The Hilltop Institute

analysis to advance the health of vulnerable populations

Evaluation of the HealthChoice Program
CY 2012 to CY 2016

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UMBC

AN HONORS UNIVERSITY IN MARYLAND

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CY 2012 to CY 2016

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List of Abbreviations

ACA	Affordable Care Act
ACCU	Administrative Care Coordination Units
ACIS	Assistance in Community Integration Services
AHRQ	U.S. Agency for Healthcare Research and Quality
ASO	Administrative services organization
BHA	Behavioral Health Administration
CAHPS	Consumer Assessment of Healthcare Providers and Systems
CDC	Centers for Disease Control and Prevention
CHIP	Children's Health Insurance Program
CHIPRA	Children's Health Insurance Program Reauthorization Act of 2009
CLR	Childhood Lead Registry
CMS	Centers for Medicare & Medicaid Services
COPD	Chronic obstructive pulmonary disease
CY	Calendar year
The Department	Maryland Department of Health
ED	Emergency department
EPSDT	Early and periodic screening, diagnostic, and treatment
EQRO	External quality review organization
FFS	Fee-for-service
FOBT	Fecal occult blood test
FPL	Federal poverty level
FQHC	Federally qualified health center
FY	Fiscal year
HCHD	Harford County Health Department
HEDIS	Healthcare Effectiveness Data and Information Set®
LAA	Local access areas
MAT	Medication-assisted treatment
MCO	Managed care organization

MCHP	Maryland Children's Health Program
MFR	Managing-for-results
MHBE	Maryland Health Benefit Exchange
MHC	Maryland Health Connection
MHD	Mental health disorder
MMIS2	Medicaid Management Information System
MMPP	Maryland Multi-Payer Patient-Centered Medical Home Program
NCQA	National Committee for Quality Assurance
NYU	New York University
PAC	Primary Adult Care Program
PCMH	Patient-centered medical home
PCP	Primary care provider
PIP	Performance Improvement Project
PQI	Prevention Quality Indicator
REM	Rare and Expensive Case Management Program
SSI	Supplemental Security Income
SUD	Substance use disorder
TANF	Temporary Assistance for Needy Families
VBP	Value-based purchasing

Executive Summary

HealthChoice—Maryland's statewide mandatory Medicaid and Children's Health Insurance Program (CHIP) managed care system—was implemented in 1997 under authority of Section 1115 of the Social Security Act). As of the end of calendar year (CY) 2016, over 84 percent of the state's Medicaid and Maryland Children's Health Program (MCHP) populations were enrolled in the HealthChoice program.[1] 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 (including MCHP) enrollees through the fee-for-service (FFS) system.

Since the inception of HealthChoice, the Maryland Department of Health (the Department) has conducted six comprehensive evaluations of the program as part of the renewal process for its authorizing Section 1115 waiver. Between waiver renewals, the Department completes an annual evaluation for HealthChoice stakeholders. This report constitutes the 2018 annual evaluation of the HealthChoice program, which includes data from CY 2012 through CY 2016.

The addition of new MCOs and the implementation of the Affordable Care Act (ACA) have affected plan performance over the years. Between CY 2012 and CY 2013, a total of seven MCOs participated in the program. In CY 2013, one MCO—Coventry (also known as Diamond Plan)—withdrew, while a new MCO—Riverside Health of Maryland (now known as the University of Maryland Health Partners)—joined the program. In CY 2014, Kaiser Permanente of the Mid-Atlantic States joined the HealthChoice program, bringing the total to eight participating MCOs by the end of the evaluation period. Aetna Better Health of Maryland joined the HealthChoice program in CY 2017, bringing the total to nine. The inclusion of new MCOs influenced overall program performance, due to initial lower volumes of services.

Performance was also affected by the influx of individuals covered under the ACA expansion (adults under the age of 65 years with income up to 138 percent of the federal poverty level, FPL). Many of these members had low health literacy and were previously unaccustomed to accessing care through Medicaid, had limited experience in navigating a managed care health system, and were unfamiliar with the Medicaid benefit package. Despite these influences, trends in service utilization patterns indicate increased healthy literacy, in alignment with the overall goals of the HealthChoice demonstration.

[1] Maryland's Children's Health Insurance Program is known as MCHP.

Coverage and Access

Two goals of the HealthChoice program are to expand coverage to residents with low incomes 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 illustrate HealthChoice performance related to these goals:

- Overall HealthChoice enrollment increased by 42.2 percent, from 797,138 participants in CY 2012 to 1,133,524 participants in CY 2016. These totals reflect individuals enrolled as of December 31 of each respective year, thus providing a snapshot of typical program enrollment on a given day. Alternatively, the total number of individuals with any period of HealthChoice enrollment during each year increased by 38.2 percent during the evaluation period.
- Beginning in January 2014, under the ACA, Maryland expanded Medicaid eligibility to adults under the age of 65 years with incomes up to 138 percent of the FPL. In January 2014, 139,427 participants 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 2016, 299,647 participants were enrolled in Medicaid through an expansion coverage group. Of the expansion population with 12 months of enrollment in CY 2016, 42.3 percent were aged 19 to 34 years, 25.1 percent were aged 35 to 49 years, and 32.7 percent were aged 50 to 64 years.
- The percentage of participants who received any Medicaid service, including hospital, physician, or pharmacy services, during the calendar year fell from a peak of 89.5 percent in CY 2012 to a low of 86.7 percent in CY 2015 before rising to 88.5 percent in CY 2016. Participants aged 19 to 39 years were the least likely to have had any service, while those aged 0 to 1 year were the most likely.
- Looking at service utilization as a measure of access, the ambulatory care visit rate remained at 78.6 percent in CY 2012 and CY 2016, despite peaking at 79.3 percent in CY 2013 and falling to 76.1 percent in CY 2015. Expansion enrollees had a slightly lower rate of ambulatory care visits than the rest of the Medicaid population in CY 2016 despite having a slightly higher rate in CY 2015 (Table 56). HealthChoice participants in the rural regions of the state increased their use, accessing ambulatory care on par with participants in urban and suburban regions.
- Primary care provider capacity of the HealthChoice program remained relatively unchanged between CY 2015 and CY 2016. Five counties were unable to achieve a 200:1 ratio of participants to PCPs.
- Consumer Assessment of Healthcare Providers and Systems (CAHPS) survey results indicate that most participants usually or always receive needed care and receive care quickly; these rates generally align with national benchmarks.

- Between CY 2012 and CY 2016, the emergency department (ED) visit rate decreased 2.6 percentage points to 31.1 percent. The percentage of adult participants with at least one inpatient admission decreased from 14.3 percent in CY 2012 to 10.6 percent in CY 2016, a 3.7 percentage point reduction during the evaluation period.
- The percentage of participants who received an outpatient pharmacy prescription during the calendar year remained mostly the same over the evaluation period, falling from a high of 68.8 percent in CY 2012 to a low of 66.1 percent in CY 2015 before rising to 67.7 percent in CY 2016. Participants who were more likely to have filled a prescription include those aged 40-64 years, as well as those residing on the Eastern Shore.

Medical Home

Another goal of the HealthChoice program is to provide patient-focused, comprehensive, and coordinated care for individuals enrolled in the program. One method of assessing this goal is to measure whether participants can identify with and effectively navigate a medical home. With a greater understanding of the resources available to them, HealthChoice participants should seek care for non-emergent conditions in an ambulatory care setting, rather than using the ED for a non-emergent condition or letting an ailment exacerbate to the extent that it could warrant an inpatient admission. The following key findings from the evaluation are relevant to this goal:

- The percentage of HealthChoice adults with an inpatient visit designation with a Prevention Quality Indicator (PQI) decreased from 1.2 percent in CY 2012 to 0.9 percent in CY 2016. Under Maryland's 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. The Department will use these tools to continue to monitor the rate of PQI admissions and will research policies to reduce their frequency.
- The rate of potentially-avoidable ED visits decreased from 47.8 percent of all ED visits in CY 2012 to 43.2 percent in CY 2016, a decline of 4.6 percentage points.

Quality of Care

Improving the quality of health care services is another tenet of the HealthChoice program. The Department employs an extensive system of quality measurement and improvement, comparing HealthChoice against nationally-recognized performance standards. Some of the fluctuations in health care utilization can be explained by a large influx of adults into the HealthChoice population resulting from the ACA expansion. These new participants took longer to engage in appropriate primary care treatment, which affected the scores of Healthcare Effectiveness Data and Information Set (HEDIS) measures based on service use. In addition, new MCOs joined HealthChoice in CY 2013 and CY 2014, and it took time for their encounter data to become

complete. Although the new MCOs initially served relatively few members, the overall HealthChoice HEDIS scores were dramatically affected because the methodology for determining these scores calculates a simple average across the plans instead of a weighted average. The six MCOs that participated in HealthChoice prior to the addition of the two new MCOs have maintained higher, more consistent HEDIS scores demonstrates this point.

The following key findings relate to this goal:

- Breast cancer screening rates improved during the evaluation period by nearly 20 percentage points, contributing to better preventive care for women and remaining above the national Medicaid average since CY 2013.
- The rate of hemoglobin A1c (HbA1c) screenings among participants with diabetes increased by 7.7 percentage points from 81.2 percent in CY 2012 to 88.9 percent in CY 2016 after being added to the value-based purchasing (VBP) measures in 2012.
- Rates for well-child and well-care visits, as well as immunization rates, among Maryland's HealthChoice population were consistently higher than national Medicaid averages. Blood lead screening rates for children aged 12 to 23 months and 24 to 35 months improved.
- Scores for the Early and Periodic Screening, Diagnostic, and Treatment (EPSDT) program review of required services have improved overall during the evaluation period, with all components surpassing the standard 80 percent benchmark in CY 2016.
- The percentage of adult women in HealthChoice who received a cervical cancer screening has declined across the evaluation period, from 73.7 percent in CY 2012 to 64.9 percent in CY 2016, a drop of nearly ten percentage points. Despite this decrease, the rate continues to be above the national HEDIS mean.
- The screening rate for colorectal cancer decreased by 1.6 percentage points from 38.8 percent in CY 2012 to 37.2 percent in CY 2016. Since this measure has a 10-year look-back period, newly enrolled ACA participants have not had the full length of time to complete screenings compared to participants who had been eligible for HealthChoice for a longer period.
- The percentage of participants who remained on their asthma controller medication for at least half of their treatment period fell from 56.9 percent in CY 2015 to 55.8 percent in CY 2016. The CY 2016 performance fell below the national HEDIS mean.
- Regarding the quality of care for chronic conditions, the percentage of participants with diabetes who received an eye exam decreased by 7.8 percentage points in CY 2014. This decline continued through CY 2016, reaching 57 percent. Eye exams were removed from VBP incentive payments in CY 2015; the observed decrease could be a result of the reduced incentive for MCOs to provide this service.

- HealthChoice has remained within a few percentage points of national benchmarks throughout the evaluation period for the CAHPS measures, which gauge participants' satisfaction with their care providers' communication and coordination of care. HealthChoice has either improved or remained steady on each subcomponent of the CAHPS measure from CY 2012 to CY 2016.
- Two of the Performance Improvement Projects (PIPs) undertaken during the evaluation period, Adolescent Well Care and Controlling High Blood Pressure, continued across multiple years, allowing trends to be established. The Adolescent Well Care PIP resulted in improvements by four MCOs while the Controlling High Blood Pressure PIP demonstrated improvement by five MCOs.

Special Topics

As part of the goal of improving the quality of health care services, the Department monitors utilization among vulnerable populations, such as children in foster care, pregnant women, persons living with HIV/AIDS, and racial and ethnic minorities. The following key findings from the evaluation show evidence toward this goal:

- Among children aged 4 to 20 years, the dental service utilization rate rose by 0.7 percentage points between CY 2012 and CY 2016. Overall, children in foster care had a dental visit rate similar to other children in HealthChoice.
- Between CY 2012 and CY 2016, the overall rate of ambulatory care visits for children in foster care increased by 2.1 percentage points. Children in foster care in CY 2016 had a 6.1 percentage point lower rate of ambulatory care service utilization and a 7.2 percent point higher rate of outpatient ED visits compared to other children in HealthChoice.
- Measures of access to prenatal care services remained flat during the evaluation period. National Medicaid rates for this measure also held relatively constant during the period.
- Ambulatory care service utilization and viral load testing rates remained stable while CD4 testing rates increased by 5.6 percentage points for participants with HIV/AIDS during the evaluation period. ED utilization by this population decreased by 4.0 percentage points during the evaluation period.
- Inpatient and ED utilization decreased by 8.9 and 6.9 percentage points respectively during the evaluation period among HealthChoice participants with diabetes while ambulatory care utilization remained stable.
- Regarding racial and ethnic disparities in access to care, Black children had lower rates of ambulatory care visits than other children. Among the entire HealthChoice population, Black participants also had the highest ED utilization rates.

ACA Medicaid Expansion Population

The Department also monitors demographic characteristics and service utilization among the ACA Medicaid expansion population, which consists of three different coverage groups: former PAC participants,[2] childless adults,[3] and parents and caretaker relatives. Related to the ACA Medicaid expansion population:

- The majority of ACA Medicaid expansion participants with any period of enrollment were male (53.3 percent in CY 2014 and 52.2 percent in CY 2016) and resided in the Baltimore Suburban or Washington Suburban regions (54.6 percent in CY 2014 and 56.2 percent in CY 2016).
- In CY 2014, 9.4 percent of ACA Medicaid expansion participants with any period of enrollment had an inpatient visit. This rate held relatively steady at 9.2 percent in CY 2016. Among the same group of participants, 31.4 percent had at least one ED visit in CY 2014, which increased to 32.3 percent in CY 2016. In comparison, the rate of inpatient admissions among the overall HealthChoice population aged 19 to 64 years was 10.6 percent in CY 2016, while the rate of ED visits was 31.1 percent, not substantially different from the expansion population.

[2] The PAC program offered a limited benefit package to adults with low income, covering primary care visits, certain outpatient mental health services, and prescription drugs.
[3] Childless adults who were not enrolled in PAC as of December 2013.

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 (the Department) 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 mandatory managed care (fiscal year, FY, 1997). The Centers for Medicare & Medicaid Services (CMS) approved subsequent waiver renewals in 2005, 2007, 2010, 2013, and 2016.

The 2016 annual evaluation—developed as a summative review of the previous waiver period in preparation for the 2016 waiver renewal—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, the Department continually monitors HealthChoice performance on a variety of measures and completes an annual evaluation for HealthChoice stakeholders.

This report constitutes the annual evaluation submitted in calendar year (CY) 2018 for the HealthChoice program, which includes results from CYs 2012 to 2016. It presents a brief overview of the HealthChoice program and recent program updates before addressing 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, services for individuals with diabetes, the Rare and Expensive Case Management (REM) program, and racial and ethnic disparities in utilization; and
- Demographics and service utilization of the Affordable Care Act (ACA) Medicaid expansion population.

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

Overview of the HealthChoice Program

As of the end of CY 2016, over 84 percent of the state's Medicaid and Maryland Children's Health Program (MCHP) populations were enrolled in HealthChoice. HealthChoice participants

choose a managed care organization (MCO) 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 the following:

- 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;
- Starting in CY 2014, adults under age 65 with income up to 138 percent of the federal poverty level (FPL);
- Women with income up to 264 percent of the FPL who are pregnant or less than 60 days postpartum; and
- Individuals receiving Supplemental Security Income (SSI) who are under 65 and not eligible for Medicare.

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

- Medicare beneficiaries;
- Individuals aged 65 years and older;[4]
- Individuals in a "spend-down" eligibility group who are only eligible for Medicaid for a limited period of time;
- Individuals who require more than 90 days of long-term care services and are subsequently 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; and
- Individuals enrolled in the Model Waiver or the Employed Individuals with Disabilities program.

Additional populations covered under the HealthChoice waiver—but not enrolled in HealthChoice MCOs—include individuals in the Family Planning and REM programs. The Family Planning program is a limited-benefit program under the waiver, whereas HealthChoice-

[4] Individuals aged 65 and older can be enrolled in a HealthChoice MCO if covered as a parent or caretaker.

eligible individuals with certain diagnoses may choose to receive care on a fee-for-service (FFS) basis through the REM program. Section IV of this report further discusses both programs.

HealthChoice participants receive the same comprehensive benefits as those available to Maryland Medicaid participants through the FFS system. The MCO benefit package during 2016 includes, but is not limited to, the following services:

- 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;
- Durable medical equipment and disposable medical supplies;
- Home health care;
- Vision services;
- Dialysis; and
- The first 30 days of long-term care services[5]

The following services are carved out of the MCO benefit package and instead are covered by the Medicaid FFS system:

- Specialty mental health care and SUD treatment services;[6]
- 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;

[5] This was changed to the first 90 days of long-term care services in 2017.
[6] SUD services were carved out of the MCO benefit package on January 1, 2015. Mental health services have never been included in the MCO benefit package.

- HIV/AIDS and behavioral health drugs; and
- Services covered under 1915(c) home and community-based services waivers.[7]

Who Is Enrolled in HealthChoice?

The total number of individuals with any period of HealthChoice enrollment increased by 38.2 percent during the evaluation period. The expansion of eligibility to childless adults under the ACA explains much of the increase. At the beginning of the evaluation period, adults over the age of 18 made up 36.6 percent of HealthChoice participants. That proportion increased to over half of the population (50.6 percent) by CY 2016.

Table 1. HealthChoice Population (Any Period of Enrollment), Demographics, CY 2012 and CY 2016

Demographic Category	CY 2012		CY 2016	
	# of Participants	% of Total	# of Participants	% of Total
Sex				
Female	529,251	56.9%	699,264	54.4%
Male	401,073	43.1%	586,543	45.6%
Total	**930,324**	**100%**	**1,285,807**	**100%**
Age Group (Years)				
0 - <1	35,832	3.9%	36,479	2.8%
1 - 2	77,213	8.3%	79,073	6.2%
3 - 5	114,035	12.3%	108,066	8.4%
6 - 9	129,273	13.9%	147,192	11.5%
10 - 14	137,482	14.8%	156,502	12.2%
15 - 18	96,069	10.3%	108,887	8.5%
19 - 20	41,444	4.5%	46,034	3.6%
21 - 39	192,868	20.7%	341,689	26.6%
40 - 64	106,108	11.4%	261,885	20.4%
Total	**930,324**	**100%**	**1,285,807**	**100%**
Race/Ethnicity				
Asian	32,095	3.5%	55,262	4.3%
Black	456,318	49.1%	561,106	43.6%
White	268,914	28.9%	369,408	28.7%
Hispanic	114,749	12.3%	116,788	9.1%

[7] Services covered under the 1915(c) home and community-based waivers include assisted living, medical day care, family training, case management, senior center plus, dietitian and nutritionist services, and behavioral consultation.

Demographic Category	CY 2012		CY 2016	
	# of Participants	% of Total	# of Participants	% of Total
Native American	1,844	0.2%	3,618	0.3%
Other*	56,404	6.1%	179,625	14.0%
Total	**930,324**	**100%**	**1,285,807**	**100%**
Region**				
Baltimore City	192,931	20.7%	238,925	18.6%
Baltimore Metro	256,717	27.6%	370,147	28.8%
Eastern Shore	89,359	9.6%	120,328	9.4%
Southern Maryland	46,627	5.0%	64,555	5.0%
Washington Metro	266,826	28.7%	386,488	30.1%
Western Maryland	75,573	8.1%	104,010	8.1%
Out of State	2,291	0.3%	1,354	0.1%
Total	**930,324**	**100%**	**1,285,807**	**100%**

*Other race/ethnicity category includes Pacific Islands/Alaskan and unknown.
**Regions are defined as the following counties: Baltimore City (only), Baltimore Metro (Anne Arundel, Baltimore, Carroll, Harford, and Howard), Eastern Shore (Caroline, Cecil, Dorchester, Kent, Queen Anne's, Somerset, Talbot, Wicomico, and Worcester), Southern Maryland (Calvert, Charles, and St. Mary's), Washington Metro (Montgomery and Prince George's) and Western Maryland (Allegany, Frederick, Garrett, and Washington).

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 inception of the HealthChoice program in 1997, mental health services have been carved out of the benefit package, while services for individuals with SUDs were included in the benefit package. In 2013, the Department announced its decision to establish an integrated carve-out for mental health and SUD services. The Department implemented this behavioral health carve-out on January 1, 2015. An administrative services organization (ASO) was selected in September 2014 to coordinate care for both Medicaid participants and the uninsured. Since January 1, 2015, all specialty mental health and SUD services for Medicaid participants are administered and reimbursed on an FFS basis by the ASO under the oversight of Medicaid program and the Behavioral Health Administration (BHA).

- 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 adults 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 January 2018, the Department had approved 92 Health Home site applications, with more than 6,400 enrolled participants. The Health Home sites include 65 psychiatric rehabilitation programs, 10 mobile treatment providers, and 17 opioid treatment programs.
- Under the ACA, Maryland expanded coverage through the Medicaid program to the following new populations:
    - Individuals with income up to 138 percent of the FPL; over the course of the expansion's first year (CY 2014), 283,716 adults received Medicaid coverage through this expansion. This included more than 90,000 former Primary Adult Care (PAC) program participants who automatically transferred into expansion coverage. As of December 2016, there were 299,647 individuals enrolled in Medicaid as a result of the ACA expansion.
    - Former foster care children up to the age of 26 years.

The Department looks forward to including the results of several new initiatives going forward. The following programs were approved for the CY 2017 to CY 2021 waiver period:

- Effective January 1, 2017, Maryland began to provide dental benefits for former foster youth between the ages of 21 and 26 years.
- Effective July 1, 2017, Maryland implemented a Residential Treatment for Individuals with Substance Use Disorder Program for individuals aged 21 through 64 years, as part of a comprehensive SUD strategy. This program expands the benefit package to include SUD treatment in certain Institutions for Mental Disease for up to two non-consecutive 30-day stays. This benefit is administered by an ASO through the integrated behavioral health FFS delivery system. The coverage of residential treatment and withdrawal management services expanded Maryland's current SUD benefit package to cover the full continuum of care for SUD treatment.
- Maryland is administering the following two community health pilot programs effective July 1, 2017:
    - Evidence-Based Home Visiting Service Pilot Program: This program will provide evidence-based home visiting services by licensed practitioners to promote enhanced health outcomes, whole-person care, and community-integration for high-risk pregnant women and children up to two years old. Lead entities, which

must be a local government entity, can choose from two different evidence-based models focused on the health of pregnant women: Nurse Family Partnership or Healthy Families America. These models are designed to provide participants with the necessary tools to obtain and sustain good health. As of March 2018, the Harford County Health Department (HCHD) had been awarded matching federal funds under the first round of applications. HCHD intends to use these funds to serve up to 30 Harford County families. The Department released an application for a second round of funding in early 2018.

- Assistance in Community Integration Services Pilot Program (ACIS): This program will provide home- and community-based services for 300 individuals annually, including community transition services for individuals moving from institutional to community settings and for those at imminent risk of institutional placement. In addition, individuals can receive home- and community-based services that could be provided to the individual under a 1915(c) waiver or 1915(i) state plan amendment. Lead entities, which must be local government entities, receive federal matching funds to provide tenancy support services and housing case management to Medicaid enrollees who meet certain needs-based health and housing criteria. The Medicaid enrollee must have either repeated incidents of emergency department (ED) use (defined as more than four visits per year) or two or more chronic conditions and be at imminent risk of institutional placement or who after being discharged from an institutional setting will be homeless. As of March 2018, three lead entities—representing distinct regions of Maryland—had been awarded matching federal funds during the first round of applications: the Baltimore City Mayor's Office of Human Services, the Cecil County Health Department, and the Montgomery County Department of Health and Human Services. Among the three lead entities, 190 individuals will be served with first-round funding. The Department released an application for a second round of funding in early 2018.

Section I. Coverage and Access

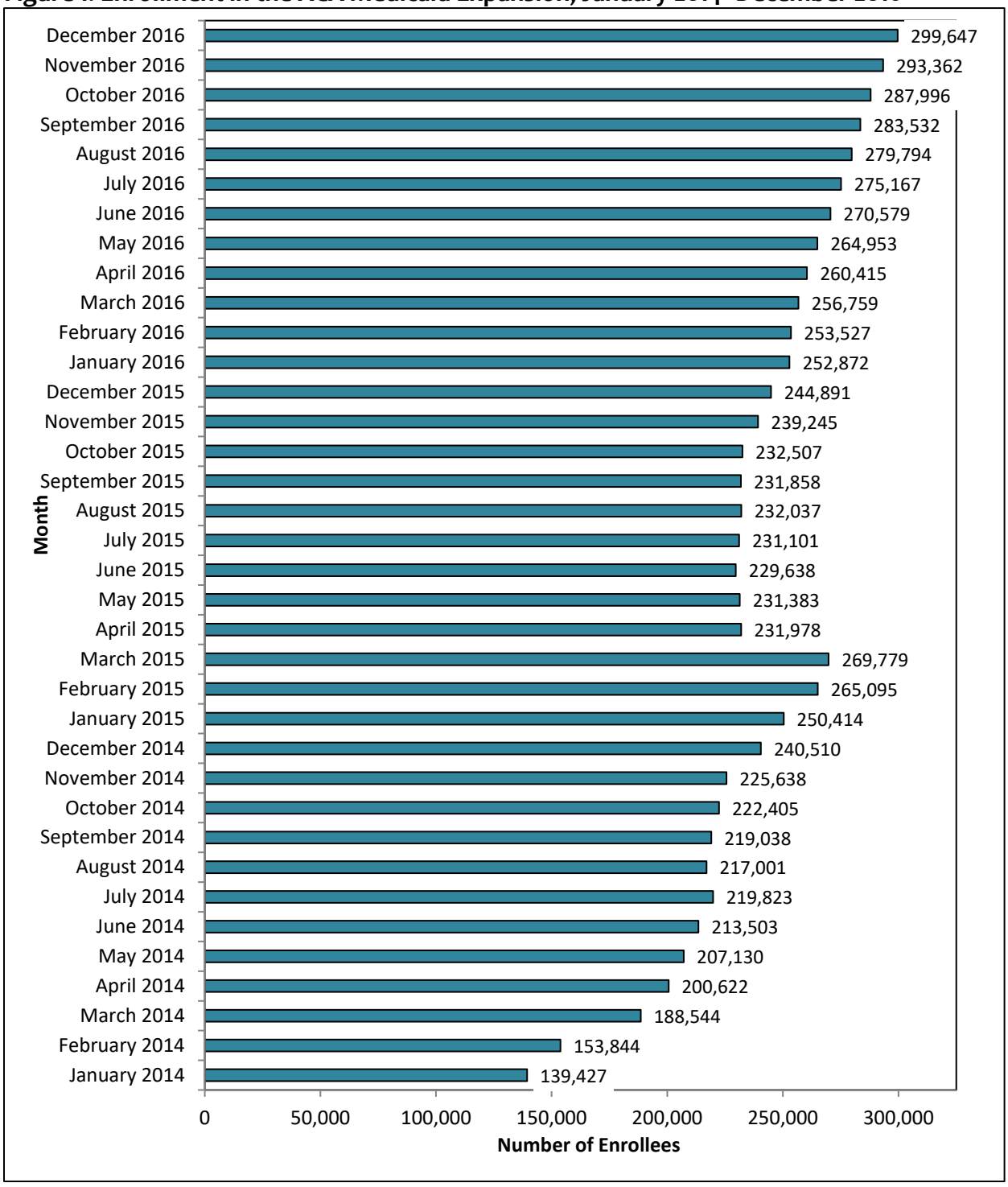
Two of the goals of the HealthChoice program are to expand coverage to additional residents with low income through resources generated from managed care efficiencies and to improve access to health care services for the Medicaid population. This section of the report addresses Maryland's progress toward achieving these coverage and access goals. It examines coverage through several enrollment measures. It also measures access to care by ambulatory care service utilization, ED visits, inpatient care, provider network adequacy, and enrollee satisfaction survey results.

