to 34.2 percent in CY 2014. ED use for White, Asian, and Other participants experienced small decreases during the evaluation period. Asian participants continued to have the lowest rate of ED utilization across the measurement period.

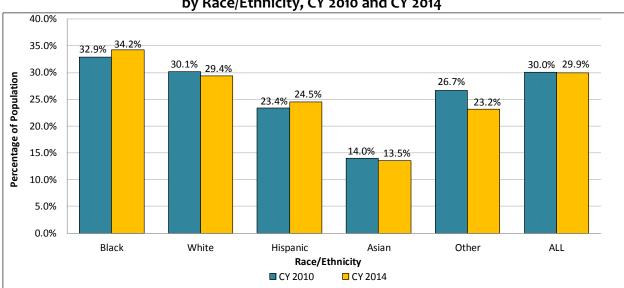


Figure 19. Percentage of HealthChoice Participants Aged 0–64 Receiving an ED Visit by Race/Ethnicity, CY 2010 and CY 2014

# **Section IV Summary**

This section of the report provided an overview of several special HealthChoice initiatives and programs. Some of the highlights include the following:

- The dental service utilization rate among children aged 4 to 20 years increased by 3.6 percentage points between CY 2010 and CY 2014.
- The percentage of participants with an MHD ranged between 21.6 and 23.2 percent between CY 2010 and CY 2014. Due to the influx of ACA adults, the percentage of participants with an SUD ranged between 4.4 and 6.9 percent during the same time period. HealthChoice participants with an SUD had higher rates of MCO ED visits than the population with an MHD, while those with an MHD had higher rates of MCO ambulatory care visits.



- In CY 2014, children in foster care had a higher rate of dental care utilization, a lower rate of ambulatory care service utilization, and a slightly higher rate of MCO outpatient ED visits than other children in HealthChoice.
- Measures of access to prenatal care services declined during the evaluation period. However, in CY 2014, Maryland outperformed the national HEDIS means for frequency of ongoing prenatal care measures, and Maryland equaled the national HEDIS means for timeliness of parental care.
- Enrollment in the Family Planning Program decreased by nearly 15 percent between CY 2010 and CY 2014 (using the methodology for any period of enrollment). During this time period, more postpartum women transitioned to full Medicaid coverage because of the ACA expansion.
- Ambulatory care service utilization, CD4 testing rates, and viral load testing rates improved for participants with HIV/AIDS during the evaluation period. ED utilization by this population also increased during the evaluation period.
- The REM program provides case management, medically necessary private duty nursing, and other expanded benefits to participants who have one of a specified list of rare and expensive medical conditions. In CY 2014, the majority of REM participants were children (68.1 percent) and male (56.4 percent).
- Regarding racial/ethnic disparities in access to care, Black children continue to have lower rates of ambulatory care visits than other children. Among the entire HealthChoice population, Blacks also have the highest ED utilization rates. DHMH will continue to monitor these measures to reduce disparities between racial/ethnic groups.



## **Section V. ACA Medicaid Expansion Population**

In July 2006, the PAC program offered limited benefits to childless adults aged 19 years and older who were not eligible for Medicare and Medicaid and whose income was less than or equal to 116 percent of the FPL. Under the optional Medicaid expansion in the ACA, states could expand Medicaid eligibility for adults under the age of 65 years with income up to 138 percent of the FPL. Maryland elected to expand its Medicaid eligibility, which resulted in the PAC program transitioning into a categorically-eligible Medicaid population on January 1, 2014. The ACA Medicaid expansion population consists of three different coverage groups:

- 1. Former PAC participants
- 2. Childless adults (not previously enrolled in PAC)<sup>35</sup>
- 3. Parents and caretaker relatives

This section presents demographic and service utilization measures for the different categories of the ACA Medicaid expansion population. To evaluate these participants, we include their FFS and MCO experience in the analysis because system challenges during the first year of the expansion resulted in participants staying in FFS for longer periods of time. Additionally, the ACA expansion participants, many who were gaining Medicaid coverage for the first time, may have had limited health literacy resulting in reduced access to care until participants became more familiar with accessing care through Medicaid.