Are More Marylanders Covered?

Major Expansion Initiatives

After expanding eligibility to parents and caretaker relatives of children enrolled in Medicaid from approximately 40 to 116 percent of the FPL in 2008, in January 2014, Maryland expanded Medicaid eligibility under the ACA to include individuals up to age 26 who were formerly enrolled in foster care. States also had the option of expanding their Medicaid eligibility to all adults under 65 years of age with income up to 138 percent of the FPL. Maryland elected to expand its Medicaid eligibility. As a result, eligibility for parents was further expanded, from 116 percent to 138 percent of the FPL. 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 from January 2014 to December 2016. Enrollment increased from 139,427 participants in January 2014 to a peak of 299,647 participants in December 2016. Of the expansion population with 12 months of enrollment in CY 2016, 42.3 percent were aged 19 to 34 years, 25.1 percent were aged 35 to 49 years, and 32.7 percent were aged 50 to 64 years.

Figure 1. Enrollment in the ACA Medicaid Expansion, January 2014–December 2016



*Enrollment counts in Figure 1 include enrollees of all ages and enrollees who had not yet enrolled in an MCO.

HealthChoice Enrollment

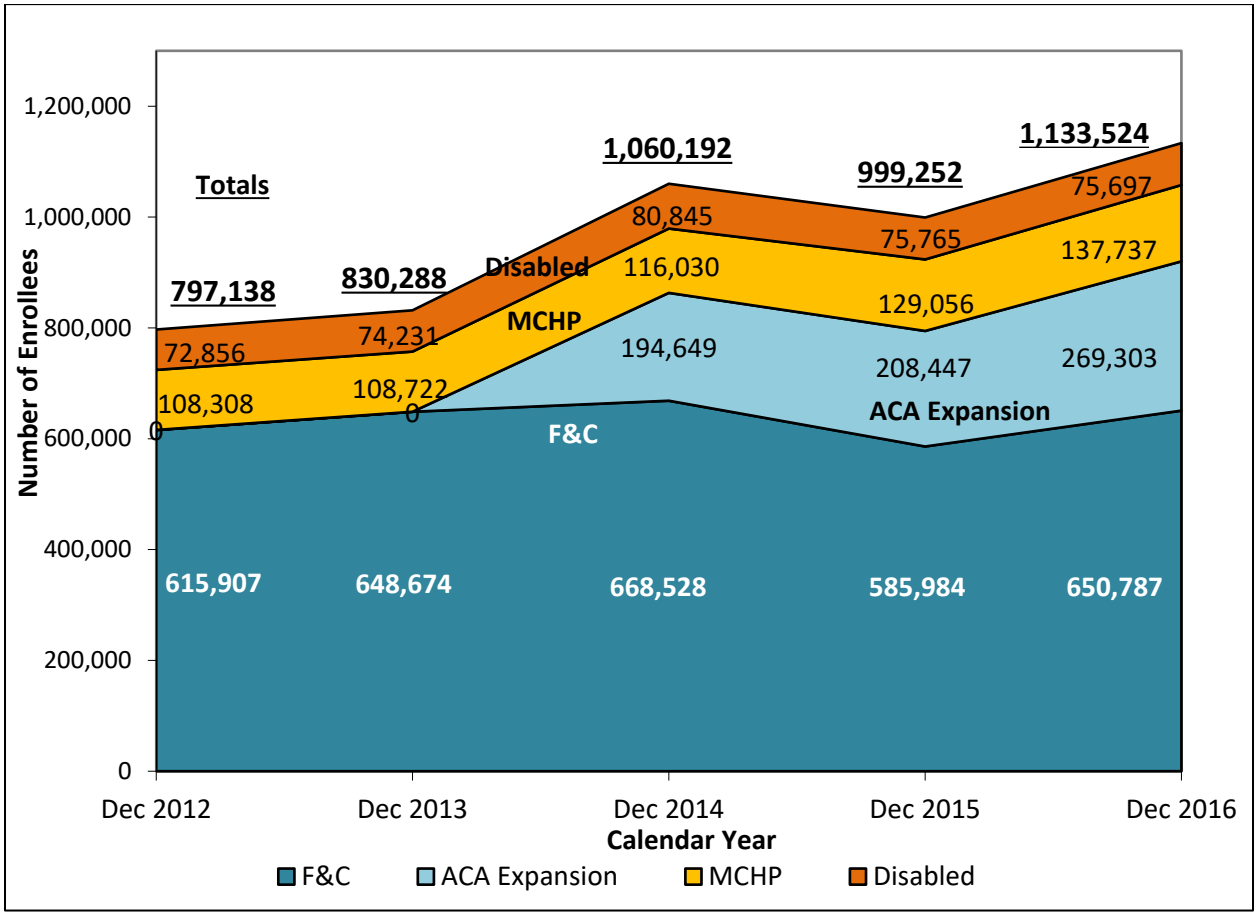
HealthChoice enrollment can be measured using several different methods. One method of measurement is to count the number of individuals with any period of enrollment during a given calendar year, including individuals who may not have been enrolled for the entire year. Another method is to count individuals who were enrolled at a certain point in time (e.g., enrollment as of December 31). Although this yields a smaller number, it provides a snapshot of typical program enrollment on a given day. Unless otherwise stated, the enrollment data in this section of the report use the point-in-time methodology to reflect enrollment as of December 31 of the measurement year.[8] Occasionally, measures will specify that they include persons enrolled at any time during the year.

Figure 2 displays HealthChoice enrollment by coverage category between CY 2012 and CY 2016. The overall HealthChoice population grew by 42.2 percent, with the largest enrollment increase occurring in CY 2014 as a result of the ACA Medicaid expansion. However, the population decreased by 5.7 percent between CY 2014 and CY 2015, due to the reinstatement of eligibility determinations, before increasing again in CY 2016. As of December 31 of each year, most HealthChoice enrollees were eligible in the families, children, and pregnant women (F&C) category. The coverage category for individuals with disabilities was the smallest eligibility category in each study year.[9]

[8] Enrollment data are presented for individuals aged 0 through 64 years. Age is calculated as of December 31 of the measurement year.

[9] Data for each year were updated to reflect a change in how coverage groups were categorized and to add a category for participants enrolled in ACA expansion coverage groups. See Appendix A for an explanation of which Medicaid coverage groups are included in each coverage category.

Figure 2. HealthChoice Enrollment by Coverage Category as of December 31, CY 2012–CY 2016*



*Enrollment counts in Figure 2 include participants aged 0-64 years who are enrolled in a HealthChoice MCO.

Enrollment Growth

As of January 2016, national enrollment in Medicaid and the Children's Health Insurance Program (CHIP) reached 72.9 million. Between the summer of 2013 and January 2016, Maryland experienced the 14th highest growth rate in Medicaid and CHIP enrollment out of the 48 states and the District of Columbia reporting data (Gates, Rudowitz, Artiga, & Snyder, 2016). The uninsured rate in Maryland fell from 11 percent in CY 2013 to 6 percent in CY 2016 (The Kaiser Family Foundation State Health Facts, n.d.).

Table 2 shows the percentage of Maryland's population enrolled in HealthChoice between CY 2012 and CY 2016. These data represent both the number of individuals enrolled in HealthChoice as of December 31 of each CY and individuals with any period of HealthChoice enrollment. The percentage of the Maryland population with any period of HealthChoice

enrollment increased from 15.8 percent in CY 2012 to 21.2 percent in CY 2016, with the largest increase from CY 2013 to CY 2014 due to the ACA Medicaid expansion. Almost all new Maryland Medicaid participants are enrolled in managed care.

Table 2. HealthChoice Enrollment as a Percentage of the Maryland Population, CY 2012–CY 2016

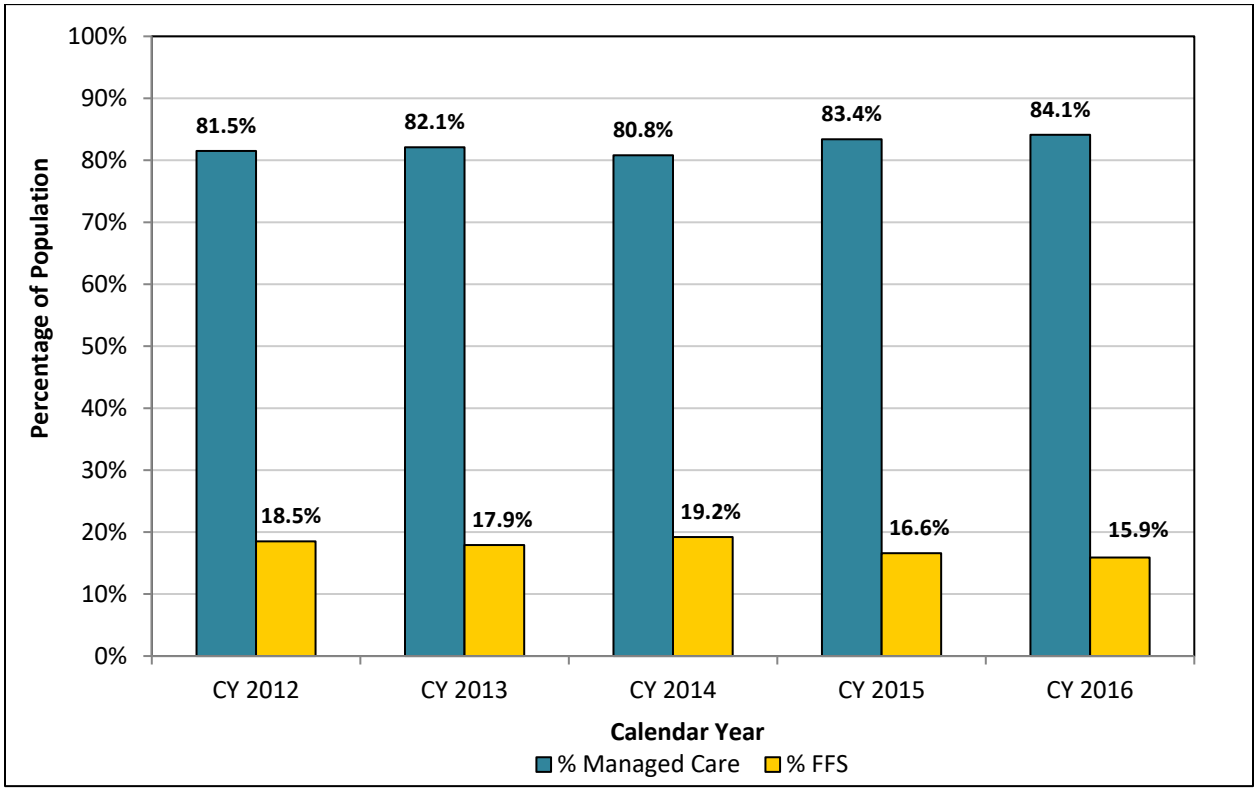
	CY 2012	CY 2013	CY 2014	CY 2015	CY 2016
Maryland Population*	5,889,651	5,931,129	5,967,295	5,994,983	6,052,177
Individuals Enrolled in HealthChoice for Any Period of Time During the Year					
HealthChoice Population	930,647	961,597	1,251,023	1,.304,492	1,285,807
% of Population in HealthChoice	15.8%	16.2%	21.0%	21.8%	21.2%
Individuals Enrolled in HealthChoice as of December 31					
HealthChoice Population	797,138	830,288	1,060,192	999,252	1,133,524
% of Population in HealthChoice	13.5%	14.0%	17.8%	16.7%	18.7%

*Data source: U.S. Census Bureau, Population Division. Annual Estimates of the Resident Population: April 1, 2010, to July 1, 2016. Retrieved from https://factfinder.census.gov/bkmk/table/1.0/en/PEP/2016/PEPANNRES

Are More Maryland Medicaid Participants Covered under Managed Care?

One of the original goals of the HealthChoice program was to enroll a higher percentage of Medicaid participants into managed care. Figure 3 presents the percentage of Maryland Medicaid participants who were enrolled in managed care (including both HealthChoice and PAC MCOs until 2014 when the PAC program ended) compared to FFS Medicaid. Between CY 2012 and CY 2016, managed care enrollment remained consistently above 80 percent.

Figure 3. Percentage of Medicaid/MCHP Participants in Managed Care versus FFS, CY 2012–CY 2016

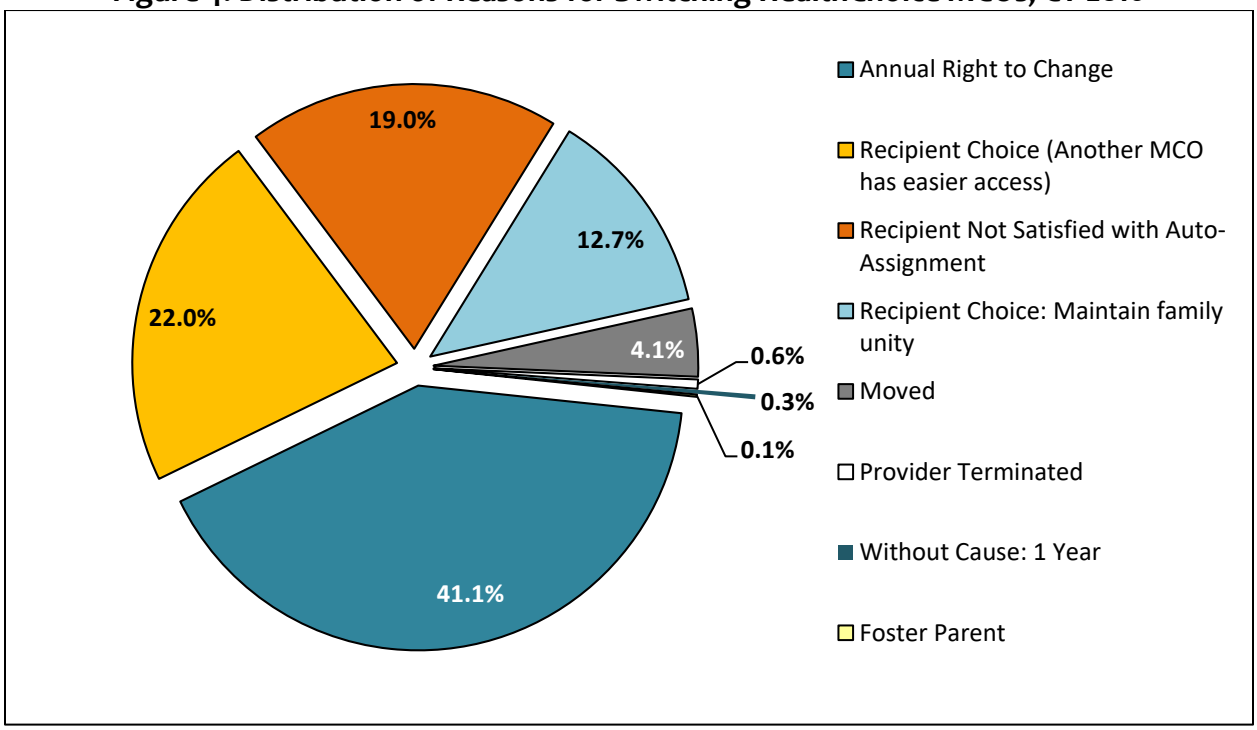


How Does the Covered Population Enroll?

The Department's enrollment broker is responsible for providing statewide education and enrollment services to HealthChoice participants in order to ensure the availability of and access to appropriate health care services. The enrollment broker continues to be the centerpiece of the HealthChoice program in terms of recipient education, enrollment, PCP selection, transfers in and out of MCOs, and annual right to change opportunities. The enrollment broker serves as the conduit for managed care program enrollment and provides oversight to program participants in the delivery of services. In CY 2016, 57 percent of new MCO enrollees chose to select an MCO; the remaining 43 percent were auto-assigned to an MCO. Web-based MCO enrollment was added as an option in February 2016. For CY 2016, 73.8 percent of enrollees enrolled via phone, 19.4 percent enrolled via web, and 6.7 percent enrolled via mail. In CY 2016, the average length of time participants took to choose an MCO was 21 days.

There are several ways HealthChoice enrollees can change MCOs. Figure 4 displays that the top reason enrollees switched MCOs in CY 2016 was due to their annual right to change (41.1 percent), followed by another MCO having easier access (22.0 percent), dissatisfaction with auto-assignment (19.0 percent), maintaining family unity (12.7 percent), and moving (4.1 percent).

Figure 4. Distribution of Reasons for Switching HealthChoice MCOs, CY 2016



Effective September 2017, the Maryland Health Connection (MHC) portal was enhanced to allow eligible Medicaid consumers to select an MCO and a PCP online immediately upon receiving their Medicaid eligibility determination. Additionally, consumers are now able to select an MCO and PCP through the MHC Consolidated Call Center or by mail. Enrollment toolkits are sent to consumers who cannot select an MCO online—such as individuals qualifying for reasons other than income—and are also available to any consumer upon request.

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 service use related to ambulatory care, ED visits, and inpatient admissions. In addition, it analyzes network adequacy to evaluate access to care. The 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; results from that survey are included in this section. Unless otherwise stated, all measures in this section are calculated for HealthChoice participants with any period of enrollment in HealthChoice during the calendar year.

Ambulatory Care Visits

The Department 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; this definition excludes ED visits, hospital inpatient services, home health, X-rays, and laboratory services. This measure also includes ambulatory care visits related to mental health disorders (MHDs) and SUDs.[10] When properly accessing care, HealthChoice participants should receive care in an ambulatory care setting rather than using the ED for a non-emergent condition or allowing a condition to exacerbate to the extent that it requires an inpatient admission.

Figure 5 presents the percentage of HealthChoice participants who received an ambulatory care visit during the calendar year by age group. Between CY 2012 and CY 2016, the ambulatory care visit rate remained unchanged. However, ambulatory care utilization rates increased for some age groups during the evaluation period. The largest increase was among children aged 10 to 18 years.

[10] See page 311 of HEDIS 2017 Technical Specifications for Health Plans for a list of diagnosis and procedure codes for both mental health and substance use.

Figure 5. Percentage of the HealthChoice Population Who Received an Ambulatory Care Visit, by Age Group, CY 2012–CY 2016

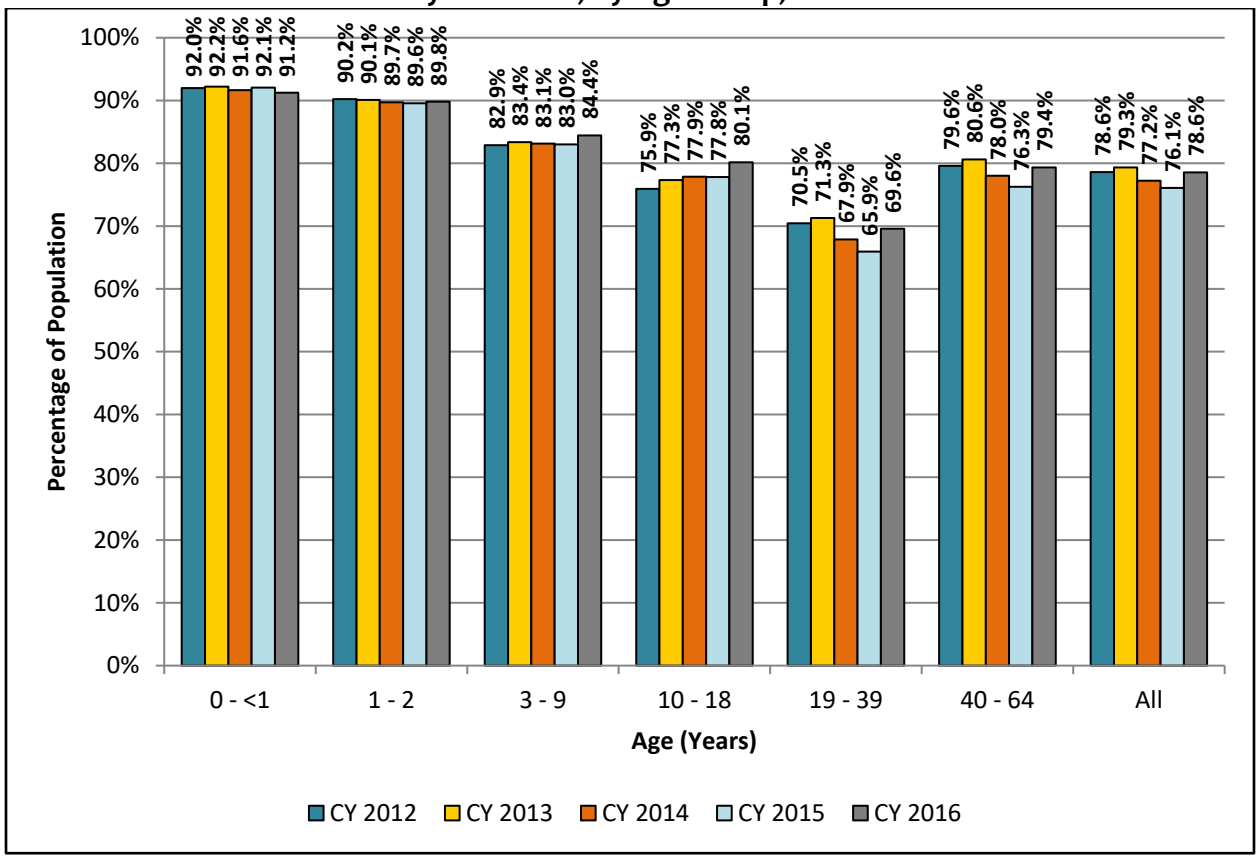


Figure 6 presents the percentage of the HealthChoice population who received an ambulatory care visit by region between CY 2012 and CY 2016. HealthChoice participants on the Eastern Shore and in Western Maryland continued to have the highest rates of ambulatory care visits across the state. Nonetheless, HealthChoice participants' utilization of ambulatory care is similar across all regions.

Figure 6. Percentage of the HealthChoice Population Who Received an Ambulatory Care Visit by Region, CY 2012–CY 2016

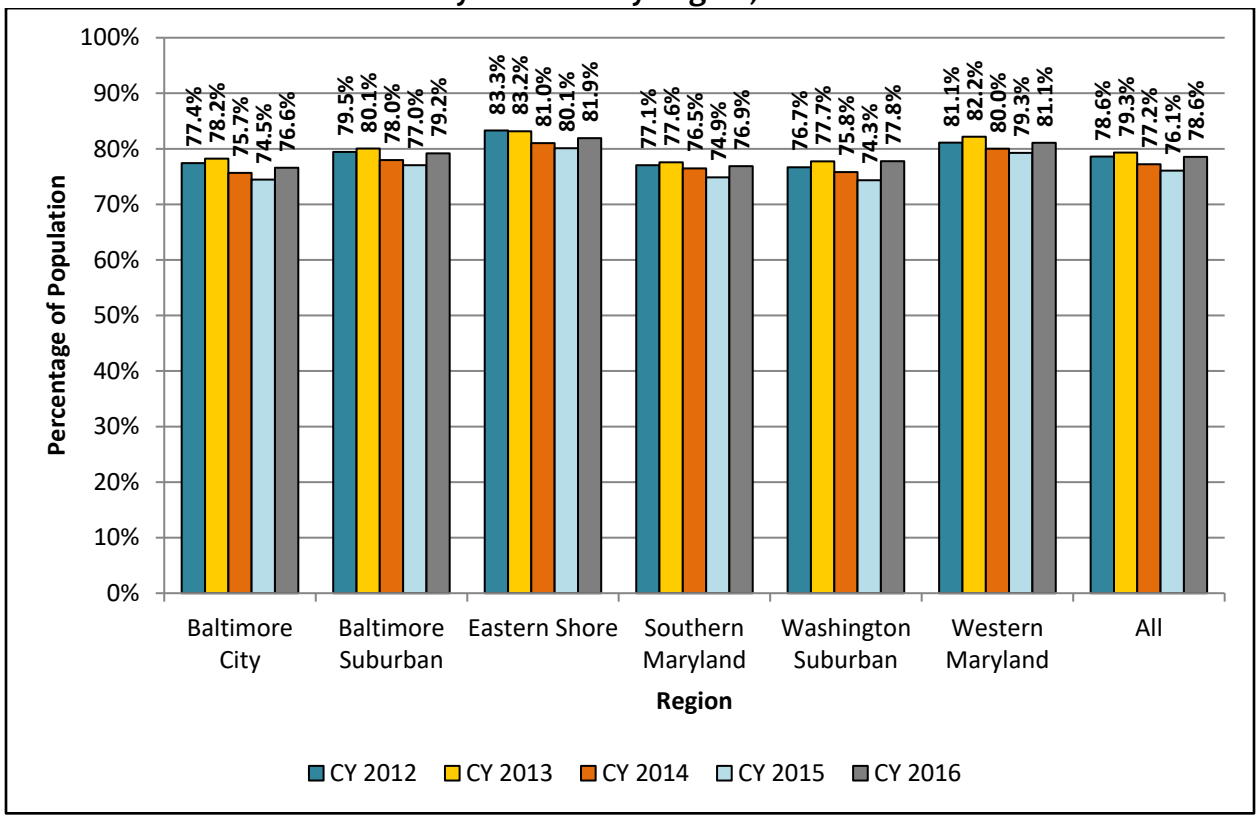
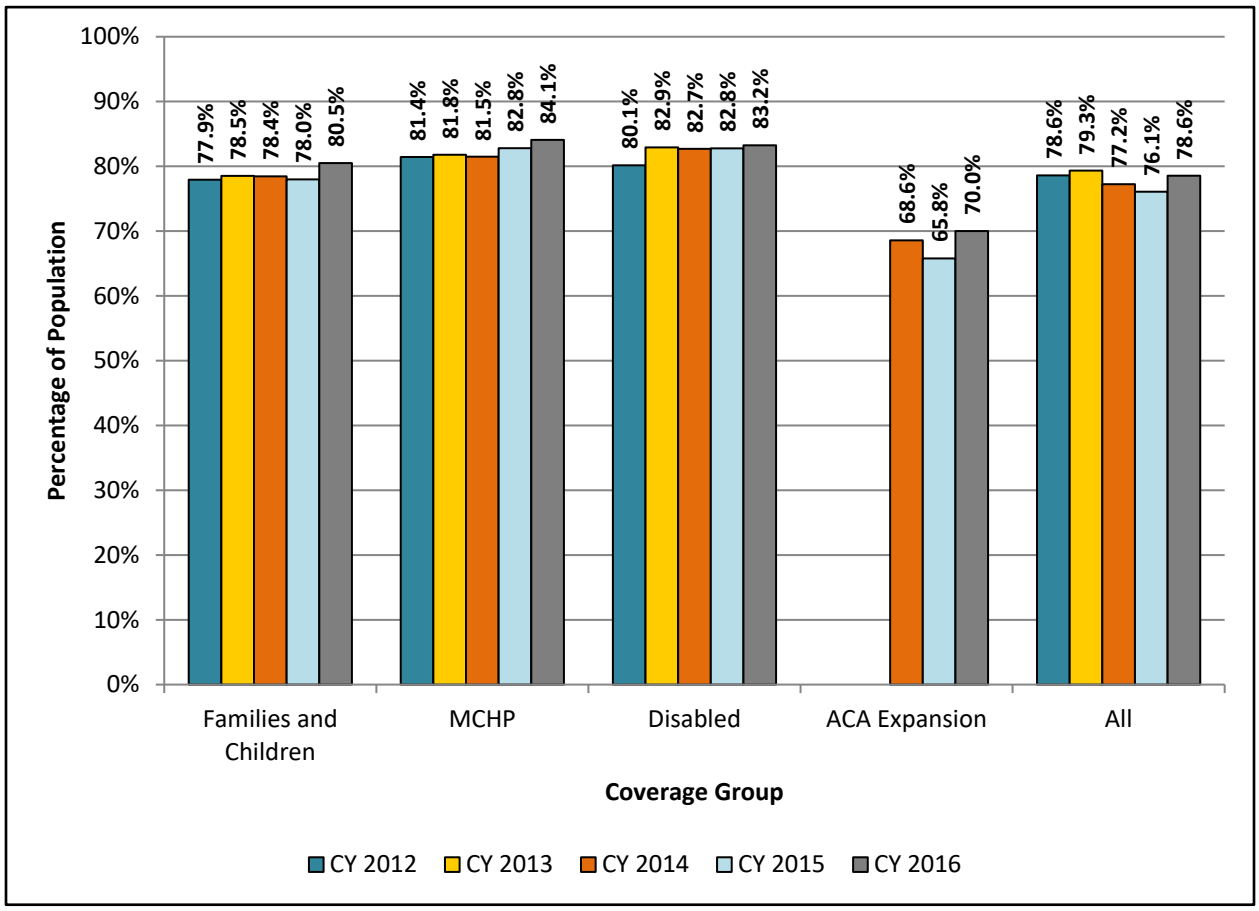


Figure 7 presents ambulatory care use by coverage category. While there was a decline in ambulatory care utilization among the entire HealthChoice population through CY 2015, the rate in CY 2016 rebounded to the same level as in CY 2012. The decreases in utilization in CY 2014 and CY 2015 were likely due to the addition of participants in the ACA expansion group; these individuals accessed ambulatory care services at lower rates than participants in other coverage groups, but by CY 2016, this population's rate rose to 70 percent.

Figure 7. Percentage of the HealthChoice Population Who Received an Ambulatory Care Visit, by Coverage Category, CY 2012–CY 2016

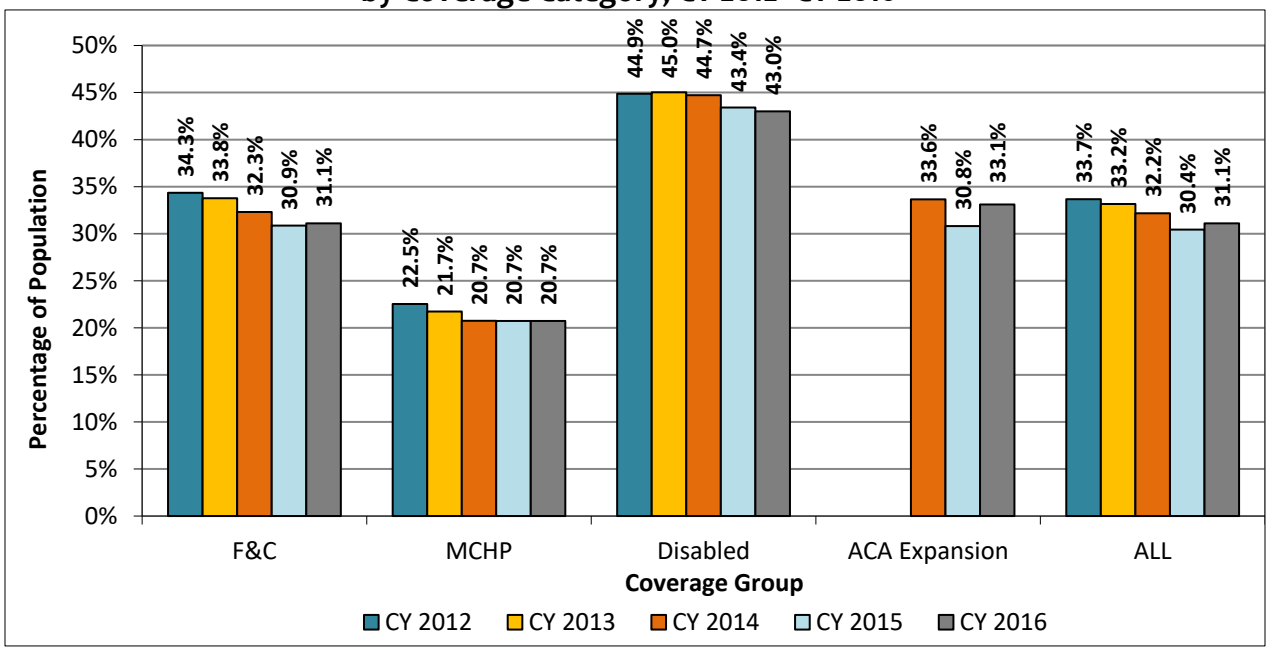


ED Utilization

As noted earlier, one of the goals of the HealthChoice program is to decrease the number of ED visits 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, the Department 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 8 presents ED use by coverage category. Overall, the ED visit rate among HealthChoice participants declined between CY 2012 and CY 2015 (from 33.7 to 30.4 percent), although there was a slight increase in CY 2016 to 31.1 percent. Among the coverage categories, participants with disabilities were the most likely to utilize ED services throughout the evaluation period.[11]

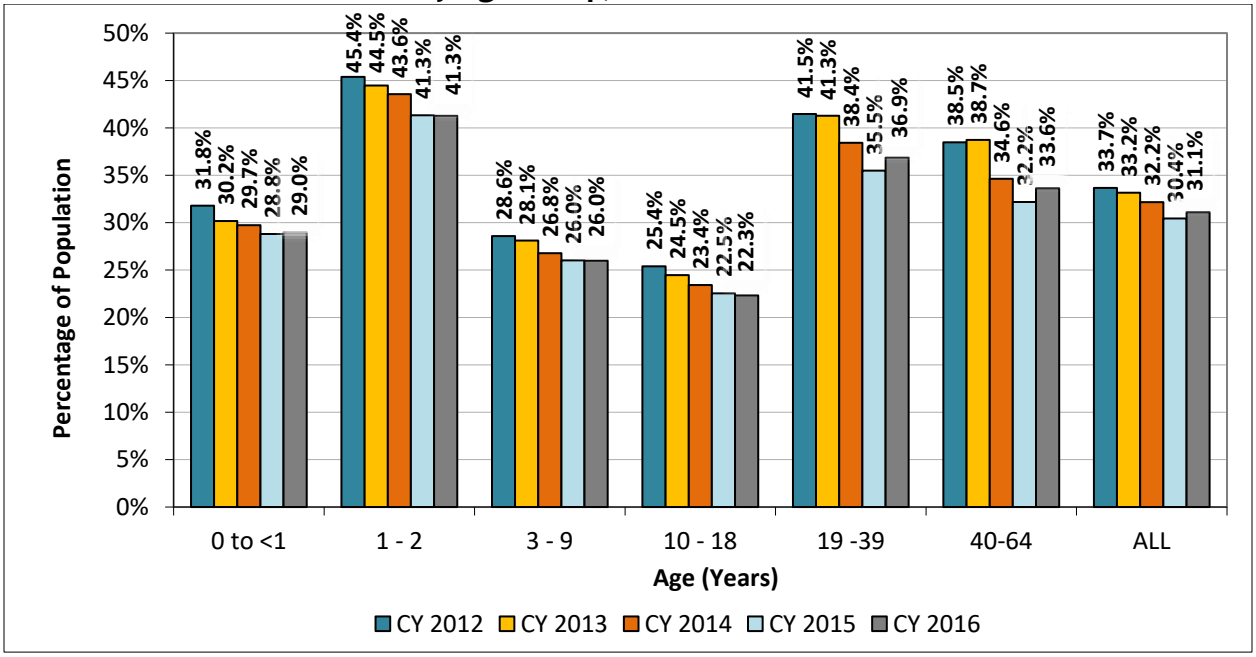
Figure 8. Percentage of the HealthChoice Population Who Received an ED Visit, by Coverage Category, CY 2012–CY 2016



[11] Data for each year were updated to reflect a change in how coverage groups were categorized and to add a category for participants enrolled in ACA expansion coverage groups. See Appendix A for an explanation of which Medicaid coverage groups are included in each coverage category.

Figure 9 shows ED utilization by age group from CY 2012 through CY 2016. Children aged 1 and 2 years had the highest ED use across the evaluation period (41.3 percent), followed by adults aged 19 to 39 years (36.9 percent). Between CY 2012 and CY 2016, the ED visit rate for adults aged 19 to 39 years and 40 to 64 years declined by 4.6 and 4.9 percentage points, respectively.

Figure 9. Percentage of the HealthChoice Population Who Received an ED Visit, by Age Group, CY 2012–CY 2016



Inpatient Admissions

To assess inpatient utilization, the Department measures the percentage of participants aged 18 to 64 years with any period of HealthChoice enrollment who had an inpatient admission during the calendar year. Inpatient admissions include all institutional services reported by Maryland hospitals as inpatient.

Table 3 presents the percentage of HealthChoice participants with at least one inpatient hospital admission. Overall, the rate of adult HealthChoice participants with at least one inpatient admission decreased by 3.7 percentage points, from 14.3 percent in CY 2012 to 10.6 percent in CY 2016. Changes in the composition of participants through the ACA expansion are likely to have contributed to this reduction.

Table 3. Percentage of HealthChoice Participants Aged 18–64 Years Who Received an Inpatient Admission, CY 2012–CY 2016

Year	Number of Participants	Number with at Least One Inpatient Admission	Percentage of Total
CY 2012	364,528	52,294	14.3%
CY 2013	379,149	51,700	13.6%
CY 2014	636,719	72,302	11.4%
CY 2015	687,777	69,991	10.2%
CY 2016	675,447	71,605	10.6%

Prescriptions

Figure 10 presents the percentage of HealthChoice participants who filled outpatient pharmacy prescriptions during the calendar year by age group. Prescription utilization decreased across all age groups between CY 2012 and CY 2015. For most age groups, there was a slight increase between CY 2015 and CY 2016.

Figure 10. Percentage of the HealthChoice Population Who Received an Outpatient Pharmacy Prescription, by Age Group, CY 2012–CY 2016

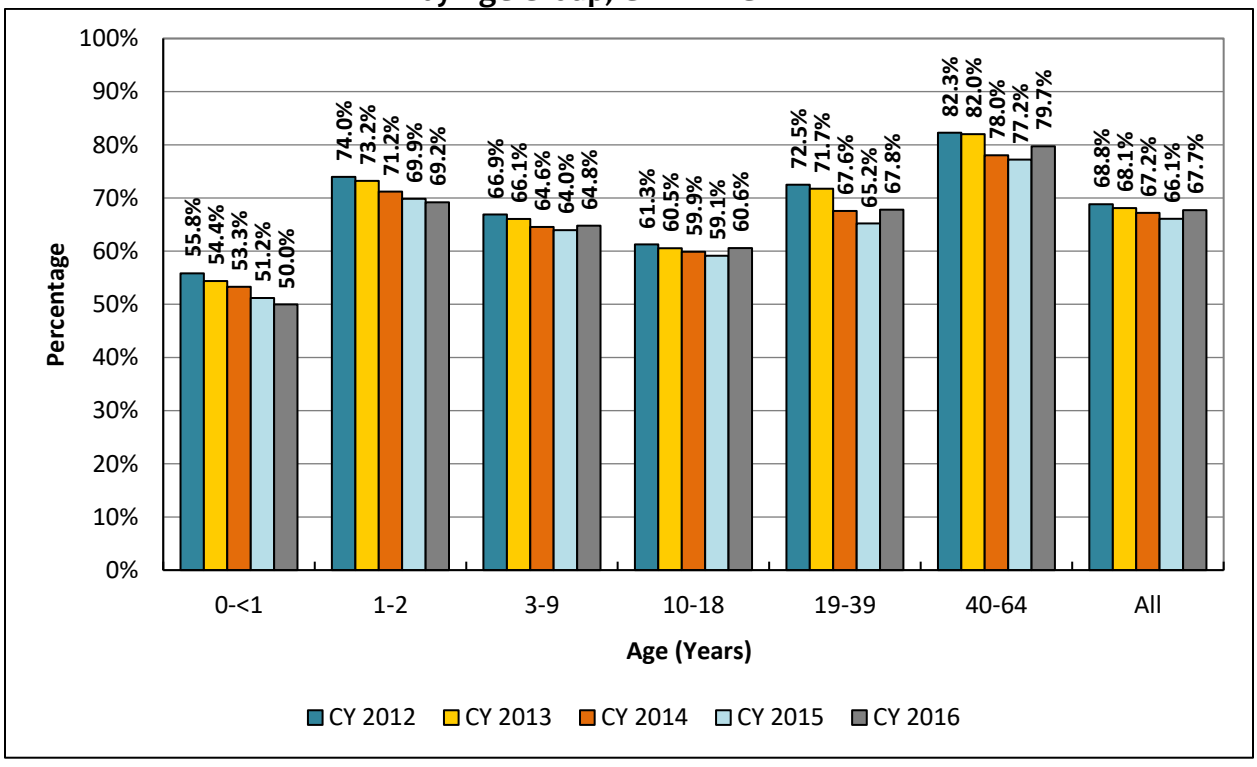
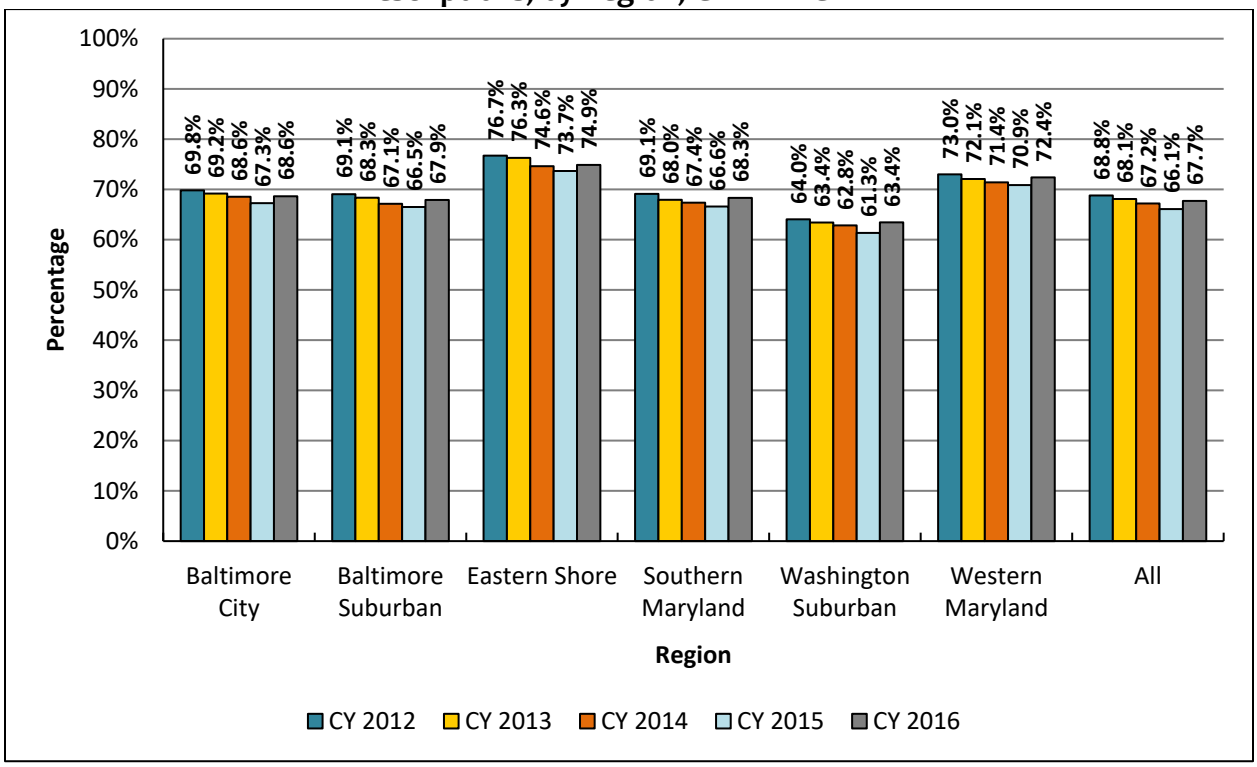


Figure 11 presents the percentage of HealthChoice participants who filled outpatient pharmacy prescriptions by region between CY 2012 and CY 2016. Across the measurement period, the percentage of participants with at least one prescription decreased by 0.9 percentage points. HealthChoice participants in the Eastern Shore and in Western Maryland had the highest rates of prescription usage across the state.

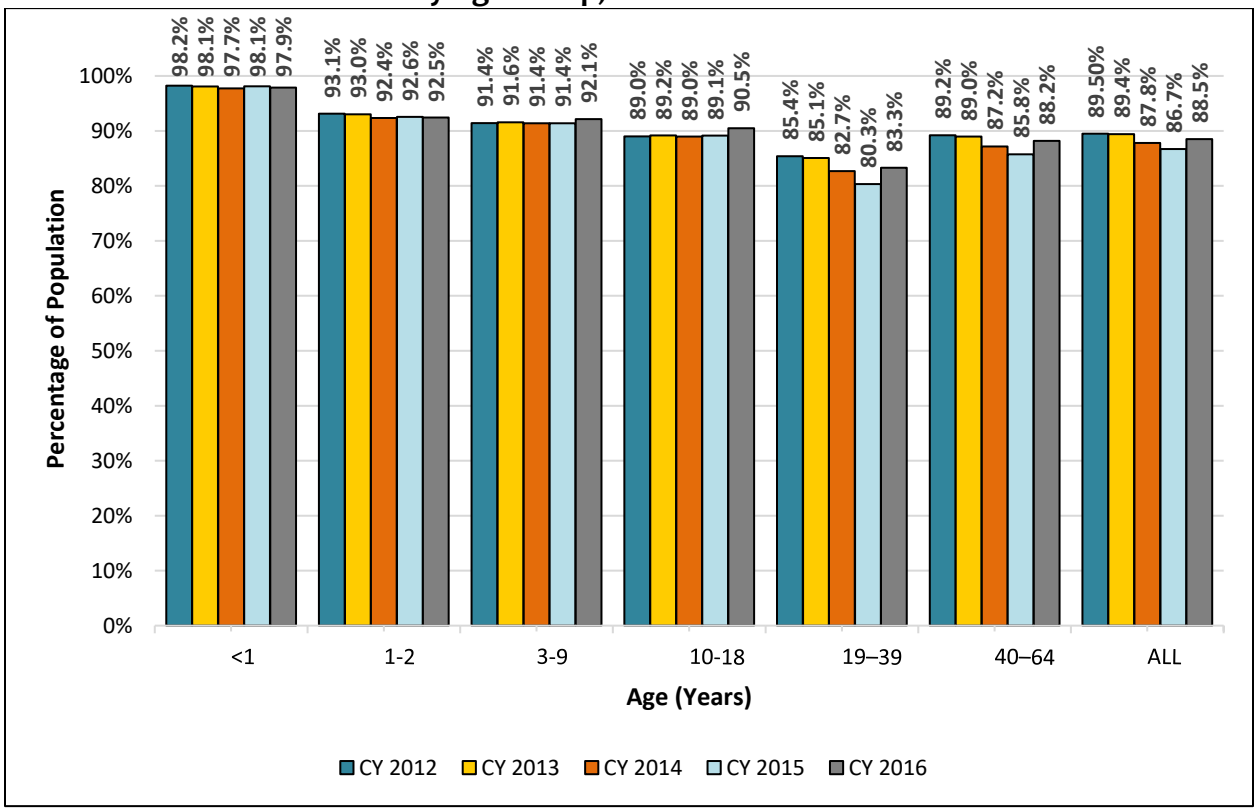
Figure 11. Percentage of HealthChoice Population Who Received Outpatient Pharmacy Prescriptions, by Region, CY 2012–CY 2016



Any Service

Figure 12 shows the percentage of HealthChoice participants who received at least one Medicaid service during the calendar year by age group. Between CY 2012 and CY 2016, the percentage of participants who received at least one service decreased across all age groups, with the exception of children aged 3 to 9 years and 10 to 18 years. The largest decrease—2.1 percentage points—was noted among adults aged 19 to 39 years. Younger children aged 0 to 9 years had a consistently higher utilization rate than adults aged 19 to 64 years. Required health services, such as immunizations for children, are likely to have contributed to the higher utilization rate among this population.

Figure 12. Percentage of HealthChoice Population Receiving Any Medicaid Service, by Age Group, CY 2012 – CY 2016



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 enrolled population. HealthChoice regulations require each MCO to have a ratio of one PCP to every 200 participants within each of the 40 local access areas (LAAs) in the state that they serve.[12] Because some PCPs traditionally serve a high volume of HealthChoice participants at some of their sites (e.g., physicians at federally-qualified health centers, FQHCs), the regulations permit the Department to approve a ratio of 2,000 adult participants per high-volume provider and 1,500 participants aged zero to 21 years per high-volume provider. The Department assesses network adequacy periodically throughout the year to identify potential

[12] COMAR 10.09.66.05B.

network inadequacies and works with the MCOs to resolve capacity issues. In the case of any such issues, the Department discontinues new enrollment for that MCO in the affected region until it increases provider contracts to an adequate level.

Table 4 shows PCP network adequacy as of December 2016. The analysis counts the number of PCP offices included in provider networks in each county in Maryland. If a provider has more than one office location in a 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 active as of the end of the evaluation period. 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 all counties are more than adequate. In CY 2014, seven Maryland counties failed to meet the more rigorous 200:1 ratio; in CYs 2015 and 2016, five counties failed to meet this ratio. Those five counties included Allegany, Caroline, Dorchester, Prince George's, and Wicomico. Part of the discrepancy regarding Prince George's County may be due to many HealthChoice enrollees residing in that jurisdiction receiving care from PCPs located in Washington, D.C.

Table 4. PCP Capacity, by County, CY 2016

County	Number of PCP Offices	Capacity at 200:1	Capacity at 500:1	Total Dec 2016 Enrollment	Excess Capacity	
					Difference 200:1 Ratio	Difference 500:1 Ratio
Allegany	80	16,000	40,000	17,128	-1,128	22,872
Anne Arundel	687	137,400	343,500	75,986	61,414	267,514
Baltimore City	1,867	373,400	933,500	213,322	160,078	720,178
Baltimore County	1,329	265,800	664,500	159,015	106,785	505,485
Calvert	113	22,600	56,500	11,844	10,756	44,656
Caroline	45	9,000	22,500	9,894	-894	12,606
Carroll	186	37,200	93,000	18,829	18,371	74,171
Cecil	120	24,000	60,000	22,502	1,498	37,498
Charles	164	32,800	82,000	25,847	6,953	56,153
Dorchester	40	8,000	20,000	10,501	-2,501	9,499
Frederick	211	42,200	105,500	32,589	9,611	72,911
Garrett	38	7,600	19,000	6,996	604	12,004
Harford	255	51,000	127,500	35,997	15,003	91,503
Howard	357	71,400	178,500	35,507	35,893	142,993
Kent	22	4,400	11,000	4,058	342	6,942
Montgomery	1,035	207,000	517,500	148,134	58,866	369,366
Prince George's	813	162,600	406,500	189,189	-26,589	217,311
Queen Anne's	70	14,000	35,000	7,241	6,759	27,759
Somerset	44	8,800	22,000	7,148	1,652	14,852
St. Mary's	148	29,600	74,000	19,009	10,591	54,991
Talbot	108	21,600	54,000	6,728	14,872	47,272
Washington	185	37,000	92,500	35,636	1,364	56,864
Wicomico	140	28,000	70,000	28,246	-246	41,754
Worcester	88	17,600	44,000	11,157	6,443	32,843
Total (in MD)	**8,145**	**1,629,000**	**4,072,500**	**1,132,503**	**496,497**	**2,939,997**
Other	227					
Washington, D.C.	477					

Specialty Care Provider Network Adequacy

In addition to ensuring PCP network adequacy, the Department 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 for specialty care access require each MCO to have an in-network contract with at least one provider statewide in 14 major medical specialties.[13] These medical specialties include allergy, cardiology, dermatology, endocrinology, otolaryngology (ENT), gastroenterology, infectious disease, nephrology, neurology, ophthalmology, orthopedics, pulmonology, surgery, and urology. Additionally, for each of 10 specialty care regions throughout the state that 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.