## **ACA Medicaid Expansion Population Demographics**

The Maryland Medicaid program enrolled 271,377 adults through the ACA Medicaid expansion in CY 2014. The majority (59.5 percent) of the participants joining the program were childless adults (161,408 out of the 271,377 ACA expansion participants). About 34.2 percent of the ACA expansion participants (92,937 participants) were previously enrolled in the PAC program, while 6.3 percent (17,032 participants) fell in the parent and caretaker relative category.

Table 35 compares key demographic and enrollment characteristics of the expansion population, including the number of months enrolled in Medicaid, race/ethnicity, sex, region, and age group. Just over 42 percent of ACA Medicaid expansion participants were enrolled for the entire year. Participants who were enrolled in Medicaid for less than three months may have begun their enrollment in the latter part of CY 2014. Black and White participants made up approximately 81 percent of the overall expansion population. Male participants composed 53.5 percent of the population. The majority of participants (77.5 percent) resided in Baltimore City and its

<sup>&</sup>lt;sup>35</sup> Though these individuals may have had prior enrollment in PAC, they were not enrolled in PAC as of December 2013. Only participants enrolled in PAC in December 2013 were automatically transferred into a Medicaid expansion coverage group.

surrounding suburbs, as well as the Washington suburban region. At 39.8 percent, those aged 19 to 34 years made up the largest proportion of participants.

Table 35. ACA Medicaid Expansion Population Demographics, Aged 19-64 Years, Any Period of Enrollment, CY 2014

	Any Period of Enrollment, CY 2014								
	Former PAC		Childless Adults		Parents and Caretaker Relatives				
							Total		
	# of	% of	# of	% of	# of	% of	# of	% of	
	Enrollees	Total	Enrollees	Total	Enrollees	Total	Enrollees	Total	
			I	<mark>ber Month</mark>	l .				
1	109	0.1%	14,925	9.2%	1,073	6.3%	16,107	5.9%	
2	75	0.1%	9,084	5.6%	580	3.4%	9,739	3.6%	
3	98	0.1%	6,619	4.1%	399	2.3%	7,116	2.6%	
4	100	0.1%	7,422	4.6%	638	3.7%	8,160	3.0%	
5	64	0.1%	6,252	3.9%	548	3.2%	6,864	2.5%	
6	216	0.2%	6,039	3.7%	544	3.2%	6,799	2.5%	
7	5,194	5.6%	6,220	3.9%	529	3.1%	11,943	4.4%	
8	6,142	6.6%	6,498	4.0%	439	2.6%	13,079	4.8%	
9	6,148	6.6%	11,383	7.1%	691	4.1%	18,222	6.7%	
10	8,057	8.7%	29,493	18.3%	1,094	6.4%	38,644	14.2%	
11	6,454	6.9%	13,211	8.2%	775	4.6%	20,440	7.5%	
12	60,280	64.9%	44,262	27.4%	9,722	57.1%	114,264	42.1%	
Total	92,937	100%	161,408	100%	17,032	100%	271,377	100%	
			,	Race	1				
Asian	2,214	2.4%	10,722	6.6%	1,363	8.0%	14,299	5.3%	
Black	48,547	52.2%	65,495	40.6%	6,512	38.2%	120,554	44.4%	
White	38,228	41.1%	55,202	34.2%	5,686	33.4%	99,116	36.5%	
Hispanic	1,570	1.7%	3,771	2.3%	1,721	10.1%	7,062	2.6%	
Other	2,378	2.6%	26,218	16.2%	1,750	10.3%	30,346	11.2%	
Total	92,937	100%	161,408	100%	17,032	100%	271,377	100%	
				Sex					
Female	39,262	42.2%	75,233	46.6%	11,591	68.1%	126,086	46.5%	
Male	53,675	57.8%	86,175	53.4%	5,441	31.9%	145,291	53.5%	
Total	92,937	100%	161,408	100%	17,032	100%	271,377	100%	
Region									
Baltimore City	30,278	32.6%	30,154	18.7%	1,932	11.3%	62,364	23.0%	