CAHPS Survey Results

The Department adopted the CAHPS survey to measure enrollee satisfaction with medical care (WBA Research, 2013; 2017). Two CAHPS survey measures related to access to care include "getting needed care" and "getting care quickly." The following are "getting needed care" measures:

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

The following are "getting care quickly" measures:

- How often the participants received care as soon as possible when they needed care right away; and
- 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." This analysis compares HealthChoice enrollees' responses 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.

[13] COMAR 10.09.66.05-1.

In CY 2016, 82 percent of adult HealthChoice members responded that they were "usually" or "always" successful in getting needed care, and 81 percent of adult members responded that they were "usually" or "always" successful in getting care quickly (Table 5). In CY 2016, the percentage of HealthChoice members who reported getting needed care was the same as the NCQA Quality Compass benchmark; the percentage who reported getting care quickly was one percentage point below the benchmark.

Table 5. Percentage of Adult HealthChoice Participants Responding "Usually" or "Always" to Getting Needed Care and Getting Care Quickly Compared with the NCQA Benchmark, CY 2012–CY 2016

	CY 2012	CY 2013	CY 2014	CY 2015	CY 2016
Getting Needed Care: Percentage of participants who responded "Usually" or "Always"					
HealthChoice	79%	80%	80%	81%	82%
NCQA Quality Compass Benchmark	81%	81%	81%	80%	82%
Getting Care Quickly: Percentage of participants who responded "Usually" or "Always"					
HealthChoice	80%	79%	78%	81%	81%
NCQA Quality Compass Benchmark	81%	81%	81%	80%	82%

In CY 2016, 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 6). In CY 2016, the rates for getting needed care and for getting care quickly were two and one percentage points lower than the NCQA benchmark, respectively.

Table 6. 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 2012–CY 2016

	CY 2012	CY 2013	CY 2014	CY 2015	CY 2016
Getting Needed Care: Percentage of members who responded "Usually" or "Always"					
HealthChoice	82%	84%	83%	83%	83%
NCQA Quality Compass Benchmark	84%	85%	84%	84%	85%
Getting Care Quickly: Percentage of members who responded "Usually" or "Always"					
HealthChoice	91%	90%	88%	90%	88%
NCQA Quality Compass Benchmark	89%	89%	89%	89%	89%

Parents and guardians of children with chronic conditions in HealthChoice were also surveyed (Table 7). In CY 2016, 85 percent responded "usually" or "always" to getting needed care for their children, which is one percentage point lower than the NCQA benchmark. The CY 2016 rate for "usually" or "always" getting care quickly was 92 percent, meeting the NCQA benchmark.

Table 7. 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 2012–CY 2016

	CY 2012	CY 2013	CY 2014	CY 2015	CY 2016
Getting Needed Care: Percentage of members who responded "Usually" or "Always"					
HealthChoice	84%	85%	86%	85%	85%
NCQA Quality Compass Benchmark	86%	87%	86%	86%	86%
Getting Care Quickly: Percentage of members who responded "Usually" or "Always"					
HealthChoice	93%	92%	92%	92%	92%
NCQA Quality Compass Benchmark	92%	93%	91%	92%	92%

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 younger than 65 with income up to 138 percent of the FPL. Enrollment in Medicaid expansion coverage groups increased from 139,427 participants in January 2014 to 299,647 participants in December 2016. The overall HealthChoice population grew by 42.2 percent between CY 2012 and CY 2016. In CY 2016, 21.2 percent of Maryland's population had a period of enrollment 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 2016, five Maryland counties—one in Western Maryland, one in the Washington Suburban region, and three on the Eastern Shore—did not meet the 200:1 enrollee-to-PCP ratio for network adequacy standards. Network adequacy in two other counties—Cecil and Garrett—improved after CY 2014 and continue to meet the 200:1 enrollee-to-PCP ratio standards.

Looking at service utilization as a measure of access, the percentage of participants receiving an ambulatory care visit in both CY 2012 and CY 2016 was 78.6 percent. During that time, the ED visit rate dropped 2.6 percentage points to 31.1 percent. New HealthChoice participants who enrolled through the ACA Medicaid expansion had lower utilization rates than other enrollees, resulting in overall declines in ambulatory care and ED utilization rates between CY 2013 and CY 2016. The percentage of adult HealthChoice participants with an inpatient admission decreased by 3.7 percentage points during the evaluation period.

Regarding enrollee satisfaction, CAHPS survey results indicate that most participants report that they usually or always receive needed care and receive care quickly. In CY 2015, the percentage of adult HealthChoice members who reported getting needed care and getting care quickly exceeded the NCQA Quality Compass benchmarks for the first time in the measurement period. In CY 2016, the percentage of adult HealthChoice members who reported getting care quickly met the NCQA Quality Compass benchmark, and the percentage of the adult HealthChoice participants who reported getting needed care was one percentage point below the NCQA Quality Compass benchmark.

Section II. Medical Home

Another goal of the HealthChoice program is to ensure patient-focused, comprehensive, and coordinated care by providing each member with a medical home. To this end, HealthChoice participants choose an MCO and a PCP from their MCO's network to oversee their medical care. 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 analyzes HealthChoice participants' ability to connect with their medical homes and their level of comprehension in navigating 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

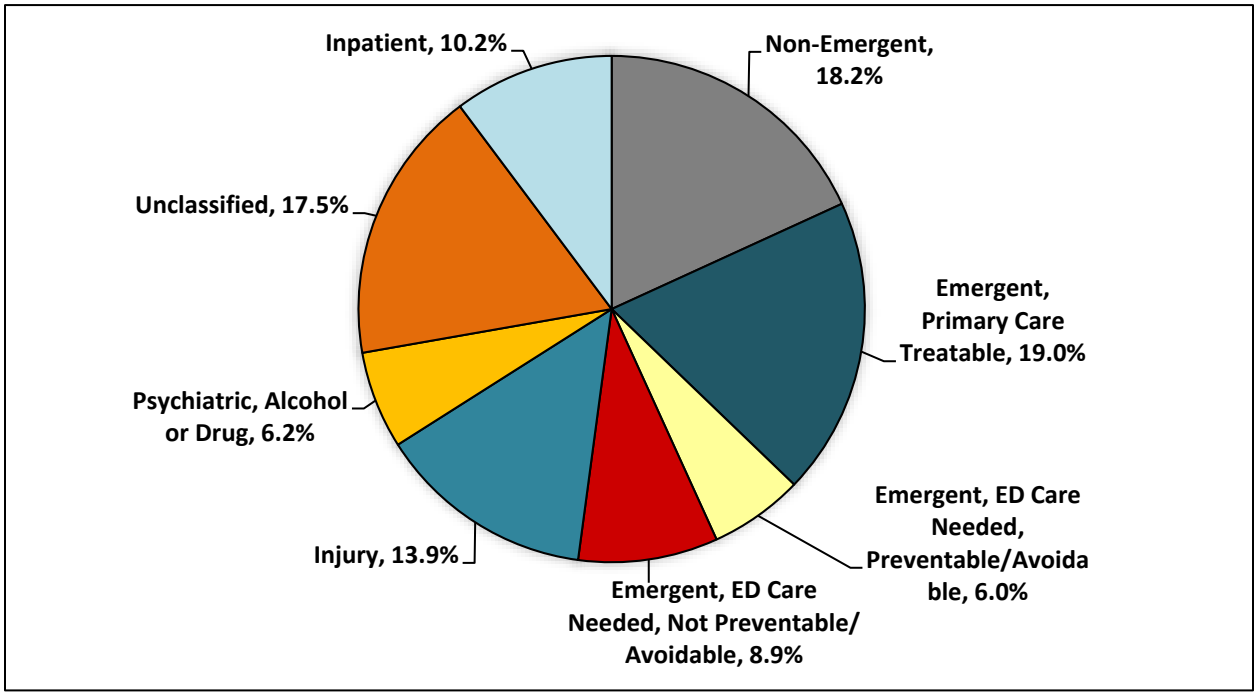
A fundamental goal of managed care programs such as HealthChoice is the delivery of the right care at the right time in the right setting. One widely used methodology to evaluate progress toward this goal by having appropriate ED utilization is based on classifications developed by researchers at the New York University (NYU) Center for Health and Public Service Research (Billings, Parikh, & Mijanovich, 2000). According to Billings et al. (2000), the ED 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-hours primary care and urgent care centers. Figure 13 presents the distribution of all CY 2016 ED visits by NYU classification for individuals with any period of HealthChoice enrollment. In CY 2016, 43.2 percent of all ED visits were for potentially-avoidable conditions, meaning that the ED visit could have been avoided if the condition had been addressed with high-quality and timely 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 22.8 percent of all ED visits in CY 2016. Adults aged 40 through 64 years had more ED visits related to category 4 (emergent, ED care needed, not preventable/avoidable) than all other age groups. Children aged three through 18 years had more category 5 (injury) ED visits than other age groups. The inpatient category in Figure 13, 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.

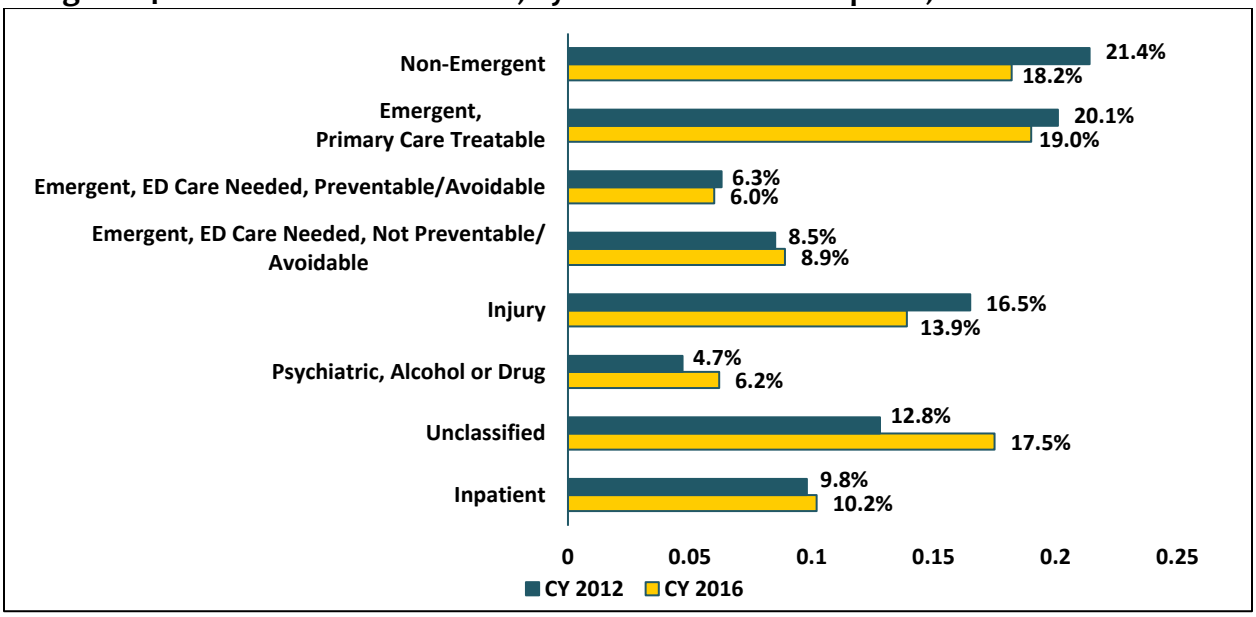
Figure 13. ED Visits by HealthChoice Participants Classified According to NYU Avoidable ED Algorithm, CY 2016



* ED visits that result in an inpatient stay are not a part of the NYU algorithm and have been added here in their own category.

Figure 14 compares the ED visit classifications for CY 2012 with the classifications for CY 2016. The data show that potentially-avoidable ED visits decreased during the evaluation period: from 47.8 percent of all ED visits in CY 2012 to 43.2 percent in CY 2016. To maintain this trend, the Department will continue to monitor ED use with the goal of reducing potentially avoidable ED visits.

Figure 14. Classification of ED Visits, by HealthChoice Participants, CY 2012 and CY 2016



Preventable or Avoidable Admissions

Ambulatory care-sensitive hospitalizations, 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. The Department 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:[14]

- PQI #1: Diabetes Short-Term Complications
- PQI #2: Perforated Appendix

[14] The measure estimation logic has been updated using AHRQ PQI Version 6.0. PQI #13 was retired and removed from PQI composites. A full description of the methodological revisions is available here: http://www.qualityindicators.ahrq.gov/Downloads/Modules/PQI/V60/ChangeLog_PQI_v60.pdf.

- 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:[15] Prevention Quality Overall Composite
- PQI #91:[16] Prevention Quality Acute Composite
- PQI #92:[17] Prevention Quality Chronic Composite

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

- Aged 18 to 64 years as of December 31 of the calendar year
- For PQI #5: Aged 40 to 64 years as of December 31 of the calendar year
- 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 8 presents the number of potentially avoidable inpatient admissions per 100,000 HealthChoice participants aged 18 to 64 years during CY 2012 through CY 2016. COPD or Asthma in Older Adults (PQI #5) was responsible for the highest number of potentially-avoidable admissions throughout the evaluation period. The numbers of potentially-avoidable admissions for Perforated Appendix (PQI #2), Hypertension (PQI #7), Uncontrolled Diabetes (PQI #14), and Lower-Extremity Amputation in Patients with Diabetes (PQI #16) were the smallest across the evaluation period.

[15] PQI #90 includes PQI #s 1, 3, 5, 7, 8, 10, 11, 12, 13, 14, 15, and 16.
[16] PQI #91 includes PQI #s 10, 11, and 12.
[17] PQI #92 includes PQI #s 1, 3, 5, 7, 8, 13, 14, 15, and 16.

Table 8. Number of Potentially-Avoidable Inpatient Admissions per 100,000 HealthChoice Participants Aged 18–64 Years, CY 2012–CY 2016[18]

PQI #	CY 2012	CY 2013	CY 2014	CY 2015	CY 2016
1: Diabetes Short-Term Complications Admissions	163	180	196	172	167
2: Perforated Appendix Admissions	17	16	20	16	19
3: Diabetes Long-Term Complications Admissions	177	183	149	128	118
5: COPD or Asthma in Older Adults Admissions (Ages 40-64)	1,580	1,325	867	716	729
7: Hypertension Admissions	74	60	71	58	46
8: Congestive Heart Failure Admissions	268	262	245	235	230
10: Dehydration Admissions	107	82	81	90	103
11: Bacterial Pneumonia Admissions	222	205	193	159	176
12: Urinary Tract Infection Admissions	151	137	106	96	91
14: Uncontrolled Diabetes Admissions	20	20	15	18	50
15: Asthma in Younger Adults Admissions (Ages 18-39)	152	133	115	94	85
16: Lower-Extremity Amputation In Patients With Diabetes	*	*	*	*	*
90: Prevention Quality Overall Composite	**1,753**	**1,613**	**1,463**	**1,290**	**1,285**
91: Prevention Quality Acute Composite	**480**	**424**	**380**	**345**	**371**
92: Prevention Quality Chronic Composite	**1,273**	**1,189**	**1,083**	**945**	**914**

*Cell sizes suppressed

Table 9 presents the number and percentage of adults aged 18 to 64 years who were enrolled in an MCO with at least one inpatient admission and with PQI admissions during the evaluation period. Overall, the percentage of adults enrolled in HealthChoice with a PQI designation decreased from 1.2 percent in CY 2012 to 0.9 percent in CY 2016. This downward trend is consistent with the observed decrease in the percentage of participants with at least one inpatient admission. Among HealthChoice adults with an inpatient admission, the percentage of participants with a PQI-designated admission increased from 9.5 percent in CY 2012 to 11.3 percent in CY 2016.

[18] This measure presents the number of potentially-avoidable admissions per 100,000 participants. The methodology for calculating inpatient admission rates only counts MCO inpatient stays.

Table 9. Potentially Avoidable Admission Rates among Participants Aged 18–64 Years with ≥1 Inpatient Admission, CY 2012–CY 2016[19]*

Year	# of Participants in HealthChoice	# of Participants with ≥1 MCO Admissions	% of Participants with ≥1 MCO Admission	# of Participants with Any PQI	% of Participants with Any PQI	% of Participants With ≥1 MCO Admission who had a PQI
CY 2012	364,528	45,106	12.4%	4,298	1.2%	9.5%
CY 2013	379,132	44,599	11.8%	4,049	1.1%	9.1%
CY 2014	636,713	57,720	9.1%	6,518	1.0%	11.3%
CY 2015	687,725	54,585	7.9%	6,375	0.9%	11.7%
CY 2016	675,447	56,294	8.3%	6,371	0.9%	11.3%

*This measure includes only MCO inpatient admissions.

Section II Summary

This section of the report addressed the extent to which the HealthChoice program provides participants with a medical home by assessing appropriateness of service utilization. In reviewing appropriateness of care, potentially-avoidable ED visits decreased by 4.6 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 1.2 percent in CY 2012 to 0.9 percent in CY 2016. This decrease is consistent with the overall decrease in the percentage of adult participants with at least one inpatient admission.

[19] 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. The Department has an extensive system for quality measurement and improvement that uses nationally-recognized performance standards. Quality activities include the activities conducted by the Department's External Quality Review Organization (EQRO), which consist of Systems Performance Review, EPSDT (Healthy Kids) review, Performance Improvement Project (PIP) validation, and encounter data validation. Other quality activities include the CAHPS survey of consumer satisfaction, value-based purchasing (VBP) program, and HEDIS quality measurements.[20] HEDIS data are validated by independent, certified auditors to ensure that all plans collect data use an identical methodology, and allowing for meaningful comparisons across health plans.[21] The Department 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

The Department 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 (MetaStar, Inc., 2017). 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. The Department compares health plan rates for immunization Combinations Two and Three.

[20] A copy of the 2016 Annual Technical Report can be found at https://mmcp.health.maryland.gov/healthchoice/Documents/2016%20Annual%20Technical%20Report.pdf.
[21] A copy of the HEDIS 2017 results can be found at https://mmcp.health.maryland.gov/healthchoice/Documents/2017-09-27-HEDIS-Executive-Summary-Report-Updated.pdf.

Table 10 presents the immunization and well-child measures for the HealthChoice population. HealthChoice performed above the national HEDIS mean across all measures from CY 2012 through CY 2016. Key findings from the table include the following:

- The percentage of two-year-old children who received immunization Combination Two decreased slightly from 83.8 percent in CY 2015 to 82.2 percent in CY 2016.
- The percentage of two-year-old children who received immunization Combination Three decreased from 82.1 percent in CY 2015 to 80.1 percent in CY 2016.
- The percentage of 15-month-old infants who received at least five well-child visits increased from a low of 79.5 percent in CY 2014 to 82.2 percent in CY 2016. The CY 2016 rate, however, is 1.7 percentage points lower than the rate in CY 2012.
- The percentage of children aged three to six years who received at least one well-child visit decreased by 1.4 percentage points between CY 2015 and CY 2016.
- The percentage of adolescents aged 12 to 21 years who received at least one well-care visit decreased by 1.0 percentage points between CY 2015 and CY 2016.

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

Table 10. HEDIS Immunizations and Well-Child Visits: HealthChoice Compared with the National HEDIS Mean, CY 2012–CY 2016*

HEDIS Measures	CY 2012	CY 2013	CY 2014	CY 2015	CY 2016
Childhood Immunization Status: Combination 2					
HealthChoice	80.2%	80.9%	76.5%	83.8%	82.2%
National HEDIS Mean	+	+	+	+	+
Childhood Immunization Status: Combination 3					
HealthChoice	77.7%	79.1%	73.5%	82.1%	80.1%
National HEDIS Mean	+	+	+	+	+
Well-Child Visits: 15 Months of Life					
HealthChoice	83.9%	85.7%	79.5%	81.8%	82.2%
National HEDIS Mean	+	+	+	+	+
Well-Child Visits: 3- to 6-year-olds					
HealthChoice	82.2%	84.0%	82.0%	82.7%	81.3%
National HEDIS Mean	+	+	+	+	+
Well-Care Visits: Adolescents					
HealthChoice	65.4%	67.3%	62.1%	65.6%	64.6%
National HEDIS Mean	+	+	+	+	+

*The HealthChoice averages in CY 2014 were affected by the inclusion of HEDIS rates from newer MCOs.

EPSDT (Healthy Kids) 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 proactive manner. Maryland's EPSDT program aims to support access and increase the availability of quality health care. The Department has a Healthy Kids Program, whose nurse consultants certify HealthChoice providers in receiving EPSDT training, support the MCOs, and educate them on new EPSDT requirements. The Healthy Kids Program 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.

The goal of the EPSDT (Healthy Kids) 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 the Department'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.

Between CY 2012 and CY 2016, provider compliance increased for three of the five EPSDT components (Table 11). These components are health and developmental history, comprehensive physical exam, and health education/anticipatory guidance. The HealthChoice Aggregate Total score remained stable during the evaluation period (Delmarva Foundation, 2017). Despite slight variations, all components and the aggregate total have remained above the minimum compliance score of 75 percent through CY 2014. In CY 2015, the minimum compliance score was raised to 80 percent. Four of the five EPSDT components achieved this elevated benchmark, with Laboratory Tests/At-Risk Screenings being the exception. In CY 2016, all of the EPSDT

components and the aggregate total achieved the elevated benchmark of 80 percent. MCOs use the review results to develop education efforts to inform participants and providers about EPSDT services.

Table 11. HealthChoice MCO Aggregate Composite Scores for Components of the EPSDT/Healthy Kids Review, CY 2012–CY 2016*

EPSDT Components	CY 2012	CY 2013	CY 2014	CY 2015	CY 2016
Health and Developmental History	89%	89%	88%	92%	92%
Comprehensive Physical Exam	93%	91%	93%	93%	96%
Laboratory Tests/At-Risk Screenings	80%	77%	76%	78%	85%
Immunizations	86%	84%	83%	84%	85%
Health Education/Anticipatory Guidance	92%	89%	91%	92%	95%
HealthChoice Aggregate Total	**89%**	**87%**	**88%**	**89%**	**91%**

*The minimum compliance score was raised to 80 percent in CY 2015.

Childhood Lead Testing

The Department 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, the Department 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.[22] The Department also includes blood lead testing measures in several of its quality assurance activities, including the VBP and Managing-for-Results (MFR) 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. The Department 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.[23] A child's lead test must have occurred during the calendar year or the year prior.

Table 12 presents the lead testing rates for children aged 12 through 23 months and 24 through 35 months between CY 2012 and CY 2016. In CY 2016, the lead testing rate was 60.7 percent for children aged 12 through 23 months and 78.3 percent for children aged 24 through 35 months. Rates for both age groups increased slightly over the five-year evaluation period.

[22] Starting in CY 2017, this reporting increased from quarterly to monthly.
[23] The lead testing measures count lead tests reported through Medicaid administrative data and the Childhood Lead Registry, which is maintained by the Maryland Department of the Environment.

Table 12. 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 2012–CY 2016

Age Group (Months)	CY 2012	CY 2013	CY 2014	CY 2015	CY 2016
12–23	57.9%	58.7%	59.9%	60.7%	60.7%
24–35	75.6%	76.6%	75.6%	77.6%	78.3%

Table 13 presents the number of children in HealthChoice aged zero to six years who received a lead test as reported to the Maryland Department of the Environment (MDE) Childhood Lead Registry (CLR) during CY 2012 and CY 2016, as well as the number and percentage of those children who had an elevated blood lead level. An elevated blood level is defined as greater than or equal to 5 micrograms per deciliter.

The number of children who received a lead test remained stable between CY 2012 and CY 2016, but the percentage of children with an elevated blood lead level decreased from 3.6 percent in CY 2012 to 2.9 percent in CY 2016.

Table 13. HealthChoice Children Aged 0–6 Years with an Elevated Blood Lead Level, CY 2012 and CY 2016

Year	Number of Children with a Lead Test	Children with an Elevated Blood Lead Level (≥5µg/dL)	
		#	%
CY 2012	52,950	1,885	3.6%
CY 2016	52,983	1,533	2.9%

In 2012, the Centers for Disease Control and Prevention (CDC) issued the recommendation to 1) remove the "level of concern" language from 10 micrograms per deciliter and replace it with the "reference level" of five micrograms per deciliter and 2) require statewide testing of all children. Maryland adopted these recommendations for all children born on or after January 1, 2015.

In 2016, Medicaid submitted a Joint Chairman's Report with additional recommendations to improve lead testing rates. Recommendations include implementing a PIP with HealthChoice MCOs in coming years to ensure that all children receive blood lead tests; employing a Health Services Initiative State Plan Amendment to provide CHIP funding for lead abatement in homes of Maryland children; and improving data quality of the CLR, including complete collection of required information and addition of new data fields such as Medicaid identification number. These recommendations will help accelerate progress toward the goals of increasing screening rates among children and improving children's long-term health outcomes.

Breast Cancer Screening

Breast cancer is the most prevalent type of cancer among women (U.S. Cancer Statistics Working Group, 2016). The U.S. Cancer Statistics Working Group (2016) reported a national breast cancer incidence rate of 123.7 cases per 100,000 women in 2013.[24] In Maryland, the breast cancer incidence rate was 134.1 cases per 100,000 women, which is significantly higher than the national average (U.S. Cancer Statistics Working Group, 2016). Breast cancer is easier to treat when detected early, and women have a greater chance of survival (CDC, 2014). According to the CDC (2014), mammograms are the most effective technique for early detection of breast cancer. 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 for this measure.[25]

Table 14 presents the percentage of women in HealthChoice who received a mammogram for breast cancer screening in CY 2012 through CY 2016 (MetaStar, Inc., 2017). Between CY 2012 and CY 2016, the percentage of women aged 40 through 64 years who received a mammogram increased by nearly 20 percentage points. Maryland performed above the national HEDIS mean in CY 2013 through CY 2016. A possible explanation for the rate increase could be the addition of breast cancer screening to the VBP program in CY 2014.

Table 14. Percentage of Women in HealthChoice Aged 40-64 Years Who Received a Mammogram for Breast Cancer Screening, Compared with the National HEDIS Mean, CY 2012–CY 2016*

	CY 2012	CY 2013	CY 2014	CY 2015	CY 2016
Percentage of Women in HealthChoice Aged 40–64 Years who Received a Mammogram	51.0%	58.3%	67.9%	70.0%	69.8%
National HEDIS Mean	-	+	+	+	+

*The HealthChoice averages in CY 2014 were affected by the inclusion of HEDIS rates from newer MCOs.

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 years (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

[24] These are the most recent data available.
[25] 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.

cervical cancer screening using one of these criteria: 1) women aged 21 to 64 years who had cervical cytology performed every three years, or 2) women aged 30 to 64 years who had cervical cytology/human papillomavirus (HPV) co-testing performed every five years.

Table 15 presents the percentage of women aged 21 to 64 years in HealthChoice who received a cervical cancer screening in CY 2012 through CY 2016. The screening rate decreased by 10.3 percentage points between CY 2013 and CY 2016. This decline in performance may be explained by the inclusion of a new HealthChoice MCO into the average rate calculation. HEDIS scores were dramatically affected because the methodology uses a simple average—rather than a weighted average—to calculate overall HealthChoice HEDIS scores. Despite these outliers, HealthChoice performed above the national HEDIS mean throughout the measurement period.

Table 15. Percentage of Women in HealthChoice Aged 21–64 Years Who Received a Cervical Cancer Screening, Compared with the National HEDIS Mean, CY 2012–CY 2016*

	CY 2012	CY 2013	CY 2014	CY 2015	CY 2016
Percentage of Women in HealthChoice Aged 21–64 Years Who Received a Cervical Cancer Screening	73.7%	75.2%	65.8%	65.1%	64.9%
National HEDIS Mean	+	+	+	+	+

*HealthChoice averages in CYs 2014 and 2015 were affected by the inclusion of HEDIS rates from newer MCOs.

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 fourth most commonly diagnosed cancer among women and men, as well as the third-leading cause of cancer mortality.[26] The expansion of Medicaid coverage to childless adults and additional parents and caretakers has removed a major access barrier for age-eligible adults with low incomes 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 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

[26] Maryland Comprehensive Cancer Control Plan 2016 - 2020, Maryland Department of Health and Mental Hygiene. Available at http://phpa.dhmh.maryland.gov/cancer/cancerplan/Documents/MD%20Cancer%20Program_508C%20with%20cover.pdf. Last accessed April 20, 2017.

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 16 shows the percentage of HealthChoice participants who received at least one of the three appropriate screenings for colorectal cancer during the study period. Please note that the HEDIS specifications include individuals through age 75 years, but HealthChoice only covers individuals through age 64 years. Thus, the data presented pertain to enrollees aged 50 through 64 years and are based exclusively on administrative data.[27] 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 must have also been enrolled as of the last day of the measurement year and could not have more than one gap of enrollment exceeding 45 days during each year of continuous enrollment. Given these noted variations in measure, these results should be interpreted for year-over-year trends, as opposed to a comparison between Medicaid enrollees and other populations.

Between CY 2012 and CY 2016, the percentage of enrollees aged 50 through 64 years who received a colorectal cancer screening decreased by 1.6 percentage points. Two of the screenings—flexible sigmoidoscopy and colonoscopy—can be completed within the prior four and nine years, respectively. The group of newly enrolled ACA 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. Additionally, the measure was modified for CY 2016 to include surgical procedures, which were not included in previous years. Overall, since decreasing in CY 2014 due to the effect of the ACA expansion, the colorectal cancer screening rate has largely rebounded compared with pre-expansion figures.

Table 16. Percentage of HealthChoice Participants Aged 50–64 Years Who Received a Colorectal Cancer Screening, CY 2012–CY 2016

	CY 2012	CY 2013	CY 2014	CY 2015	CY 2016
Percentage of HealthChoice Participants Aged 50–64 Years Who Received a Colorectal Cancer Screening	38.8%	38.7%	32.1%	35.0%	37.2%

[27] 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. The commercial measure relies on a hybrid 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 colorectal screening but switched between MCOs or FFS coverage over the course of the reference period, then the participant would be counted as up-to-date. The measure excludes participants with a diagnosis of colorectal cancer or removal of the colon from the denominator.

Care for Chronic Conditions

Medication Management for People with Asthma

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). The Department uses HEDIS to report medication management for people with asthma. This HEDIS asthma measure includes the percentage of five- to 64-year-olds identified as having persistent asthma and who were dispensed appropriate medication for least 50 or 75 percent of their treatment period. The purpose of asthma medications is to prevent or reduce airway inflammation and narrowing. If asthma medications are used correctly, asthma-related hospitalizations, ED visits, and missed school and work days decrease (CDC, n.d.a).

Table 17 presents the percentage of HealthChoice participants with persistent asthma who remained on asthma controller medication for at least 50 percent of their treatment period in CY 2012 through CY 2016 (MetaStar, Inc., 2017). The HealthChoice participants evaluated for this measure were between the ages of five and 64 years and were diagnosed with persistent asthma. In CY 2016, 55.8 percent of HealthChoice participants aged five through 64 years who were diagnosed with persistent asthma remained on asthma controller medication for at least 50 percent of their treatment period. The program outperformed the national HEDIS mean for the first time in CY 2015 but fell below in CY 2016.

Table 17. Percentage of HealthChoice Members Aged 5–64 Years with Persistent Asthma Who Remained on a Prescribed Controller Medication for at Least 50% of Their Treatment Period, CY 2012–CY 2016

	CY 2012	CY 2013	CY 2014	CY 2015	CY 2016
Percentage of HealthChoice Members Aged 5–64 Years with Persistent Asthma Who Remained on a Prescribed Controller Medication for at Least 50% of Their Treatment Period	46.3%	49.7%	51.5%	56.9%	55.8%
National HEDIS Mean	*	-	-	+	-

Table 18 presents the percentage of HealthChoice participants aged five through 64 years with persistent asthma who were prescribed a controller medication and remained on the medication for at least 75 percent of their treatment period in CY 2012 through CY 2016 (MetaStar, Inc., 2017). In CY 2016, this was 31.1 percent (up from 24.3 percent in CY 2012). HealthChoice outperformed the national HEDIS mean for the first time in CY 2015 but decreased to below the mean in CY 2016.

Table 18. Percentage of HealthChoice Members Aged 5–64 Years with Persistent Asthma Who Remained on a Prescribed Controller Medication for at Least 75% of Their Treatment Period, CY 2012–CY 2016

	CY 2012	CY 2013	CY 2014	CY 2015	CY 2016
Percentage of HealthChoice Members Aged 5–64 Years with Persistent Asthma Who Remained on a Prescribed Controller Medication for at Least 75% of Their Treatment Period	24.3%	25.8%	27.0%	34.1%	31.1%
National HEDIS Mean	*	-	-	+	-

* National HEDIS means are not available for CY 2012 because this was the first year this HEDIS measure was introduced.

Comprehensive Diabetes Care

Diabetes is a disease caused by the inability of the body to make or use the hormone insulin. Serious complications of diabetes include heart disease, kidney disease, stroke, and blindness. However, screening and treatment can reduce the burden of diabetes complications (CDC, 2016). 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 eye exams, HbA1c testing, and low-density lipoprotein cholesterol (LDL-C) screening. Measure definitions and key findings include the following:

- *Eye Exams*: This measure assesses the percentage of participants aged 19 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. The percentage of participants with diabetes who received an eye exam decreased by 7.8 percentage points to 61.5 percent in CY 2014. This decline continued through CY 2016, reaching 57 percent. Eye exams were removed from VBP incentive payments in CY 2015; the observed decrease could be a result of the reduced incentive for MCOs to provide this service.
- *HbA1c Testing*: This measure assesses the percentage of participants aged 19 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. The percentage of participants with diabetes who received an HbA1c test increased by 7.8 percentage points from CY 2012 to CY 2014 after being added to the VBP measures, although progress stalled in 2015 and 2016.
- *LDL-C Screening*: This measure assesses the percentage of participants aged 19 through 64 years with diabetes who received at least one LDL-C screening in the measurement year. This measure was retired in CY 2014. Before the measure was retired in CY 2014, the percentage of participants with diabetes who received an LDL-C screening increased by 0.8 percentage points (to 77.2 percent) during the measurement period.

Table 19 presents annual HealthChoice performance on the comprehensive diabetes care measures for CY 2012 through CY 2016 (MetaStar, Inc., 2017). HealthChoice consistently performed above the national HEDIS mean on eye exams throughout the evaluation period. HealthChoice performed above the national average rate for HbA1c testing in CY 2013 through CY 2016.

Table 19. Percentage of HealthChoice Members Aged 19–64 Years with Diabetes Who Received Comprehensive Diabetes Care, Compared with the National HEDIS Mean, CY 2012–CY 2014*

HEDIS Measures	CY 2012	CY 2013	CY 2014	CY 2015	CY 2016
Eye Exam (Retinal)					
HealthChoice	69.6%	69.3%	61.5%	60.2%	57.0%
National HEDIS Mean	+	+	+	+	+
HbA1c Test					
HealthChoice	81.2%	85.5%	89.0%	88.8%	88.9%
National HEDIS Mean	-	+	+	+	+
LDL-C Screening**					
HealthChoice	75.7%	77.2%	N/A	N/A	N/A
National HEDIS Mean	+	+			

*The HealthChoice averages in CY 2014 were affected by the inclusion of HEDIS rates from newer MCOs into the calculation.
**This measure was retired for CY 2014.

CAHPS Survey Results – Satisfaction with Providers

The Department uses the CAHPS survey to measure enrollees' satisfaction with their health care providers (WBA Research, 2017; WBA Research, 2015). The participant perspective regarding their providers is of key importance to the Department, as is ensuring that care coordination facilitates the utilization of appropriate settings of care. CAHPS asks survey respondents to measure "how well doctors communicate" and "coordination of care."

"How well doctors communicate" measures:

- How well personal doctor explains things, listens, and shows respect for what the participant says
- How often personal doctor spends enough time with the participant

"Coordination of care" measures:

- Participants' perception of whether their doctor is informed about the care he/she received from other doctors or providers

The possible survey responses for these two measures are "never," "sometimes," "usually," or "always." CAHPS survey respondents are also asked to rate their personal doctor and specialist seen most often on a scale of 0 to 10, where 0 is the worst rating and 10 is the best rating. HealthChoice participants' responses are compared with benchmarks from NCQA's Quality Compass.

In CY 2016, 92 percent of adult HealthChoice participants felt that their doctors communicate well, and 84 percent were satisfied with their coordination of care (Table 20). CY 2016 was the only year in the evaluation period in which HealthChoice rates for these measures were higher than the NCQA Quality Compass benchmarks, though only by one percentage point for each measure. In CY 2016, 80 percent of adult HealthChoice participants rated their personal doctor a score of 8, 9, or 10, and 81 percent of participants gave their specialist seen most often these scores (Table 20). Across the evaluation period, NCQA benchmarks for personal doctor and specialist ratings of 8, 9, or 10 outranked HealthChoice percentages.

Table 20. CAHPS Measures – How Well Doctors Communicate, Satisfaction with Coordination of Care, Rating of Personal Doctor, and Rating of Specialist Seen Most Often: Adult HealthChoice Participants Compared to the NCQA Benchmark, CY 2012–CY 2016

	CY 2012	CY 2013	CY 2014	CY 2015	CY 2016
How Well Doctors Communicate: Percentage of participants who responded "Usually" or "Always"					
HealthChoice	89%	89%	90%	91%	92%
NCQA Quality Compass Benchmark	89%	90%	91%	91%	91%
Satisfaction with Coordination of Care: Percentage of participants who responded "Usually" or "Always"					
HealthChoice	78%	79%	79%	80%	84%
NCQA Quality Compass Benchmark	79%	79%	82%	82%	83%
Personal Doctor: Percentage of participants who rated a score of 8, 9, or 10					
HealthChoice	76%	77%	76%	79%	80%
NCQA Quality Compass Benchmark	78%	79%	80%	80%	81%
Specialist Seen Most Often: Percentage of participants who rated a score of 8, 9, or 10					
HealthChoice	77%	77%	79%	79%	81%
NCQA Quality Compass Benchmark	79%	80%	81%	80%	82%

In each year of the evaluation period, 94 percent of parents and guardians of children enrolled in HealthChoice responded "usually" or "always" to how well doctors communicate (Table 21). The NCQA percentages for this measure were equal to the HealthChoice percentages or lower by one percentage point. In CY 2016, 80 percent of parents and guardians responded that they were "usually" or "always" satisfied with their child's coordination of care, which was three percentage points lower than the NCQA benchmark. For rating of personal doctor, 90 percent of parents and guardians rated their child's doctor a score of 8, 9, or 10 in CY 2016, which is

slightly higher than the NCQA benchmark of 89 percent. Across the evaluation period, lower percentages of parents and guardians of children enrolled in HealthChoice gave their child's specialist a high rating compared to the national benchmarks. In CY 2016, 85 percent of survey respondents gave their child's specialist seen most often a score of 8, 9, or 10; the national benchmark was 87 percent.

Table 21. CAHPS Measures – How Well Doctors Communicate, Satisfaction with Coordination of Care, Rating of Personal Doctor, and Rating of Specialist Seen Most Often: Parents and Guardians of Child HealthChoice Participants Compared to the NCQA Benchmark, CY 2012–CY 2016

	CY 2012	CY 2013	CY 2014	CY 2015	CY 2016
How Well Doctors Communicate: Percentage of participants who responded "Usually" or "Always"					
HealthChoice	94%	94%	94%	94%	94%
NCQA Quality Compass Benchmark	93%	93%	93%	93%	94%
Satisfaction with Coordination of Care: Percentage of participants who responded "Usually" or "Always"					
HealthChoice	80%	82%	81%	81%	80%
NCQA Quality Compass Benchmark	80%	81%	82%	83%	83%
Personal Doctor: Percentage of participants who rated a score of 8, 9, or 10					
HealthChoice	87%	89%	89%	90%	90%
NCQA Quality Compass Benchmark	87%	88%	88%	88%	89%
Specialist Seen Most Often: Percentage of participants who rated a score of 8, 9, or 10					
HealthChoice	82%	80%	83%	82%	85%
NCQA Quality Compass Benchmark	85%	85%	85%	86%	87%

In CY 2016, the percentage of parents and guardians of children with chronic conditions enrolled in HealthChoice who responded "usually" or "always" to how well doctors communicate was 94 percent—equal to the NCQA benchmark (Table 22). The percentage of parents and guardians who approved of the coordination of care for their child decreased from a high of 84 percent in CY 2015 to 80 percent in CY 2016, which is lower than the NCQA benchmark of 83 percent. The percentage of parents and guardians who gave their child's personal doctor a high rating equaled or slightly exceeded the national benchmarks across the evaluation period. In CY 2016, 89 percent of survey respondents gave their child's personal doctor a score of 8, 9, or 10; 83 percent gave their child's specialist seen most often a high rating. Across the evaluation period, the percentage of parents and guardians who gave their child's specialist a high rating were lower than the national benchmarks.

Table 22 CAHPS Measures – How Well Doctors Communicate, Satisfaction with Coordination of Care, Rating of Personal Doctor, and Rating of Specialist Seen Most Often: Parents and Guardians of Children with Chronic Conditions in HealthChoice Compared to the NCQA Benchmark, CY 2012–CY 2016

	CY 2012	CY 2013	CY 2014	CY 2015	CY 2016
How Well Doctors Communicate: Percentage of participants who responded "Usually" or "Always"					
HealthChoice	93%	94%	95%	95%	94%
NCQA Quality Compass Benchmark	93%	93%	94%	94%	94%
Satisfaction with Coordination of Care: Percentage of participants who responded "Usually" or "Always"					
HealthChoice	79%	81%	83%	84%	80%
NCQA Quality Compass Benchmark	80%	80%	82%	82%	83%
Personal Doctor: Percentage of participants who rated a score of 8, 9, or 10					
HealthChoice	86%	87%	88%	88%	89%
NCQA Quality Compass Benchmark	86%	87%	87%	88%	89%
Specialist Seen Most Often: Percentage of participants who rated a score of 8, 9, or 10					
HealthChoice	82%	82%	83%	84%	83%
NCQA Quality Compass Benchmark	85%	85%	85%	86%	86%

Performance Improvement Projects

The Department also requires HealthChoice MCOs to conduct PIPs, which are designed to achieve sustained improvement over time in targeted clinical care or non-clinical care areas. The Department's EQRO evaluates PIPs submitted by the MCOs according to CMS's published standards.

HealthChoice MCOs conduct and report on two PIPs annually. Over the years, these PIPs have changed. The Controlling High Blood Pressure PIP replaced the Substance Use PIPs in CY 2013. The Asthma Medication Ratio PIP replaced the Adolescent Well Care PIP in CY 2016. Table 23 outlines the PIPs conducted during the evaluation period.

Table 23. PIPs Conducted, CY 2012–CY 2016

Year	PIPs Conducted	
CY 2012	Adolescent Well Care	Substance Use
CY 2013	Adolescent Well Care	Controlling High Blood Pressure
CY 2014	Adolescent Well Care	Controlling High Blood Pressure
CY 2015	Adolescent Well Care	Controlling High Blood Pressure
CY 2016	Asthma Medication Ratio	Controlling High Blood Pressure

Substance Use

Both Substance Use PIPs focused on increasing the number of individuals who initiated alcohol and other drug dependence treatment, along with increasing the number of individuals who engaged in alcohol and other drug dependence treatment, according to HEDIS technical specifications. Unlike other PIPs, two measures were included for substance use. Table 24 displays the results from CY 2012 for those measures by MCO. United Healthcare had the highest percentage of enrollees who initiated alcohol and drug dependence treatment, followed by Maryland Physicians Care and Amerigroup. Maryland Physicians Care had the highest percentage of enrollees who were continually engaged in alcohol and drug dependence treatment, followed by Amerigroup and United Healthcare. SUD services were carved out of the managed care benefit package in CY 2015.

Table 24. Substance Use PIP Indicator Rates, CY 2012

Measure	Amerigroup	Jai	Maryland Physicians Care	MedStar	Priority Partners	United Healthcare
Initiation of Alcohol and Other Drug Dependence Treatment	41.9%	36.8%	43.0%	27.4%	36.5%	47.3%
Engagement of Alcohol and Other Drug Dependence Treatment	19.7%	15.4%	21.0%	5.3%	17.6%	18.5%

Adolescent Well Care

MDH initiated the Adolescent Well Care PIP in 2012 using HEDIS 2012 measurement rates as the baseline measurement for MCOs. Maryland's EPSDT Medical Record Review program measures health and developmental history; comprehensive physical exam; laboratory tests/at-risk screening; immunizations; and health education and anticipatory guidance for children and adolescents through age 20. The EPSDT 12 to 20-year-old age group consistently scores lower than the other four age groups in each of these categories. In addition, the underutilization of an adolescent well-care visit yields missed opportunities for prevention, early detection, and treatment. Therefore, increasing routine adolescent utilization is an important health care objective for the Department.

The Adolescent Well-Care PIP focused on the number of adolescents aged 12 to 21 years who received at least one comprehensive well-care visit with a PCP or an OB/GYN during the measurement year, according to HEDIS technical specifications. Table 25 displays the results of this analysis by MCO.

Table 25. Adolescent Well-Care PIP Indicator Rates, CY 2012–CY 2015

Year	Amerigroup	Jai	Maryland Physicians Care	MedStar	Priority Partners	United Healthcare
CY 2012	68.1%	76.9%	60.2%	69.4%	67.6%	59.7%
CY 2013	67.9%	76.7%	65.8%	67.8%	61.6%	60.8%
CY 2014	64.7%	80.3%	68.3%	61.2%	68.8%	58.5%
CY 2015	67.9%	82.6%	73.2%	64.0%	72.8%	64.8%

Controlling High Blood Pressure

MDH initiated the Controlling High Blood Pressure PIP in 2014 using HEDIS 2014 measurement rates as the baseline for MCOs. High blood pressure is a serious condition that can lead to coronary artery disease, heart failure, stroke, kidney failure, and other health problems. According to the Maryland Behavioral Health Risk Factor Surveillance System, an estimated 1.4 million adults in Maryland have high blood pressure.

The Controlling High Blood Pressure PIP focuses on increasing the percentage of members aged 18 to 85 years who had a diagnosis of hypertension and whose blood pressure was adequately controlled during the measurement year. Riverside Health of Maryland completed its first full year of operation in CY 2014 and was able to begin providing data for that year. Table 26 displays the results from CY 2013 to CY 2016, during which time the rates increased for five MCOs.

Table 26. Controlling High Blood Pressure PIP Indicator Rates, CY 2013–CY 2016

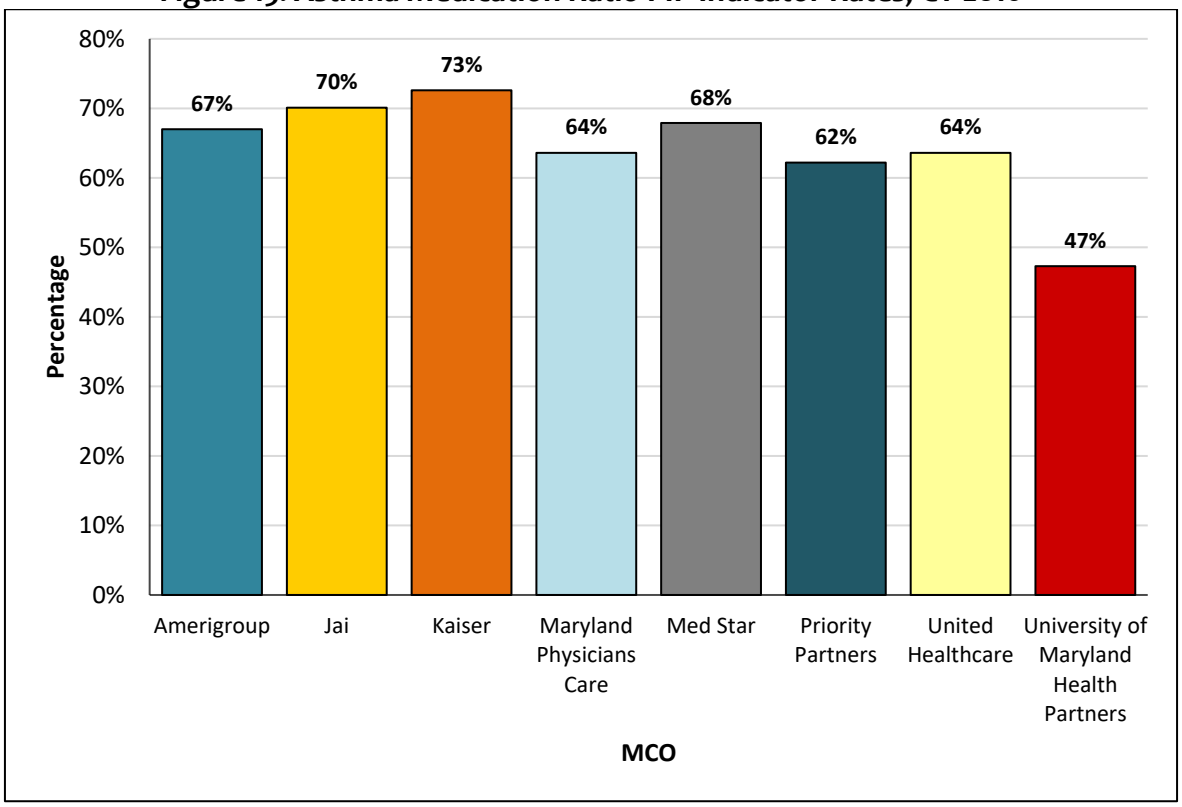
Year	Amerigroup	Jai	Maryland Physicians Care	MedStar	Priority Partners	Riverside	United Healthcare
CY 2013	49.0%	56.2%	46.8%	65.5%	57.0%	N/A	42.3%
CY 2014	63.9%	69.3%	61.4%	69.2%	59.5%	32.1%	50.9%
CY 2015	54.1%	76.4%	55.9%	71.2%	60.2%	48.2%	56.9%
CY 2016	63.1%	72.0%	68.7%	72.8%	51.1%	N/A	64.9%

Asthma

MDH initiated the Asthma Medication Ratio PIP in February 2017 using HEDIS 2017 measurement rates as the baseline for MCOs. Asthma is a chronic lung disease that affects Marylanders regardless of age, sex, race, or ethnicity. Although the exact cause of asthma is unknown and cannot be cured, it can be controlled with self-management, education, appropriate medical care, and avoiding exposure to environmental triggers.

The Asthma Medication Ratio PIP seeks to increase the percentage of members aged five to 64 years who were identified as having persistent asthma and had a ratio of controller medications to total asthma medications of 0.50 or greater during the measurement year. Figure 15 shows the results for CY 2016 data.

Figure 15. Asthma Medication Ratio PIP Indicator Rates, CY 2016



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, participants in the HealthChoice program attained higher rates across all well-child and immunization measures than the national HEDIS mean for all years. Immunization Combination Two and Combination Three rates in the HealthChoice program increased over the evaluation period, rising by 2.2 percent and 3.4 percent, respectively. Regarding EPSDT, provider compliance increased for four of the five components, with all five components meeting the minimum compliance score of 80 percent.