	Former PAC		Childless Adults		Parents and Caretaker Relatives		Total	
	# of Enrollees	% of Total	# of Enrollees	% of Total	# of Enrollees	% of Total	# of Enrollees	% of Total
Baltimore Suburban	25,086	27.0%	43,944	27.2%	5,158	30.3%	74,188	27.3%
Eastern Shore	10,176	10.9%	14,156	8.8%	1,780	10.5%	26,112	9.6%
Southern Maryland	4,884	5.3%	8,075	5.0%	896	5.3%	13,855	5.1%
Washington Suburban	14,779	15.9%	53,532	33.2%	5,585	32.8%	73,896	27.2%
Western Maryland	7,641	8.2%	11,323	7.0%	1,663	9.8%	20,627	7.6%
Out of State	93	0.1%	224	0.1%	18	0.1%	335	0.1%
Total	92,937	100%	161,408	100%	17,032	100%	271,377	100%
Age Group (Years)								
19–34	32,587	35.1%	67,823	42.0%	7,540	44.3%	107,950	39.8%
35–49	27,441	29.5%	37,163	23.0%	7,259	42.6%	71,863	26.5%
50–64	32,909	35.4%	56,422	35.0%	2,233	13.1%	91,564	33.7%
Total	92,937	100%	161,408	100%	17,032	100%	271,377	100%

## **ACA Medicaid Expansion Population Service Utilization**

This section compares service utilization between the three ACA Medicaid expansion coverage groups: former PAC participants, new childless adults, and parents and caretaker relatives. Table 36 presents inpatient admissions, ambulatory care visits, and outpatient ED visits for each of these coverage groups. Measures are presented for individuals with both any period of enrollment and 12 months of enrollment. The utilization rates for ACA Medicaid expansion participants with 12 months of enrollment may be a better measure for evaluation compared with the rates for those participants with any period of enrollment (e.g., one day or month of coverage). These participants with any period of enrollment, who are new to full-benefit Medicaid coverage, may require more time to understand their benefits and how to access services. Key findings from the table include the following:

 Overall, 9.1 percent of ACA Medicaid expansion participants with any period of enrollment had an inpatient admission in CY 2014. The rate increases to 11.6 percent for those enrolled for the entire year.



- About 61.2 percent of ACA Medicaid expansion participants with any period of enrollment had an ambulatory care visit in CY 2014. The rate increases to 80.6 percent for those enrolled for the entire year.
- Approximately 31.1 percent of ACA Medicaid expansion participants with any period of enrollment had an ED visit in CY 2014. This rate increases to 39.3 percent for those enrolled for the entire year. High ED utilization rates may be attributable in part due to the fact that new Medicaid participants may have had more limited health literacy and former PAC enrollees were unfamiliar with having access to a full benefits package that includes specialty care.
- Former PAC participants had the highest rate of service utilization across all service categories and periods of enrollment. Parents and caretaker relatives had the lowest rate of inpatient admissions for both enrollment periods, and childless adults had the lowest rate of ambulatory care and ED visits for both enrollment periods.

Table 36. Comparison of Service Utilization between ACA Medicaid Expansion Coverage Groups, Aged 19-64 Years, CY 2014

Groups, Aged 19-64 Years, CY 2014								
	Any Period of Enrollment			12 Months of Enrollment				
Coverage Group	Number of Users	Total Enrollees	Percentage of Total	Number of Users	Total Enrollees	Percentage of Total		
Inpatient Admissions								
Former PAC 10,363 92,937 11.2% 7,917 60,280 13.19								
Childless Adults	13,410	161,408	8.3%	4,568	44,262	10.3%		
Parents & Caretakers	1,016	17,032	6.0%	772	9,722	7.9%		
Total	24,789	271,377	9.1%	13,257	114,264	11.6%		
Ambulatory Care Visits								
Former PAC	67,111	92,937	72.2%	50,997	60,280	84.6%		
Childless Adults	87,671	161,408	54.3%	33,199	44,262	75.0%		
Parents & Caretakers	11,223	17,032	65.9%	7,955	9,722	81.8%		
Total	166,005	271,377	61.2%	92,151	114,264	80.6%		
ED Visits								
Former PAC	38,419	92,937	41.3%	27,271	60,280	45.2%		
Childless Adults	41,292	161,408	25.6%	14,311	44,262	32.3%		
Parents & Caretakers	4,571	17,032	26.8%	3,356	9,722	34.5%		
Total	84,282	271,377	31.1%	44,938	114,264	39.3%		

# ACA Medicaid Expansion Population with Mental Health and Substance Use Disorders

This section presents the rate of MHDs and SUDs among ACA Medicaid expansion coverage groups. Table 37 shows the rate of MHDs, SUDs, and dual diagnoses of MHDs and SUDs



among ACA Medicaid expansion coverage groups, aged 19 to 64 years, for both any period of enrollment and 12 months of enrollment. Former PAC participants made up the largest percentage of ACA Medicaid expansion participants with an MHD, SUD, or dual diagnosis for both enrollment periods. Parents and caretaker relatives had the lowest percentage of participants with an MHD, SUD, or dual diagnosis for both enrollment periods.