Regarding preventive care for adults, HealthChoice performed above the national HEDIS mean for breast cancer screening (CY 2013 to CY 2016) and cervical cancer screening (CY 2012 to CY 2016). Breast cancer screening improved during the evaluation period by nearly 20

percentage points. For participants with diabetes, HbA1c testing rates improved during the evaluation period. The HbA1c testing rates were above the national HEDIS means for CY 2013 through CY 2016, and eye exams exceeded national HEDIS means in all years.

Beginning in CY 2014, the HealthChoice program had a large influx of adults who enrolled in Medicaid through the ACA expansion. These new participants took longer to engage in appropriate primary care treatment, which affected the scores of HEDIS measures that are based on service utilization. In addition, new MCOs joined the program in CY 2013 and CY 2014, and 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 more-established MCOs continued to have consistent quality results.

The CAHPS measures, which gauge participants' satisfaction with their care providers' communication and care coordination, show that HealthChoice has remained within a few percentage points of national benchmarks throughout the evaluation period. HealthChoice has either improved or remained steady on each subcomponent of the CAHPS measure from CY 2012 to CY 2016. Two of the PIPs undertaken during the evaluation period—Adolescent Well-Care and Controlling High Blood Pressure—continued across multiple years, allowing trends to be established. The Adolescent Well-Care PIP resulted in improvement by four MCOs, while the Controlling High Blood Pressure PIP resulted in improvement by five MCOs.

Section IV. Special Topics

This section of the report discusses numerous special topics, including services provided under the dental and behavioral health carve-outs, services provided to children in foster care, reproductive health services, services provided to individuals with HIV/AIDS, services provided to individuals with diabetes, the REM program, and access to care stratified by race and ethnicity. Unless otherwise stated, all measures in this section are calculated for HealthChoice participants with any period of enrollment during the calendar year.

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. In an effort to increase access to oral health care and service utilization, the Secretary of Health convened the Maryland Dental Action Committee (MDAC) in 2007. MDAC reviewed dental reports and data and presented its final report to the Department.[28] Maryland's current oral health achievements are a direct result of the state's progress in implementing MDAC's 2007 key recommendations, which called for increasing access to oral health services through changes to Maryland Medicaid and expanding the public health dental infrastructure. Expanded access to dental care has also been achieved through the following initiatives of the Medicaid program and the Department's Office of Oral Health:

- Increased dental provider payment rates beginning in 2008, with plans to increase rates further as the budget allows;
- Implemented an ASO in July 2009 to oversee Medicaid dental benefits for pregnant women, children, and adults in the REM program (the Maryland Healthy Smiles Dental Program);
- Authorized 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 treatment provided to children between nine months and five years of age; and
- Allowed public health dental hygienists to perform services within their scope of practice without onsite supervision and prior examination of the patient by a dentist, permitting public health dental hygienists to provide services outside of a dental office.

At the conclusion of the 2013 legislative session, the Maryland General Assembly requested the Department 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

[28] MDAC's 2007 report can be found here: https://phpa.health.maryland.gov/oralhealth/Documents/DACFullReport2007.pdf

the damage from caries, protect and preserve the tooth structure, reestablish adequate function, restore aesthetics (where applicable), and provide ease in maintaining good oral hygiene. In its report, the Department made several recommendations designed to improve access to pediatric dental surgery:[29]

- Increase the payment rate for anesthesia (CPT code 00710) to 100 percent of the Medicare rate;
- Encourage hospitals to offer operating room (OR) block times for dental cases to improve access to hospital facilities by dentists;
- Establish a facility rate to pay ambulatory surgery centers (ASCs) to increase the number of sites where dentists may perform OR procedures and reduce pressure on hospitals; and
- Require hospitals to report stipends paid to hospital-based physicians and anesthesiologists as part of a larger analysis—conducted by the Department in partnership with the Health Services Cost Review Commission—of the proper reimbursement rate for providers.

The Department continues to monitor a variety of dental service utilization measures that it publishes in the Annual Oral Health Legislative Report.[30] Table 27 below displays the dental service utilization rate for children (aged 4 to 20 years), which increased from 67.8 percent in CY 2012 to 68.5 percent in CY 2016.

Table 27. Number of Children Aged 4-20 Years Enrolled in Medicaid* for at Least 320 Days Who Received Dental Services, CY 2012–CY 2016

Year	Total Number of Enrollees	Enrollees Receiving One or More Dental Services	Percentage Receiving a Service
CY 2012	385,132	261,077	67.8%
CY 2013	405,873	277,272	68.3%
CY 2014	423,625	286,713	67.7%
CY 2015	404,118	278,796	69.0%
CY 2016	440,100	301,367	68.5%

*The study population for CY 2012 through CY 2016 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, X02, W01, and P10.

Dental care is also a benefit for pregnant women. To increase awareness of this benefit, the ASO contracted to administer the Maryland Healthy Smiles Dental program conducts targeted

[29] https://mmcp.health.maryland.gov/Documents/pediatricdentalJCRfinal9-13.pdf
[30] https://mmcp.health.maryland.gov/Pages/Reports-and-Publications.aspx

communications, such as postcard and flyer mailings, to women enrolled in pregnancy-related coverage groups. During the waiver period, the ASO also participated in community-based events, such as Head Start Parent meetings and Women, Infants, and Children (WIC) meetings. The ASO is in the process of embarking on a comprehensive five-year plan designed to improve pregnant women's engagement in dental care. The heart of this program includes assignment of pregnant women to a dental home; enhanced individualized outreach by phone and through other mechanisms to ensure that pregnant women are aware of their dental benefits and know how to access services; and the formation of partnerships with key partners, such as OB/GYN providers.

Table 28 presents the percentage of pregnant women aged 21 years and older who were enrolled in Medicaid for at least 90 days and received at least one dental service between CY 2012 and CY 2016. Dental service utilization decreased from 29.8 percent in CY 2012 to 27.0 percent in CY 2014, showed a gradual increase to 27.3 percent in CY 2015, and ultimately decreased to 26.1 percent in CY 2016.

Table 28. Number and Percentage of Pregnant Women Aged 21+ Years with at Least 90 Days in Medicaid* Who Received a Dental Service, CY 2012–CY 2016

Year	Total Number of Enrollees	Number of Enrollees with at Least One Visit	Percentage with a Dental Visit
CY 2012	22,162	6,613	29.8%
CY 2013	22,698	6,175	27.2%
CY 2014	25,456	6,878	27.0%
CY 2015	26,795	7,324	27.3%
CY 2016	29,014	7,562	26.1%

*The study population for CY 2012 through CY 2016 included all qualifying pregnant women in Maryland's Medical Assistance program, including FFS and HealthChoice MCO enrollees. The following coverage groups were excluded from the analysis: S09, X02, W01, and P10.

Mental Health Services

HealthChoice participants in need of mental health services are referred to Maryland's Public Behavioral Health System,[31] but they continue to receive medically-necessary somatic care through their MCOs. Mental health services for HealthChoice enrollees are funded through Medicaid and administered by an ASO, Beacon Health Options (formerly ValueOptions).

[31] Previously known as the Public Mental Health System; the name was changed with the addition of substance use disorder services to the carve-out in CY 2015.

Table 29 displays the key demographic characteristics of HealthChoice participants with a diagnosis of an MHD.[32] Black and White participants made up the majority of participants with an MHD. The percentage of participants with an MHD who were Black decreased across the measurement period: from 49.7 percent in CY 2012 to 45.6 percent in CY 2016. In each year of the evaluation period, the majority of participants with an MHD were female. Since CY 2012, the percentage of participants with an MHD residing in Baltimore City gradually declined, with corresponding increases in the Baltimore and Washington Suburban regions. By CY 2016, the majority of participants with an MHD lived in the Baltimore Suburban region. In CY 2012, children and adults made up 50.3 percent and 49.7 percent, respectively, of participants with an MHD. The proportion of adults rose to 61.3 percent in CY 2016. These increases can be attributed to the large influx of adults due to the ACA expansion.

Table 29. Demographic Characteristics of HealthChoice Participants with an MHD, CY 2012–CY 2016

	CY 2012	CY 2013	CY 2014	CY 2015	CY 2016
Demographic Characteristic	**% of Total**	**% of Total**	**% of Total**	**% of Total**	**% of Total**
Race					
Asian	0.9%	1.0%	1.1%	1.1%	1.2%
Black	49.7%	49.3%	46.5%	45.9%	45.6%
White	40.6%	40.4%	42.6%	41.9%	41.1%
Hispanic	4.7%	5.0%	4.5%	4.7%	4.8%
Native American	0.3%	0.3%	0.3%	0.3%	0.3%
Other	3.8%	4.1%	5.1%	6.0%	7.1%
Total	**100%**	**100%**	**100%**	**100%**	**100%**
Sex					
Female	56.2%	56.2%	54.4%	54.4%	54.1%
Male	43.8%	43.8%	45.7%	45.6%	45.9%
Total	**100%**	**100%**	**100%**	**100%**	**100%**
Region					
Baltimore City	29.6%	28.3%	27.6%	27.1%	26.8%
Baltimore Suburban	28.3%	29.2%	29.9%	30.1%	30.0%
Eastern Shore	11.7%	11.8%	11.3%	11.3%	11.3%
Southern Maryland	4.3%	4.5%	4.6%	4.7%	4.6%

[32] Individuals are identified as having an MHD if they have any ICD-10 diagnosis codes that begin with F200-203, F205, F2081, F2089, F209, F21-24, F250, F251, F258, F259, F28-29, F301-304, F308-325, F328-334, F338-341, F348-349, F39-45, F48, F50, F53-54, F60, F63-66, F68-69, F843, F900-902, F908-913, F918-919, F930, F938-942, F948-949, F980-981, F984, F9888-989, F99, G21, G24-25, R45, O99, Z046; OR any ICD-9 diagnosis codes that begin with 295-302, 307-309, 311- 314, 332.1, 333.90, 333.99, 648 according to the COMAR definition of MHD.

Demographic Characteristic	CY 2012 % of Total	CY 2013 % of Total	CY 2014 % of Total	CY 2015 % of Total	CY 2016 % of Total
Washington Suburban	15.3%	15.5%	15.8%	16.4%	16.9%
Western Maryland	10.6%	10.5%	10.5%	10.3%	10.3%
Out of State	0.3%	0.3%	0.2%	0.2%	0.1%
Total	**100%**	**100%**	**100%**	**100%**	**100%**
Age Group (Years)					
0-18	50.3%	50.6%	39.6%	39.4%	38.7%
19-64	49.7%	49.4%	60.5%	60.7%	61.3%
Total	**100%**	**100%**	**100%**	**100%**	**100%**
Total Participants	**109,575**	**113,395**	**153,809**	**169,824**	**178,832**

The Department monitors the extent to which participants with an MHD access ambulatory care services. An ambulatory care visit is defined as contact with a doctor or nurse practitioner in a clinic, physician's office, or hospital outpatient department for a somatic concern, as well as visits related to MHDs and SUDs. In CY 2016, 92.6 percent of all participants with an MHD—which includes both participants diagnosed with only an MHD and those with a co-occurring MHD and SUD—visited a health care provider for an ambulatory care visit (Table 30). Across the measurement period, the ambulatory care visit rate among all participants with an MHD increased from CY 2012 to CY 2013, but decreased slightly in CY 2014 and CY 2015 before increasing slightly in CY 2016. This decrease was likely influenced by the influx of new ACA participants in CY 2014. Overall, participants who are enrolled in an ACA expansion coverage group have a lower rate of ambulatory care utilization than participants enrolled in other coverage groups.

In each year of the evaluation period, participants with a co-occurring MHD and SUD had a similar rate of ambulatory care utilization as participants with only an MHD. In CY 2016, the ambulatory care visit rate was 91.3 percent among those with an MHD and SUD, and 92.9 percent for those with only an MHD.

Table 30. HealthChoice Participants Who Received an Ambulatory Care Visit, by MHD Status, CY 2012–CY 2016

Year	Total Number of Participants	At Least One Ambulatory Care Visit	
		Number of Participants	Percentage of Total Participants
MHD Only			
CY 2012	96,333	85,880	89.1%
CY 2013	99,978	93,469	93.5%
CY 2014	128,733	120,059	93.3%
CY 2015	142,223	131,875	92.7%
CY 2016	148,186	137,679	92.9%
MHD + SUD			
CY 2012	13,242	11,732	88.6%
CY 2013	13,417	12,633	94.2%
CY 2014	25,076	23,072	92.0%
CY 2015	27,601	25,257	91.5%
CY 2016	30,646	27,973	91.3%
Total			
CY 2012	109,575	97,612	89.1%
CY 2013	113,395	106,102	93.6%
CY 2014	153,809	143,131	93.1%
CY 2015	169,824	157,132	92.5%
CY 2016	178,832	165,652	92.6%

Table 31 displays the number and percentage of all participants with an MHD who had at least one ED visit. This measure excludes ED visits that resulted in an inpatient hospital admission. Overall, the percentage of participants with an MHD diagnosis only who visited the ED dropped from 47.5 percent in CY 2012 to 44.3 percent in CY 2016. In each year of the evaluation period, participants with a co-occurring MHD and SUD had a higher rate of ED utilization compared to participants with an MHD only diagnosis. In CY 2016, 68.2 percent of participants with an MHD and an SUD visited the ED, compared with 44.3 percent of participants with only an MHD (no co-occurring SUD diagnosis).

Table 31. HealthChoice Participants Who Visited the ED, by MHD Status, CY 2012–CY 2016

Year	Total Number of Participants	At Least One ED Visit	
		Number of Participants	Percentage of Total Participants
MHD Only			
CY 2012	96,333	45,727	47.5%
CY 2013	99,978	46,674	46.7%
CY 2014	128,733	60,059	46.7%
CY 2015	142,223	63,326	44.5%
CY 2016	148,186	65,571	44.3%
MHD + SUD			
CY 2012	13,242	9,452	71.4%
CY 2013	13,417	9,522	71.0%
CY 2014	25,076	17,341	69.2%
CY 2015	27,601	18,685	67.7%
CY 2016	30,646	20,887	68.2%
Total			
CY 2012	109,575	55,179	50.4%
CY 2013	113,395	56,196	49.6%
CY 2014	153,809	77,400	50.3%
CY 2015	169,824	82,011	48.3%
CY 2016	178,832	86,458	48.4%

Substance Use Disorder Services

SUD services were provided under the HealthChoice MCO benefit package during the first three years of the measurement period.[33] In CY 2015, those services were "carved out" to join MHD services in the FFS public behavioral health system managed by Beacon Health Options. Table 32 presents the demographic characteristics of HealthChoice participants with a diagnosis of an SUD. The ACA expansion resulted in significant shifts in the demographic characteristics of the HealthChoice population as a whole during the measurement period. As more Whites enrolled in HealthChoice, participants with an SUD who were Black decreased from 44.1 percent in CY 2012 to 37.8 percent in CY 2016. A similar shift affected the gender distribution of

[33] Individuals were identified as having an SUD if they had a claim that met the COMAR 10.09.70.02 definition of SUD, which includes presence of one of the following: (ICD-10 diagnosis codes: F10-19, O99310-99315, O99320-99325, R780-785; OR ICD-9 diagnosis codes:291-292, 303-304, 305.0, 305.2-305.9),648.3; WITH (Revenue codes 0114, 0116, 0124, 0126, 0134, 0136, 0154, 0156, 0762, 0900, 0905-0906, 0911-0916, 0918-0919, 0944-0945, 0450-0452, 0456, 0459 OR Procedure codes 99.201-99.205, 99.211-99.215, J8499, J2315); HCPCS H0001, H0004, H0005, H0014-H0016, H0020, H0047, H2036, J8499 –OR Revenue code of "0100" and a provider type of "55."

HealthChoice participants with an SUD. Females made up the majority of participants diagnosed with an SUD from CY 2012 to CY 2013. However, from CY 2014 through CY 2016, the majority of participants with an SUD were male.

In each year of the measurement period, over half of participants with an SUD resided in Baltimore City and the surrounding Baltimore Suburban area. By CY 2016, 61.8 percent of participants with an SUD lived in these regions compared to 54.1 percent in CY 2012. A large majority of participants with an SUD were adults aged 19 to 64 years. The growth in the adult HealthChoice population as a result of the ACA expansion further increased the percentage of adults with an SUD compared to children aged. By CY 2016, 95.2 percent of participants with an SUD were adults—a 21.5 percentage point increase over CY 2012.

Table 32. Demographic Characteristics of HealthChoice Participants with an SUD, CY 2012–CY 2016

	CY 2012	CY 2013	CY 2014	CY 2015	CY 2016
Demographic Characteristics	**% of Total**	**% of Total**	**% of Total**	**% of Total**	**% of Total**
Race					
Asian	0.5%	0.5%	0.6%	0.6%	0.6%
Black	44.1%	42.3%	40.6%	38.8%	37.8%
White	45.0%	48.1%	52.3%	53.5%	53.9%
Hispanic	6.4%	5.1%	2.1%	1.9%	1.6%
Native American	0.3%	0.3%	0.4%	0.4%	0.4%
Other	3.7%	3.7%	4.0%	4.9%	5.7%
Total	**100%**	**100%**	**100%**	**100%**	**100%**
Sex					
Female	56.4%	57.5%	44.9%	44.4%	43.8%
Male	43.6%	42.5%	55.1%	55.6%	56.2%
Total	**100%**	**100%**	**100%**	**0%**	**100%**
Region					
Baltimore City	30.1%	30.8%	33.4%	32.0%	30.5%
Baltimore Suburban	24.0%	26.4%	29.5%	30.2%	31.3%
Eastern Shore	10.8%	11.3%	11.3%	12.1%	12.5%
Southern Maryland	5.2%	5.6%	5.4%	5.3%	5.7%
Washington Suburban	20.4%	16.1%	10.2%	9.8%	9.1%
Western Maryland	9.3%	9.6%	10.0%	10.5%	10.9%
Out of State	0.2%	0.2%	0.2%	0.2%	0.1%
Total	**100%**	**100%**	**100%**	**100%**	**100%**
Age Group (Years)					

	CY 2012	CY 2013	CY 2014	CY 2015	CY 2016
Demographic Characteristics	**% of Total**	**% of Total**	**% of Total**	**% of Total**	**% of Total**
0-18	26.3%	20.8%	7.8%	6.3%	4.9%
19-64	73.7%	79.2%	92.2%	93.7%	95.2%
Total	**100%**	**100%**	**100%**	**100%**	**100%**
Total Participants	**34,538**	**33,898**	**61,143**	**63,229**	**68,584**

The Department also monitors the extent to which Medicaid participants with an SUD access ambulatory care services. Table 33 displays the percentage of HealthChoice participants with an SUD who received an ambulatory care visit.

Across the measurement period, there was a decrease in ambulatory care utilization by participants with an SUD. The percentage of participants with any SUD diagnosis—which includes participants diagnosed with only an SUD and those with a co-occurring MHD and SUD—who had at least one ambulatory care visit increased from 78.1 percent in CY 2012 to 80.4 percent in CY 2016. As noted above, treatments for SUDs were included as part of the MCO benefit package until the end of CY 2014. Participants with a co-occurring MHD and SUD were consistently more likely to receive an ambulatory care visit than participants with only an SUD diagnosis. The rate of ambulatory care utilization among participants with a co-occurring MHD and SUD increased from 88.6 percent in CY 2012 to 91.3 percent in CY 2016.

Table 33. HealthChoice Participants Who Received an Ambulatory Care Visit, by SUD Status, CY 2012–CY 2016

Year	Total Number of Participants	At Least One Ambulatory Care Visit	
		Number of Participants	Percentage of Total Participants
SUD Only			
CY 2012	21,296	17,520	82.3%
CY 2013	20,481	16,642	81.3%
CY 2014	36,067	26,057	72.2%
CY 2015	35,628	25,355	71.2%
CY 2016	37,938	27,154	71.6%
MHD + SUD			
CY 2012	13,242	11,732	88.6%
CY 2013	13,417	12,633	94.2%
CY 2014	25,076	23,072	92.0%
CY 2015	27,601	25,257	91.5%
CY 2016	30,646	27,973	91.3%
Total			
CY 2012	34,538	26,972	78.1%

Year	Total Number of Participants	At Least One Ambulatory Care Visit	
		Number of Participants	Percentage of Total Participants
CY 2013	33,898	29,275	86.4%
CY 2014	61,143	49,129	80.4%
CY 2015	63,229	50,612	80.0%
CY 2016	68,584	55,127	80.4%

Table 34 displays the percentage of HealthChoice participants with an SUD who had at least one ED visit. This measure excludes ED visits that resulted in an inpatient hospital admission. Overall, the ED rate decreased between CY and CY 2016. There was an increase in the number of participants as a result of the ACA expansion in CY 2014.

Table 34. HealthChoice Participants Who Received an ED Visit, by SUD Status, CY 2012–CY 2016

Year	Total Number of Participants	At Least One ED Visit	
		Number of Participants	Percentage of Total Participants
SUD Only			
CY 2012	21,296	13,404	62.9%
CY 2013	20,481	12,495	61.0%
CY 2014	36,067	18,918	52.5%
CY 2015	35,628	18,010	50.6%
CY 2016	37,938	19,251	50.7%
MHD + SUD			
CY 2012	13,242	9,452	71.4%
CY 2013	13,417	9,522	71.0%
CY 2014	25,076	17,341	69.2%
CY 2015	27,601	18,685	67.7%
CY 2016	30,646	20,887	68.2%
Total			
CY 2012	34,538	22,856	66.2%
CY 2013	33,898	22,017	65.0%
CY 2014	61,143	36,259	59.3%
CY 2015	63,229	36,695	58.0%
CY 2016	68,584	40,138	58.5%

Table 35 presents the number and percentage of HealthChoice participants with an SUD who received at least one methadone replacement therapy or at least one medication-assisted treatment (MAT).[34] The percentage of all participants with an SUD who received at least one methadone replacement therapy consistently increased across the measurement period, from 25.6 percent in CY 2012 to 40.1 percent in CY 2016. The largest increase occurred between CY 2013 and CY 2014. This increase may be attributed to providing services to the ACA expansion population. A similar pattern can be seen for all participants with an SUD who received at least one MAT. Among this group, the percentage of participants who received at least one MAT increased by 21.9 percentage points, from 36.6 percent in CY 2012 to 58.5 percent in CY 2016.

Table 35. Number and Percentage of HealthChoice Participants Who Received a Methadone Replacement Therapy or MAT, by SUD Status, CY 2012–CY 2016

Year	Total Number of Participants	At Least One Methadone Replacement Therapy		At Least One MAT	
		Number of Participants	Percentage of Total Participants	Number of Participants	Percentage of Total Participants
SUD Only					
CY 2012	21,296	5,447	25.6%	7,794	36.6%
CY 2013	20,481	6,130	29.9%	8,794	42.9%
CY 2014	36,067	12,964	35.9%	18,474	51.2%
CY 2015	35,628	13,973	39.2%	20,164	56.6%
CY 2016	37,938	15,215	40.1%	22,185	58.5%
MHD and SUD					
CY 2012	13,242	3,997	30.2%	6,611	49.9%
CY 2013	13,417	4,200	31.3%	7,029	52.4%
CY 2014	25,076	7,798	31.1%	13,663	54.5%
CY 2015	27,601	8,891	32.2%	15,784	57.2%
CY 2016	30,646	10,132	33.1%	18,374	60.0%
All					
CY 2012	34,538	9,444	27.3%	14,405	41.7%
CY 2013	33,898	10,330	30.5%	15,823	46.7%
CY 2014	61,143	20,762	34.0%	32,137	52.6%
CY 2015	63,229	22,864	36.2%	35,948	56.9%
CY 2016	68,584	25,347	37.0%	40,559	59.1%

[34] MAT was defined as any treatment with buprenorphine, naloxone, methadone, or naltrexone.

Behavioral Health Integration

Table 36 presents the number and percentage of HealthChoice participants by behavioral health diagnosis group. These groups include dual diagnosis of MHD and SUD, MHD only, SUD only, or none of these diagnoses. Overall, the percentage of HealthChoice participants without a behavioral health condition decreased from 85.9 percent in CY 2012 to 83.1 percent in CY 2016. Participants with an MHD only experienced the largest percentage point increase, from 10.4 percent in CY 2012 to 11.5 percent in CY 2016.

Table 36. Number and Percentage of HealthChoice Participants with a Behavioral Health Diagnosis, by Diagnosis, CY 2012–CY 2016

Diagnosis	CY 2012	CY 2013	CY 2014	CY 2015	CY 2016
MHD + SUD	13,242 (1.4%)	13,417 (1.4%)	25,076 (2.0%)	27,601 (2.1%)	30,646 (2.4%)
MHD Only	96,333 (10.4%)	99,978 (10.4%)	128,733 (10.3%)	142,223 (10.9%)	148,186 (11.5%)
SUD Only	21,296 (2.3%)	20,481 (2.1%)	36,067 (2.9%)	35,628 (2.7%)	37,938 (3.0%)
None	799,404 (85.9%)	828,485 (86.1%)	1,060,960 (84.8%)	1,098,828 (84.2%)	1,069,037 (83.1%)
Total	**930,275 (100%)**	**962,361 (100%)**	**1,250,836 (100%)**	**1,304,280 (100%)**	**1,285,807 (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.[35] It also compares service utilization for children in foster care with other HealthChoice children. Unless otherwise specified, the measures presented here are for foster care children from birth through 21 years.

Table 37 displays HealthChoice children enrolled in foster care by age group for CY 2012 and CY 2016. Across the evaluation period, children aged 10 to 21 years made up the largest proportion of HealthChoice children in foster care (69.0 percent in CY 2012 and 65.1 percent in CY 2016).

Table 37. HealthChoice Children in Foster Care, by Age Group, CY 2012 and CY 2016

	CY 2012		CY 2016	
Age Group (Years)	**Number of Participants**	**Percentage of Total**	**Number of Participants**	**Percentage of Total**
0 to <1	273	2.7%	235	2.7%
1–2	706	6.9%	678	7.9%
3–5	954	9.3%	922	10.8%
6–9	1,263	12.3%	1,152	13.4%
10–14	1,972	19.2%	1,700	19.8%
15–18	2,665	25.9%	2,236	26.1%
19–21	2,459	23.9%	1,647	19.2%
Total	**10,292**	**100%**	**8,570**	**100%**

[35] Children in the subsidized adoption and guardianship programs are excluded from foster children counts.