Table 37. Comparison of ACA Medicaid Expansion Coverage Groups, Aged 19-64 years, with a MHD, SUD, or Dual Diagnosis, Any Period of Enrollment, CY 2014

	Any Period of Enrollment			12 Months of Enrollment			
Coverage Group	Number of Users	Total Enrollees	Percentage of Total	Number of Users	Total Enrollees	Percentage of Total	
MHD Only							
Former PAC	17,933	92,937	19.3%	13,651	60,280	22.6%	
Childless Adults	20,012	161,408	12.4%	7,845	44,262	17.7%	
Parents & Caretakers	2,159	17,032	12.7%	1,651	9,722	17.0%	
Total	40,104	271,377	14.8%	23,147	114,264	20.3%	
SUD Only							
Former PAC	11,374	92,937	12.2%	7,698	60,280	12.8%	
Childless Adults	8,202	161,408	5.1%	2,100	44,262	4.7%	
Parents & Caretakers	342	17,032	2.0%	239	9,722	2.5%	
Total	19,918	271,377	7.3%	10,037	114,264	8.8%	
		<b>Dual Diagnosis</b>	(MH and SUD	)			
Former PAC	14,417	92,937	15.5%	11,115	60,280	18.4%	
Childless Adults	7,787	161,408	4.8%	2,987	44,262	6.7%	
Parents & Caretakers	252	17,032	1.5%	195	9,722	2.0%	
Total	22,456	271,377	8.3%	14,297	114,264	12.5%	
None							
Former PAC	49,213	92,937	53.0%	27,816	60,280	46.1%	
Childless Adults	125,407	161,408	77.7%	31,330	44,262	70.8%	
Parents & Caretakers	14,279	17,032	83.8%	7,637	9,722	78.6%	
Total	188,899	271,377	69.6%	66,783	114,264	58.4%	

# Section V Summary

This section of the report examined demographic and utilization measures for the ACA Medicaid expansion population. More than 50 percent of this population resided in the Baltimore metro region. In terms of utilization, former PAC participants had the highest rates of inpatient admissions, ambulatory care visits, and ED visits compared to childless adults and parents and caretaker relatives. Former PAC participants also made up the largest percentage of ACA Medicaid expansion adults with a MHD, SUD, and a dual diagnosis.



#### Conclusion

HealthChoice is a mature managed care program that provided services to over 17 percent of Marylanders, as of the end of CY 2014. The information presented in this evaluation provides strong evidence that HealthChoice has been successful in achieving its stated goals of improving coverage and access to care, providing a medical home to participants, and improving the quality of care.

Some of the successes achieved during this evaluation period include increasing the rate of breast cancer screenings, well-care visits for children aged 3 to 6 years, and HbA1c testing among participants with diabetes. Among individuals with HIV/AIDS, ambulatory care service utilization, CD4 testing and viral load testing rates increased. The percentage of REM participants receiving a dental visit increased by 6.7 percentage points. The percentage of HealthChoice participants aged 18 to 64 years with at least one MCO inpatient admission has declined by 5.4 percentage points.

Recent developments will continue to affect HealthChoice in the coming years. Primarily, the ACA expansion of Medicaid eligibility that transitioned former PAC participants and enrolled previously uninsured individuals into HealthChoice has markedly increased enrollment in CY 2014. As these HealthChoice participants begin to understand and use their newly obtained full-benefit coverage, there will be an increase in the service utilization rate across the spectrum of somatic and behavioral health services. In addition, the State's chronic health home demonstration is currently underway. As of February 2016, DHMH approved 81 Health Home site applications. The Health Home sites include 63 psychiatric rehabilitation programs, 10 mobile treatment providers, and 8 opioid treatment programs.

As with any program, there are areas that need improvement to ensure that the growing number of participants have access to quality care. Some of these areas include reducing the number of ED visits by HealthChoice participants, improving access to prenatal care, and reducing racial/ethnic disparities. DHMH is committed to working with CMS and other stakeholders to identify and address necessary programmatic changes.



#### References

- American Academy of Pediatrics. (n.d.). *Medicaid state report*. Retrieved from <a href="http://www.aap.org/en-us/professional-resources/Research/Medicaid%20State%20Reports/1996\_Maryland\_Medicaid.pdf">http://www.aap.org/en-us/professional-resources/Research/Medicaid%20State%20Reports/1996\_Maryland\_Medicaid.pdf</a>
- Bankoski, A., De Pinto, C., Hess-Mutinda, R., & McEachern, Y. (2012, June). *Asthma in Maryland 2012*. Prepared by the Maryland Asthma Control Program, Family Health Administration, Maryland Department of Health and Mental Hygiene. Retrieved from <a href="http://phpa.dhmh.maryland.gov/mch/Documents/Asthma%20in%20Maryland%202012.pdf">http://phpa.dhmh.maryland.gov/mch/Documents/Asthma%20in%20Maryland%202012.pdf</a>
- Billings, J., Parikh, N., & Mijanovich, T. (2000, November). *Issue Brief: Emergency department use: The New York story*. Retrieved from <a href="http://www.commonwealthfund.org/usr\_doc/billings\_nystory.pdf">http://www.commonwealthfund.org/usr\_doc/billings\_nystory.pdf</a>
- Centers for Disease Control and Prevention. (n.d.a). *CDC National Asthma Control Program America Breathing Easier*. Retrieved from <a href="http://www.cdc.gov/asthma/pdfs/breathing\_easier\_brochure.pdf">http://www.cdc.gov/asthma/pdfs/breathing\_easier\_brochure.pdf</a>
- Centers for Disease Control and Prevention. (n.d.b). *Gynecological cancers: Cervical cancer screening*. Retrieved from <a href="http://www.cdc.gov/cancer/cervical/basic\_info/screening.htm#screen">http://www.cdc.gov/cancer/cervical/basic\_info/screening.htm#screen</a>
- Centers for Disease Control and Prevention. (2014, October). *Breast cancer screening: Kinds of screening tests*. Retrieved from http://www.cdc.gov/cancer/breast/basic\_info/screening.htm
- Centers for Disease Control and Prevention. (2015). *Human Papillomavirus (HPV) Questions and answers*. Retrieved from: <a href="http://www.cdc.gov/hpv/parents/questions-answers.html">http://www.cdc.gov/hpv/parents/questions-answers.html</a>
- Centers for Disease Control and Prevention. (2016, February). *Colorectal (Colon) Cancer*. Retrieved from <a href="http://www.cdc.gov/cancer/colorectal/basic\_info/screening/">http://www.cdc.gov/cancer/colorectal/basic\_info/screening/</a>
- Dental Action Committee. (2007, September). *Access to dental services for Medicaid children in Maryland*. Retrieved from <a href="http://fha.dhmh.maryland.gov/oralhealth/docs1/DAC\_report.pdf">http://fha.dhmh.maryland.gov/oralhealth/docs1/DAC\_report.pdf</a>
- Delmarva Foundation. (2011, November). *Medicaid managed care organization, Early and Periodic Screening, Diagnosis, and Treatment (EPSDT) medial record review annual report Calendar year 2010.* Columbia, MD: Delmarva Foundation.
- Delmarva Foundation. (2014, April). *Medicaid managed care organization: 2013 Annual technical report.* Columbia, MD: Delmarva Foundation.
- Delmarva Foundation. (2015, April). *Medicaid managed care organization: 2014 Annual technical report*. Columbia, MD: Delmarva Foundation.