Figure 16 displays the percentage of children in foster care who had at least one ambulatory care visit in CY 2012 and CY 2016, by age group. From CY 2012 to CY 2016, the overall rate of ambulatory care visits increased by 2.1 percentage points. As observed across the general HealthChoice population, younger children in foster care were more likely to receive ambulatory care services than older children.

Figure 16. Percentage of HealthChoice Children in Foster Care Who Received Ambulatory Care Services, by Age Group, CY 2012 and CY 2016

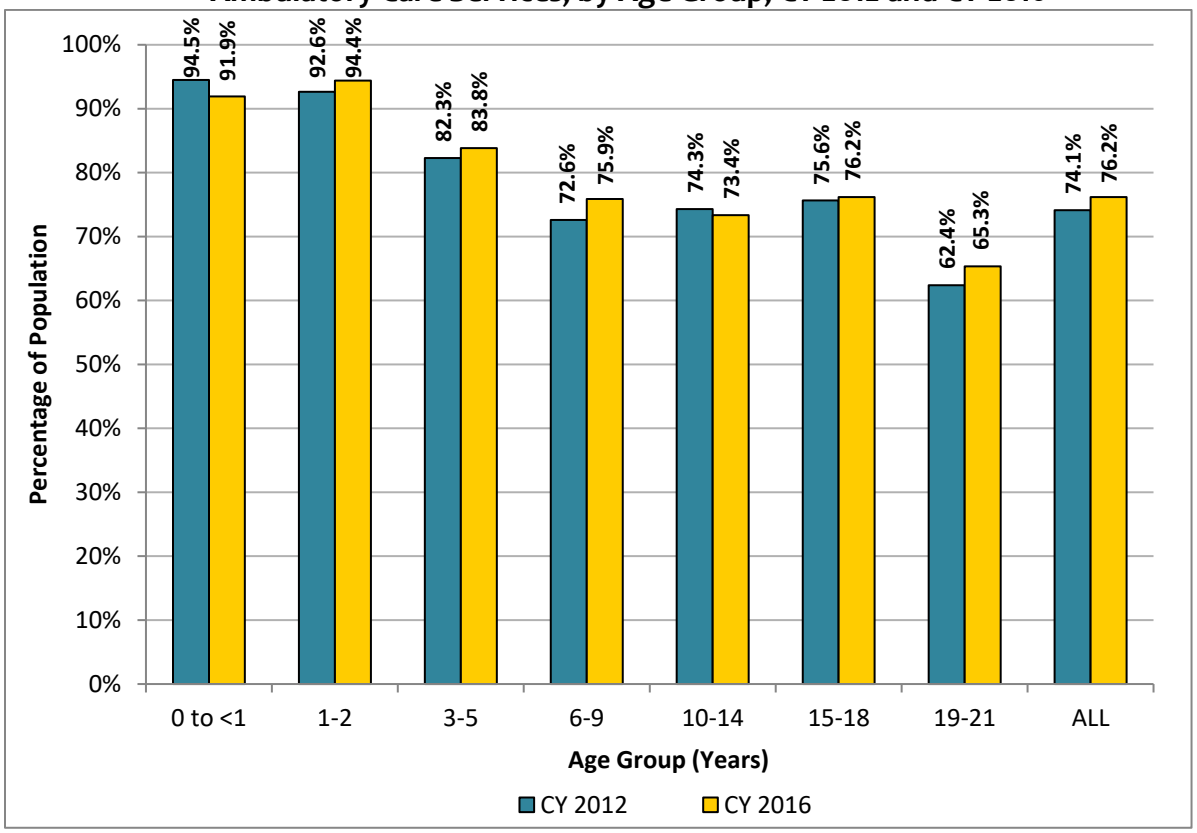


Figure 17 compares the ambulatory care visit rate for children in foster care with the rate for other HealthChoice children in CY 2016. Overall, children in HealthChoice accessed ambulatory care at a higher rate than children in foster care. However, children in foster care under the age of three years accessed ambulatory care services at a slightly higher rate than other children in HealthChoice.

Figure 17. Percentage of HealthChoice Children in Foster Care vs. Other HealthChoice Children Who Received Ambulatory Care Services, by Age Group, CY 2016

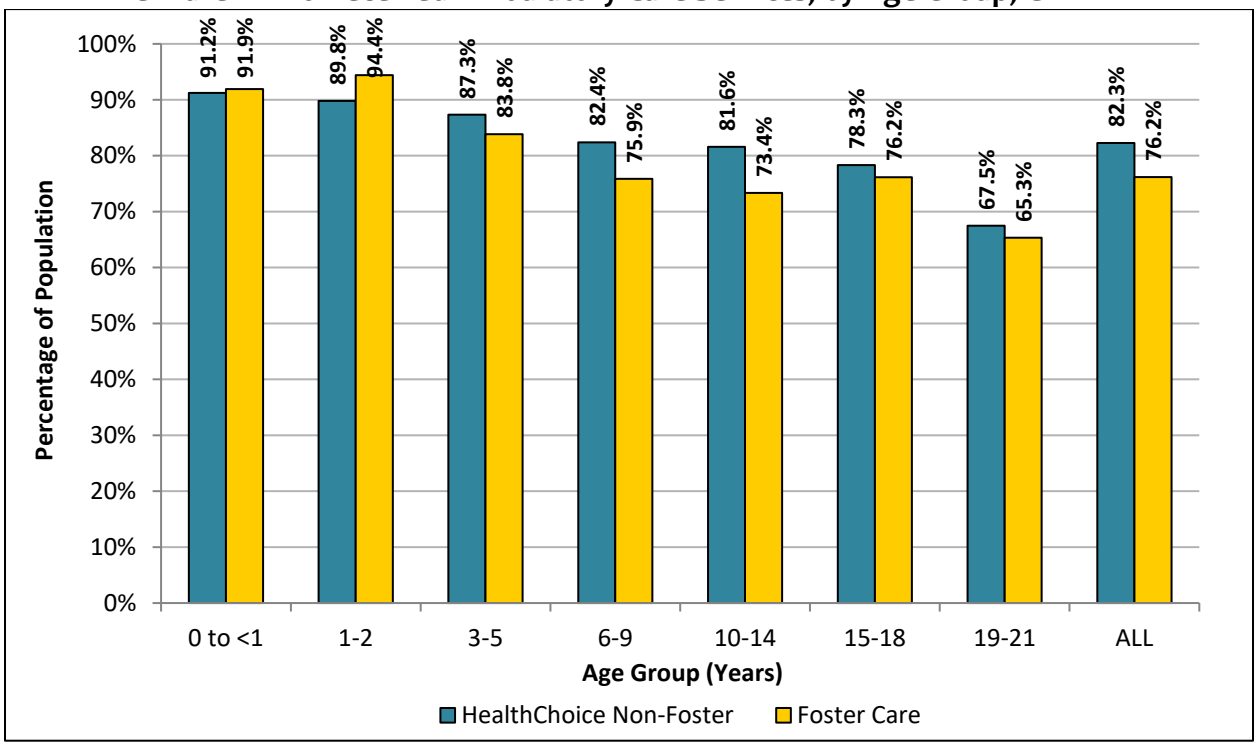
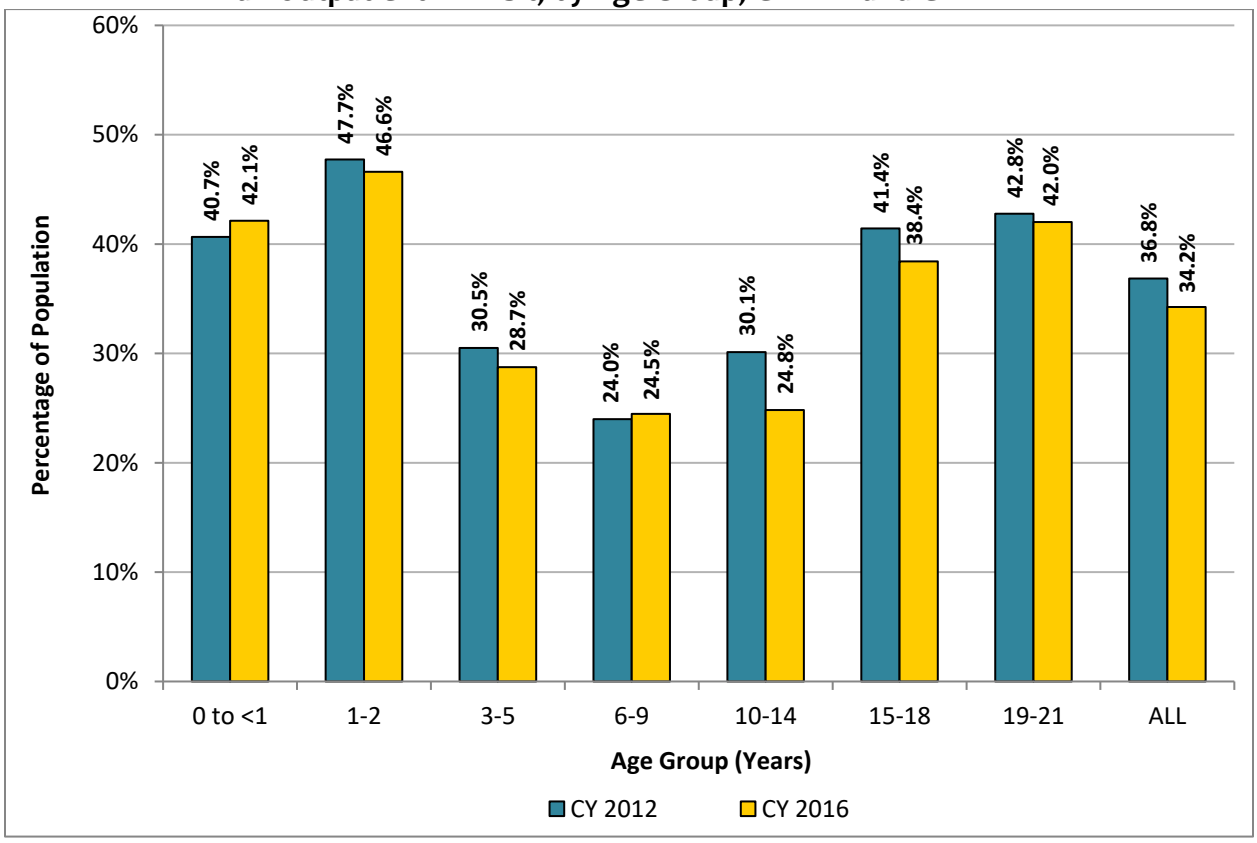


Figure 18 displays the percentage of children in foster care who received at least one outpatient ED visit in CY 2012 and CY 2016, by age group.[36] The overall rate decreased by 2.6 percentage points during the evaluation period. Children aged one to two years and 19 to 21 years had the highest rates of ED utilization in CY 2016. Overall ED utilization decreased for all age groups during the study period.

Figure 18. Percentage of HealthChoice Children in Foster Care Who Had an Outpatient ED Visit, by Age Group, CY 2012 and CY 2016



[36] Outpatient ED visits are defined as ED visits for patients who were seen and discharged on an outpatient basis. This measure does not include ED visits that lead to an inpatient admission.

Figure 19 compares the outpatient ED visit rate in CY 2016 for children in foster care to the rate for other HealthChoice children. Overall, children in foster care accessed the ED at a higher rate than other HealthChoice children. However, other children aged three to five years in HealthChoice accessed the ED at a higher rate than children in the foster care program.

Figure 19. Percentage of HealthChoice Children in Foster Care vs. Other HealthChoice Children Who Had an Outpatient ED Visit, by Age Group, CY 2016

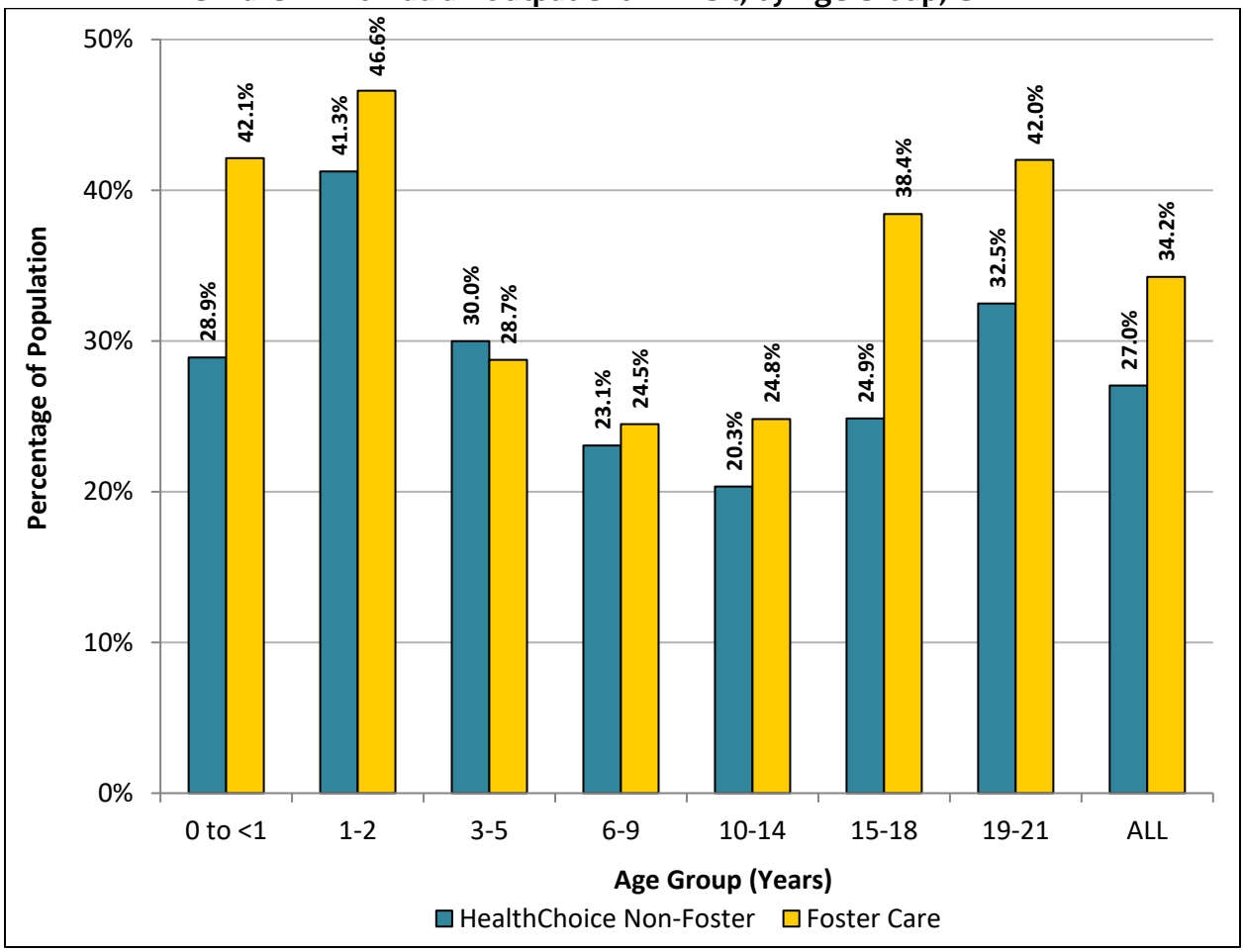


Figure 20 compares the dental utilization rate in CY 2016 for foster care children aged four to 20 years enrolled in HealthChoice to the rate for other HealthChoice children. Overall, children in foster care had a similar dental visit rate (63.4 percent) to other HealthChoice children (62.7 percent). The largest differences between the two populations were observed in the older age groups. The dental visit rate was 52.1 percent for children in foster care aged 19 to 20 years and 37.5 percent for other HealthChoice children—a difference of 14.6 percentage points. Among children aged 15 to 18 years, those in foster care had a dental visit rate that was 9.6 percentage points higher than other HealthChoice participants.

Figure 20. Percentage of HealthChoice Children Aged 4–20 Years in Foster Care vs. Other HealthChoice Children Who Received a Dental Visit, by Age Group, CY 2016

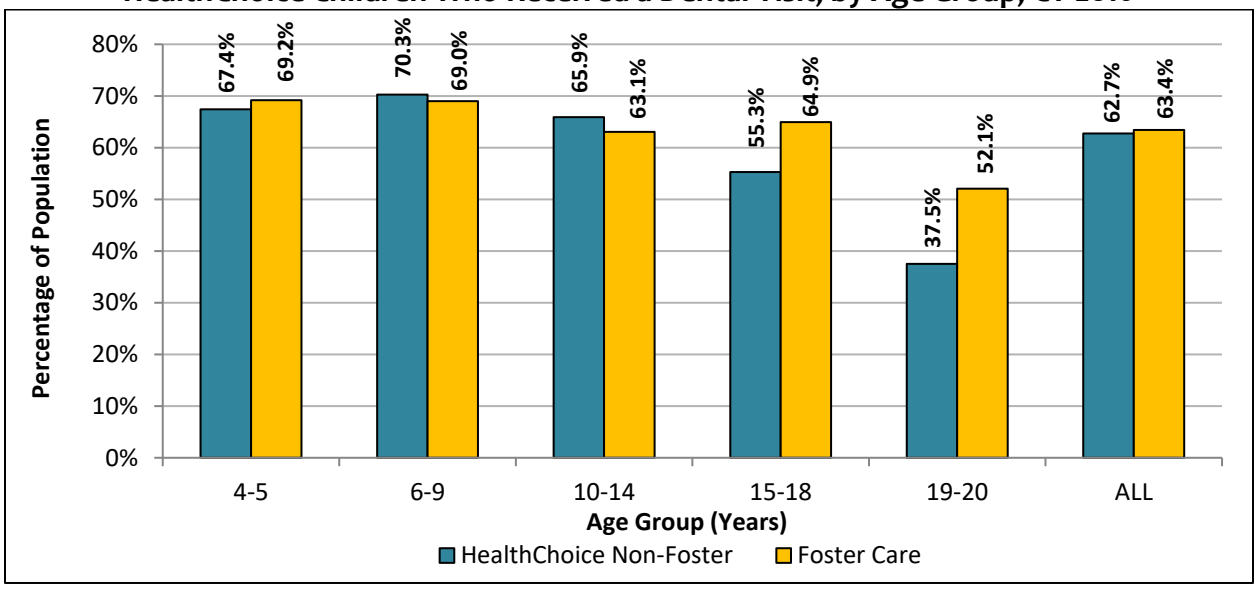


Figure 21 compares the percentage of children in foster care who received at least one outpatient pharmacy prescription in CY 2012 and CY 2016, by age group. Overall, the percentage of children receiving at least one prescription decreased between CY 2012 and CY 2016. However, children enrolled in foster care aged zero to one year experienced an increase of 4.1 percentage points. Those aged one to two years had the highest prescription rate in both CY 2012 and CY 2016, and those aged 19 to 21 years had the lowest.

Figure 21. Percentage of Children in Foster Care Receiving at Least One Prescription, by Age Group, CY 2012 and CY 2016

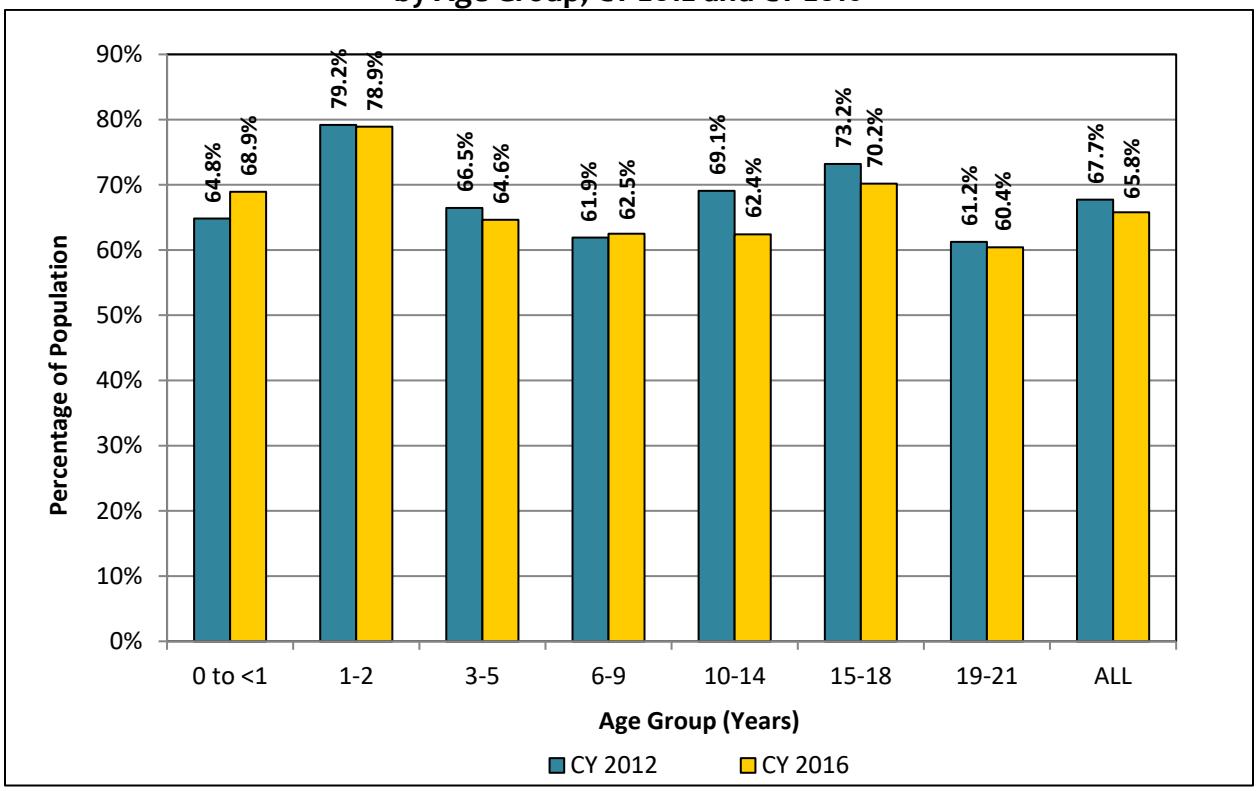


Table 38 shows the rates of MHDs, SUDs, and co-occurring MHD and SUD conditions among foster care and other HealthChoice participants in CY 2012 and CY 2016. The percentage of participants diagnosed with an MHD, SUD, or co-occurring MHD and SUD diagnosis were higher among foster care participants compared to other HealthChoice participants. The percentage of both foster care and non-foster care participants with an MHD only increased slightly across the evaluation period, In contrast, the percentage of participants with SUD only diagnoses decreased from CY 2012 to CY 2016 for both foster care and non-foster care participants. The percentage of participants with a co-occurring MHD and SUD remained stable for foster care and non-foster care participants between CY 2012 and CY 2016.

Table 38. Behavioral Health Diagnosis of Medicaid Participants in Foster Care vs. Other HealthChoice Children Aged 0 - 21 Years, CY 2012 and CY 2016

	CY 2012			CY 2016		
Foster Care Status	**Number of Participants**	**Total Participants**	**Percentage of Total**	**Number of Participants**	**Total Participants**	**Percentage of Total**
MHD Only						
Foster Care	4,224	10,292	41.0%	3,575	8,570	41.7%
Non-Foster Care	54,610	638,158	8.6%	71,818	693,768	10.4%
SUD Only						
Foster Care	136	10,292	1.3%	80	8,570	0.9%
Non-Foster Care	8,410	638,158	1.3%	2,950	693,768	0.4%
Dual Diagnosis (MHD and SUD)						
Foster Care	311	10,292	3.0%	294	8,570	3.4%
Non-Foster Care	2,283	638,158	0.4%	1,931	693,768	0.3%
None						
Foster Care	5,621	10,292	54.6%	4,621	8,570	53.9%
Non-Foster Care	573,005	638,158	89.8%	617,224	693,768	89.0%

Maternal Health

This section of the report focuses on the maternal health services provided under HealthChoice. The Department 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 prenatal care, the dental benefit for pregnant women, and other resources (such as the Text4Baby program).[37] The Department also operates a dedicated help line for pregnant women. Women who contact the help line are referred to Medicaid-funded Administrative Care Coordination Units (ACCUs) at the local health departments. The ACCUs connect HealthChoice participants to both their MCOs and other services, such as dental services and local home-visiting programs.

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 easier it is to identify and manage health conditions that could affect her health or the health of the newborn.

[37] Information on Text4Baby is available https://www.text4baby.org/

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 39 presents HealthChoice performance on this measure for CY 2012 through CY 2016 (MetaStar, Inc., 2017). Timeliness of prenatal care increased by 1.8 percentage points during the evaluation period: from 85.8 percent in CY 2012 to 87.6 percent in CY 2016. HealthChoice outperformed the national HEDIS mean each year except CY 2013.

Table 39. HEDIS Timeliness of Prenatal Care, HealthChoice Compared with the National HEDIS Mean, CY 2012–CY 2016*

	CY 2012	CY 2013	CY 2014	CY 2015	CY 2016
Percentage of Deliveries in which the Mother Received a Prenatal Care Visit in the 1st Trimester or within 42 days of HealthChoice Enrollment	85.8%	81.5%	82.8%	84.4%	87.6%
National HEDIS Mean	+	-	+	+	+

*The HealthChoice averages in CY 2013 and CY 2014 were affected 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 prenatal visits received.[38] The Department 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 and accounts for gestational age and time of enrollment. The 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, meaning that a higher score is preferable. Table 40 shows that this rate decreased by 0.5 percentage points during the evaluation period, from 71.5 percent in CY 2012 to 71 percent in CY 2016 (MetaStar, Inc., 2017). 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 decreased by 1.3 percentage points, from 6.3 percent in CY 2012 to 5.0 percent in CY 2016. Maryland consistently outperformed the national HEDIS means for both aspects of this measure, although performance declined from CY 2012 to CY 2014. Performance on both aspects of the measure greatly improved between CY 2014 and CY 2016.