- Goodman, H. (2013, December). *Maryland oral health plan 2011-2015: Access to oral health care oral disease and injury prevention. Committee report.* Retrieved from <a href="http://www.mdac.us/wp-content/uploads/2013/08/Harry-Goodman.pdf">http://www.mdac.us/wp-content/uploads/2013/08/Harry-Goodman.pdf</a>
- Healthcare Data Company, LLC. (2011, November). Statewide executive summary, HealthChoice and Primary Adult Care organizations, HEDIS® 2011. Mechanicsburg, PA: Author.
- HealthcareData Company, LLC. (2014, September). Statewide executive summary, HealthChoice and Primary Adult Care participating organizations, HEDIS® 2014. Mechanicsburg, PA: Author.
- HealthcareData Company, LLC. (2015, September). *Statewide executive summary, HealthChoice participating organizations, HEDIS® 2015.* Mechanicsburg, PA: Author.
- InsureKidsNow.gov. (n.d.). *CHIPRA performance bonuses: A history (FY 2009 FY 2013)*. Retrieved from <a href="http://www.insurekidsnow.gov/downloads/table-fy2009-fy2013chiprabonusawardhistory.pdf">http://www.insurekidsnow.gov/downloads/table-fy2009-fy2013chiprabonusawardhistory.pdf</a>
- Kaiser Commission on Medicaid and the Uninsured (2015, March). Recent trends in Medicaid and CHIP enrollment as of January 2015: Early Findings from the CMS Performance Indicator Project. Retrieved from <a href="http://files.kff.org/attachment/issue-brief-recent-trends-in-medicaid-and-chip-enrollment-as-of-january-2015-early-findings-from-the-cms-performance-indicator-project">http://files.kff.org/attachment/issue-brief-recent-trends-in-medicaid-and-chip-enrollment-as-of-january-2015-early-findings-from-the-cms-performance-indicator-project</a>
- The Kaiser Family Foundation. (2016). *Health insurance coverage of the total population: 2013 and 2014*. Retrieved from: http://kff.org/other/state-indicator/total-population/
- Maryland Department of Health and Mental Hygiene. (2010, December). *Maryland's 2010 annual oral health legislative report*. Retrieved from <a href="http://mmcp.dhmh.maryland.gov/docs/dentalJCRfinal10-10.pd">http://mmcp.dhmh.maryland.gov/docs/dentalJCRfinal10-10.pd</a>
- Maryland Department of Health and Mental Hygiene. (2013, October). *Maryland's 2013 annual oral health legislative report*, *Health-General Article §13-2504(b)*. Retrieved from <a href="https://mmcp.dhmh.maryland.gov/Documents/dentalJCRfinal9-13.pdf">https://mmcp.dhmh.maryland.gov/Documents/dentalJCRfinal9-13.pdf</a>
- National Cancer Institute. (2014, November). *Colorectal cancer*. Retrieved from http://www.cancer.gov/types/colorectal/screening-fact-sheet
- Pew Center on the States. (2010, February). *The cost of delay: State dental policies fail one in five children*. Retrieved from <a href="http://www.pewtrusts.org/uploadedFiles/Cost\_of\_Delay\_web.pdf">http://www.pewtrusts.org/uploadedFiles/Cost\_of\_Delay\_web.pdf</a>



- Pew Center on the States. (2011, May). *The state of children's dental health: Making coverage matter*. Retrieved from <a href="http://www.pewstates.org/uploadedFiles/PCS\_Assets/2011/The\_State\_of\_Childrens\_Dental\_health.pdf">http://www.pewstates.org/uploadedFiles/PCS\_Assets/2011/The\_State\_of\_Childrens\_Dental\_health.pdf</a>
- U.S. Cancer Statistics Working Group. (2015). *United States cancer statistics: 1999–2012 Incidence and mortality web-based report*. Atlanta: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention and National Cancer Institute.

  Retrieved from <a href="https://nccd.cdc.gov/uscs/">https://nccd.cdc.gov/uscs/</a>
- United States Census Bureau. (2014, January). *State & county quick facts Maryland*. Retrieved from <a href="http://quickfacts.census.gov/qfd/states/24000.html">http://quickfacts.census.gov/qfd/states/24000.html</a>
- WB&A Market Research. (2012, November). State of Maryland HealthChoice adult and child populations, CAHPS® 2012 4.0H adult and child Medicaid survey Executive summary. Crofton, MD: Author.
- WBA Research. (2015, October). State of Maryland HealthChoice adult and child populations, CAHPS® 2015 5.0H adult and child Medicaid satisfaction surveys Executive summary. Crofton, MD: Author.





University of Maryland, Baltimore County
Sondheim Hall, 3<sup>rd</sup> Floor
1000 Hilltop Circle
Baltimore, MD 21250
410-455-6854
www.hilltopinstitute.org