[38] 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 13 to 15 visits.

Table 40. 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 2012–CY 2016*

	CY 2012		CY 2013		CY 2014		CY 2015		CY 2016	
	MD	National	MD	National	MD	National	MD	National	MD	National
Greater than or equal to 81% of Expected Prenatal Visits	71.5%	+	66.0%	+	64.9%	+	67.9%	+	71.0%	+
Less than 21% of Expected Prenatal Visits**	6.3%	+	9.7%	+	8.2%	+	6.1%	+	5.0%	+

* The HealthChoice averages in CY 2014 were affected by the inclusion of HEDIS rates from newer MCOs.
** A lower rate points to better performance. A "+" means that the rate is below the National HEDIS Mean.

Prenatal Care Outreach by MCOs

A goal of the HealthChoice evaluation is to highlight health promotion and disease prevention, including screenings for prenatal care and reproductive health. The Department has been working with MCOs to increase their outreach efforts to female enrollees of childbearing age regarding prenatal care services. To determine the status of each MCO's outreach efforts, the Department conducted a survey of all nine MCOs in early 2018. Through the activities of the Department and the MCOs, there is a concerted effort to ensure that female enrollees of childbearing age are provided the information necessary for prenatal care services.

Eight of the nine MCOs responded that they do conduct prenatal care outreach to female enrollees of childbearing age. MCOs identified female childbearing participants through a variety of ways, including Maryland Prenatal Risk Assessments, claims data, provider referrals, self-referrals, the Blended Census Reporting Tool, and Local Health Department form requests. One MCO responded that it does not specifically identify these members and instead sends general notices to all members regarding the importance of prenatal care.

All MCOs reported using mailings to conduct prenatal care outreach; seven MCOs reported using phone calls; and three MCOs reported using e-mail to conduct prenatal care outreach. MCOs also reported using events, face-to-face engagement, member handbooks, patient education, and online resources to conduct prenatal care outreach.

Three MCOs conducted outreach monthly; one MCO conducted outreach quarterly; and one MCO conducted outreach annually. MCOs also reported conducting outreach on a daily or weekly basis, depending on the status of the enrollee. Seven MCOs referred enrollees to community-based resources through their prenatal care outreach; six MCOs referred enrollees to OB/GYN care; four MCOs referred enrollees to PCPs; and one MCO referred enrollees to the

MCO. MCOs also included referrals to dental services, behavioral health services, prenatal classes, post-partum care, and patient education as part of their outreach.

The Family Planning Program

The HealthChoice waiver allows the Department to provide a limited benefit package of family planning services to eligible women. Currently eligible are women of childbearing age who are not otherwise eligible for Medicaid, CHIP, or Medicare, and who have a family income at or below 200 percent of the FPL. The Family Planning program covers office and clinic visits; physical examinations; certain laboratory services; treatments for sexually transmitted infections; family planning supplies; permanent sterilization and reproductive health counseling; education; and referrals. Previously, the Family Planning program only enrolled postpartum women. Eligibility for the program was expanded in 2012 to cover any women younger than 51 years of age—regardless of postpartum status—with household income below 200 percent of the FPL.

Tables 41 and 42 present the total number of Medicaid participants in the Family Planning program and the percentage of Family Planning participants who received at least one service between CY 2012 and CY 2016. These data are presented for women who were enrolled in Family Planning for any period 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 37.9 percent: from 24,883 participants in CY 2012 to 15,447 participants in CY 2016 (Table 41). This decline in enrollment may be partially attributed to the ACA expansion, which provided full Medicaid coverage to all individuals (including parents) with income up to 138 percent of the FPL. This expansion increased the number of women who were eligible for full Medicaid benefits after delivery.

The percentage of women with any period of enrollment in the program who used at least one family planning service decreased from 36.2 percent in CY 2012 to 18.9 percent in CY 2016 (Table 41). The percentage of women enrolled in the program for the entire 12 months with at least one service decreased from 53.7 percent in CY 2012 to 17.7 percent in CY 2016 (Table 42).

Table 41. Percentage of Family Planning Participants (Any Period of Enrollment) Who Received a Corresponding Service, CY 2012–CY 2016

	CY 2012	CY 2013	CY 2014	CY 2015	CY 2016
Number of Participants	24,883	26,105	22,042	19,754	15,447
Number with at Least 1 Service	9,019	8,954	6,305	4,671	2,925
Percentage with at Least 1 Service	36.2%	34.3%	28.6%	23.6%	18.9%

Table 42. Percentage of Family Planning Participants (12-Month Enrollment) Who Received a Corresponding Service, CY 2012–CY 2016

	CY 2012	CY 2013	CY 2014	CY 2015	CY 2016
Number of Participants	2,520	4,147	6,032	7,488	6,758
Number with at Least 1 Service	1,352	2,252	2,061	1,672	1,198
Percentage with at Least 1 Service	53.7%	54.3%	34.2%	22.3%	17.7%

Services for Individuals with HIV/AIDS

The Department 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 43 presents the percentage of participants with HIV/AIDS by age group and race/ethnicity for CY 2012 and CY 2016. The percentage of enrollees under the age of 18 years decreased from 5.7 percent in CY 2012 to 3.4 percent in CY 2016. Across the evaluation period, the distribution of enrollees by age group remained consistent. In CY 2016, Black and White participants composed 92.7 percent of the HIV/AIDS population.

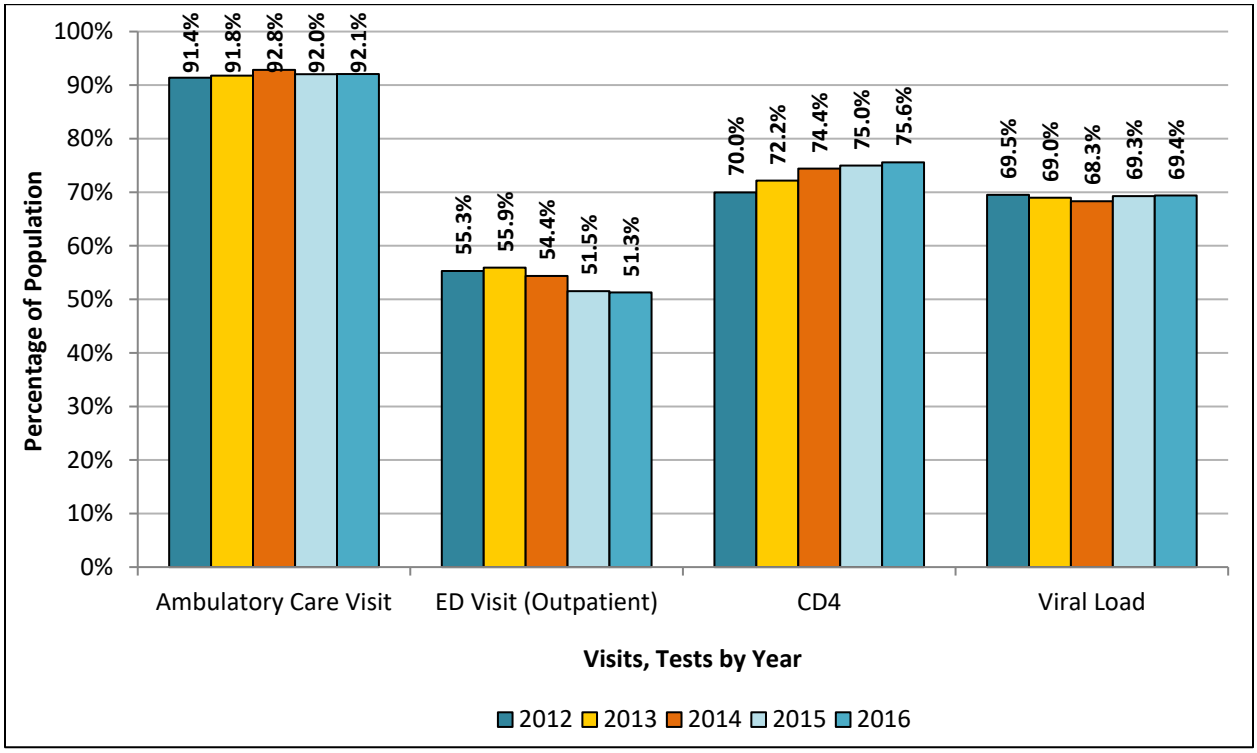
Table 43. Distribution of HealthChoice Participants with HIV/AIDS, by Age Group and Race/Ethnicity, CY 2012 and CY 2016

Demographic Characteristic	CY 2012		CY 2016	
	Number of Participants	Percentage of Total	Number of Participants	Percentage of Total
Age Group (Years)				
0–18	301	5.7%	222	3.4%
19–39	1,460	27.9%	1,925	29.6%
40–64	3,481	66.4%	4,356	67.0%
Total	**5,242**	**100%**	**6,503**	**100%**
Race/Ethnicity				
Asian	*		36	0.6%
Black	4,475	85.4%	5,430	83.5%
White	516	9.8%	599	9.2%
Hispanic	52	1.0%	84	1.3%
Native American	*		11	0.2%
Other	170	3.2%	343	5.3%
Total	**5,242**	**100%**	**6,503**	**100%**

Figure 22 shows service utilization by participants with HIV/AIDS from CY 2012 through CY 2016. Overall, the percentage of participants who received an ambulatory care visit increased by 0.7 percentage points during the evaluation period. The percentage of participants with an outpatient ED visit increased by 0.6 percentage points between CY 2012 and CY 2013, and then decreased by 4.6 percentage points between CY 2013 and CY 2016.

Figure 22 also presents the percentage of individuals with HIV/AIDS who received CD4 testing; this rate increased by 5.6 percentage points from CY 2012 to CY 2016. Finally, Figure 22 displays the percentage of individuals with HIV/AIDS who received viral load testing during the evaluation period. Participants had a decrease in utilization from 69.5 percent in CY 2012 to 68.3 percent in CY 2014, and then utilization increased by 1.1 percent between CY 2014 and CY 2016.

Figure 22. Percentage of HealthChoice Participants with HIV/AIDS Who Received an Ambulatory Care Visit, ED Visit, CD4 Testing, and Viral Load Testing, CY 2012–CY 2016



HIV Screening

The HIV Surveillance Report (2017), an annual publication by the CDC, reported a national HIV incidence rate of 12.3 per 100,000 people in 2016. In Maryland, the incidence rate of HIV diagnoses for 2016 was 18.3 per 100,000 people, a decrease from the previous year's rate of 21.7 (CDC, 2017). It is estimated that 30 percent of new HIV infections are transmitted by people who have undiagnosed HIV (CDC, 2018). Early initiation of anti-retroviral treatment has been found to lower an HIV-infected individual's risk of developing AIDS and other complications (Insight Start Study Group, 2015). HIV screening is an important step in determining HIV status and starting appropriate treatment. The CDC currently recommends that everyone between 13 and 64 years of age be tested for HIV at least once, or more frequently if they are at high risk.

Table 44 shows HIV screenings for HealthChoice participants aged 15 to 64 years from CY 2012 through CY 2016. The percentage of participants who received HIV screening decreased in CY 2014 and CY 2015, before increasing by 2.0 percentage points in CY 2016.

Table 44. HIV Screening in the HealthChoice Population for Participants Aged 15–64 years, CY 2012–CY 2016

	CY 2012	CY 2013	CY 2014	CY 2015	CY 2016
Number of HealthChoice Participants	436,502	453,914	718,220	771,917	758,495
Number Received HIV Screening	67,323	70,368	106,484	109,523	123,061
Percentage Received HIV Screening	15.4%	15.5%	14.8%	14.2%	16.2%

For people who are not HIV positive but are at risk for contracting the infection, pre-exposure prophylaxis (PrEP) can help prevent HIV (CDC, 2018). PrEP is medication that must be taken daily to reduce the risk of HIV infection (CDC, 2018). Table 45 presents the percentage of HealthChoice participants who received PrEP from CY 2012 to CY 2016. This percentage remained stable throughout the evaluation period.

Table 45. HIV Pre-Exposure Prophylaxis (PrEP) in the HealthChoice Population, CY 2012–CY 2016

	CY 2012	CY 2013	CY 2014	CY 2015	CY 2016
Number of HealthChoice Participants	1,226,303	1,279,537	1,507,579	1,570,582	1,535,171
Number Received HIV PrEP	3,026	3,006	3,262	3,251	2,983
Percentage Received HIV PrEP	0.25%	0.23%	0.22%	0.21%	0.19%

Services for Individuals with Diabetes

The Department monitors service utilization for HealthChoice participants with diabetes. This section of the report presents the enrollment distribution of HealthChoice participants with diabetes by age group and race/ethnicity, as well as measures of inpatient admissions, outpatient ED visits, and ambulatory care service utilization. The diagnosis of diabetes was defined based on the HEDIS value sets assigned to the Comprehensive Diabetes Care measure. The criteria used to identify enrollees with diabetes included any of the following during the calendar year: at least one prescription for insulin or hypoglycemics/anti-hyperglycemics that was dispensed in an ambulatory setting; or an outpatient, ED, and/or inpatient visit with a diabetes diagnosis. Pharmacy claims and encounters were used to identify prescriptions for insulin or hypoglycemics/anti-hyperglycemics using national drug codes (NDCs).

Table 46 presents the number and percentage of HealthChoice participants with a diabetes diagnosis by race/ethnicity, sex, region, and age group. The rate of diabetes diagnoses remained relatively consistent within demographic characteristics throughout the evaluation period; however, the rate of diabetes diagnosis increased for those aged 41 to 64 years by more than 8.0 percentage points during the measurement period. In addition, the rate of participants with diabetes decreased in the Baltimore City region by almost 6.0 percentage points. The total number of HealthChoice participants with diabetes more than doubled between CY 2012 and CY 2016. This is likely due to the enrollment of new participants through the ACA in CY 2014.

Table 46. Demographic Characteristics of HealthChoice Participants with a Diabetes Diagnosis, CY 2012–CY 2016

Demographic Characteristic	CY 2012 % of Total	CY 2013 % of Total	CY 2014 % of Total	CY 2015 % of Total	CY 2016 % of Total
Race/Ethnicity					
Asian	4.2%	4.8%	5.4%	5.8%	5.9%
Black	55.1%	54.7%	51.4%	50.2%	50.1%
White	31.1%	30.6%	30.5%	29.7%	29.2%
Hispanic	5.2%	5.5%	4.5%	4.2%	3.9%
Native American	0.3%	0.2%	0.3%	0.4%	0.3%
Other	4.1%	4.3%	7.8%	9.8%	10.6%
Sex					
Female	66.6%	66.4%	59.5%	58.6%	58.1%
Male	33.5%	33.7%	40.5%	41.5%	41.9%
Region					
Baltimore City	29.9%	28.8%	25.2%	24.0%	23.9%
Baltimore Suburban	24.7%	24.7%	26.1%	26.0%	26.3%
Eastern Shore	10.5%	10.0%	10.2%	10.0%	10.1%
Southern Maryland	4.8%	4.9%	5.2%	5.2%	5.2%
Washington Suburban	21.9%	22.8%	25.3%	26.9%	26.6%
Western Maryland	8.0%	8.2%	7.8%	7.7%	7.8%
Out of State	0.3%	0.3%	0.2%	0.2%	0.1%
Age Group (Years)					
18-40	30.9%	30.9%	23.6%	22.2%	22.1%
41-64	69.1%	69.1%	76.4%	77.8%	77.8%

Table 47 presents the number and percentage of HealthChoice participants with a diabetes diagnosis who had at least one inpatient admission. The percentage of participants with a diabetes diagnosis who had an inpatient admission decreased by 8.9 percentage points between CY 2012 and CY 2016. From CY 2015 to CY 2016, the percentage remained stable, only increasing by 0.1 percentage points.

Table 47. Percentage of HealthChoice Participants with a Diabetes Diagnosis with an Inpatient Admission, CY 2012–CY2016

Year	Number of Participants	At Least One Ambulatory Care Visit	
		Number	Percentage
CY 2012	26,074	7,868	30.2%
CY 2013	27,031	7,721	28.6%
CY 2014	49,137	11,806	24.0%
CY 2015	55,915	11,860	21.2%
CY 2016	57,162	12,162	21.3%

Table 48 presents the number and percentage of HealthChoice participants with a diabetes diagnosis who had an ED visit. During the measurement period, the percentage of participants with a diabetes diagnosis who had at least one ED visit decreased from 53.0 percent in CY 2012 to 46.1 percent in CY 2016.

Table 48. Percentage of HealthChoice Participants with a Diabetes Diagnosis Who Received an ED Visit, CY 2012–CY 2016

Year	Number of Participants	At Least One ED Visit	
		Number	Percentage
CY 2012	26,074	13,819	53.0%
CY 2013	27,031	14,336	53.0%
CY 2014	49,137	23,915	48.7%
CY 2015	55,915	25,762	46.1%
CY 2016	57,162	26,333	46.1%

Table 49 presents the number and percentage of HealthChoice participants with a diabetes diagnosis who had an ambulatory care visit. The percentage remained stable overall but increased slightly by 0.6 percentage points between CY 2012 and CY 2014, decreased by 1.8 percentage points in CY 2015, and then increased by 0.6 percentage points in CY 2016.

Table 49. Percentage of HealthChoice Participants with a Diabetes Diagnosis Who Received an Ambulatory Care Visit, CY 2012–CY 2016

Year	Number of Participants	At Least One Ambulatory Care Visit	
		Number	Percentage
CY 2012	26,074	24,778	95.0%
CY 2013	27,031	25,759	95.3%
CY 2014	49,137	46,966	95.6%
CY 2015	55,915	52,435	93.8%
CY 2016	57,162	53,949	94.4%

Rare and Expensive Case Management (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 aides, and adult dental services. This section of the report presents data on REM enrollment and service utilization.

REM Enrollment

Table 50 presents REM enrollment by age group and sex for CY 2012 and CY 2016. In both years, the majority of REM participants were male children through 18 years. There was a lower percentage of females in the REM population than in the general HealthChoice population.

Table 50. REM Enrollment by Age Group and Sex, CY 2012 and CY 2016

	CY 2012		CY 2016	
Age Group	**Number of Enrollees**	**Percentage of Total**	**Number of Enrollees**	**Percentage of Total**
0-18	3,156	69.7%	2,986	66.4%
19 and over	1,369	30.3%	1,510	33.6%
Total	**4,525**	**100%**	**4,496**	**100%**
Se	**Number of Enrollees**	**Percentage of Total**	**Number of Enrollees**	**Percentage of Total**
Female	1,997	44.1%	1,940	43.1%
Male	2,528	55.9%	2,556	56.9%
Total	**4,525**	**100%**	**4,496**	**100%**

REM Service Utilization

Figure 23 shows the percentages of REM participants who received at least one dental, inpatient, ambulatory care, and outpatient ED visit between CY 2012 and CY 2016. The dental, inpatient, and ambulatory care visit measures serve as indicators of access to care. The percentage of participants with a dental visit increased during the evaluation period, from 49.2 percent in CY 2012 to 53.8 percent in CY 2016. The percentage of REM participants who had an inpatient visit declined by 1.5 percentage points between CY 2012 and CY 2016; however, the rate dropped by 2.5 percentage points from CY 2013 (31.0 percent) to CY 2016 (28.6 percent). The utilization rate for ambulatory care visits remained steady throughout the evaluation period. Outpatient ED visits decreased by 1.6 percentage points over the entire evaluation period; however, the rate declined from a high of 46.7 percent in CY 2013 to 44.3 percent in CY 2016.

Figure 23. Percentage of REM Participants Who Received a Dental, Inpatient, Ambulatory Care, and ED Visit, CY 2012–CY 2016

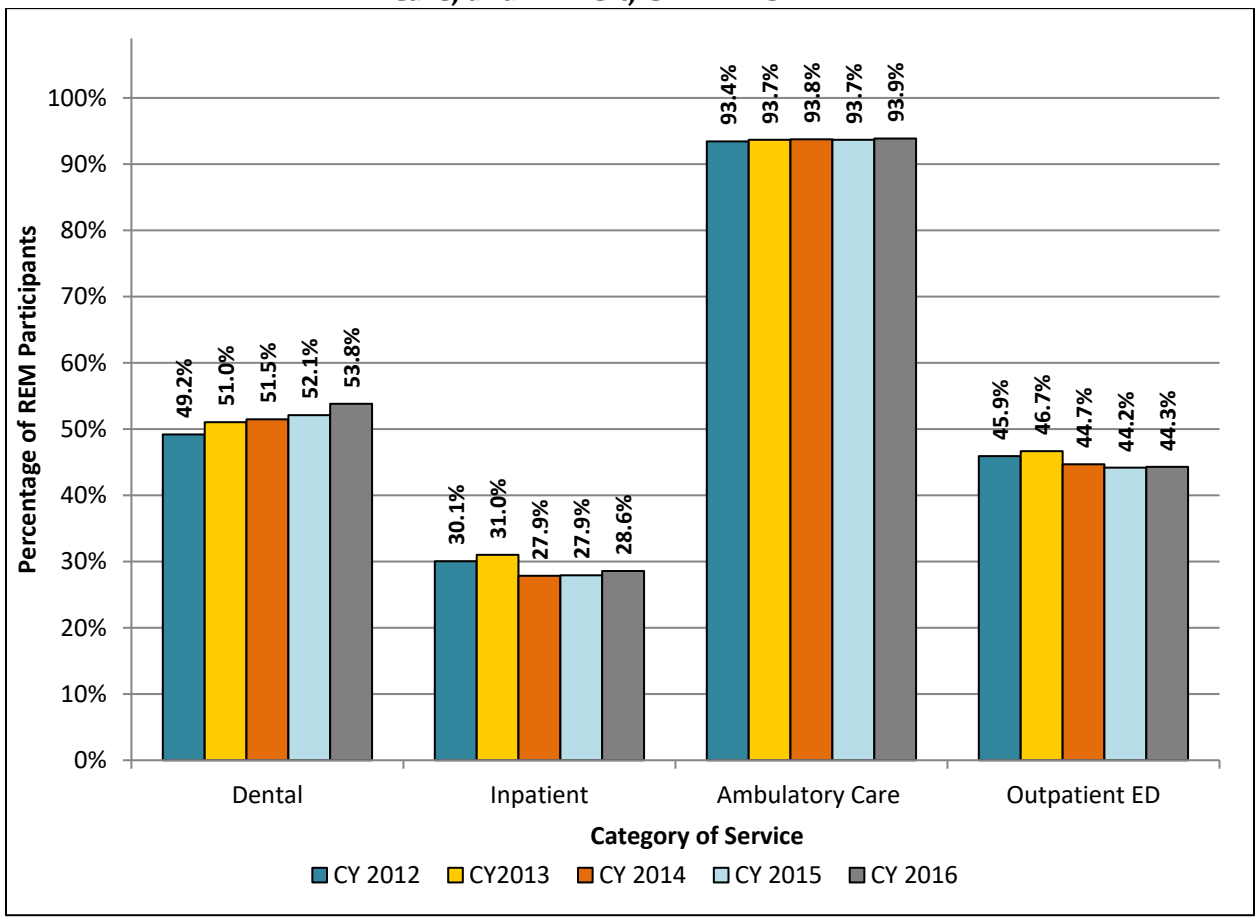


Table 51 shows the diagnosis rates of MHDs, SUDs, co-occurring MHD and SUD, and no MHDs or SUDs among REM participants at the beginning and end of the evaluation period. The percentage of REM participants with an MHD only and co-occurring MHD and SUD diagnoses increased between CY 2012 and CY 2016. In contrast, the rates for SUD only and no behavioral health diagnoses decreased between CY 2012 and CY 2016.

Table 51. Behavioral Health Diagnoses of REM Participants, CY 2012–2016

CY 2012			CY 2016		
# of Participants	Total Participants	% of Total	# of Participants	Total Participants	% of Total
MHD Only					
697	4,525	15.4%	874	4,496	19.4%
SUD Only					
212	4,525	4.7%	122	4,496	2.7%
Dual Diagnosis (MHD and SUD)					
36	4,525	0.8%	46	4,496	1.0%
None					
3,580	4,525	79.1%	3,454	4,496	76.8%

Racial and Ethnic Disparities

Racial and ethnic disparities in health care are nationally-recognized challenges. The Department is committed to improving health services utilization among racial and ethnic groups through its Managing for Results (MFR) program. MFR is a strategic planning and performance measurement process used to improve government programs. The Department's Office of Minority Health and Health Disparities uses MFR to target goals in reducing racial and ethnic disparities. This section of the report presents enrollment trends among racial and 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 and ethnicity information beginning with CY 2014. The approach to selecting race and ethnicity on the Medicaid eligibility application was changed in Medicaid's new eligibility process. As a result, the number of individuals reporting their race or ethnicity decreased, and the proportion represented as "Other" increased sharply.

Enrollment

Table 52 displays HealthChoice enrollment by race and ethnicity. Total enrollment increased within each racial and ethnic group between CY 2012 and CY 2016. However, this growth did not occur uniformly across all categories. In terms of the racial composition within

HealthChoice, the percentage of Black participants decreased from 49.0 percent in CY 2012 to 43.6 percent in CY 2016, whereas the percentage of White participants remained steady. The largest increase during the study period was among participants with the category of "Other," which went from 6.1 percent to 14.0 percent. Again, this change may in part result from changes to the process for identifying race and ethnicity on the Medicaid eligibility application, and the "Other" category includes those with an unknown race/ethnicity.

Table 52. HealthChoice Enrollment by Race/Ethnicity, CY 2012 and CY 2016

Race/Ethnicity	CY 2012		CY 2016	
	Number of Enrollees	Percentage of Total Race/Ethnicity	Number of Enrollees	Percentage of Total Race/Ethnicity
Asian	32,095	3.4%	55,262	4.3%
Black	456,318	49.0%	561,106	43.6%
White	268,914	28.9%	369,408	28.7%
Hispanic	114,749	12.3%	116,788	9.1%
Native American	1,844	0.2%	3,618	0.3%
Other	56,404	6.1%	179,625	14.0%
Total	**930,324**	**100%**	**1,285,807**	**100%**

Ambulatory Care Visits

Figure 24 shows the percentage of children aged zero through 18 years who received at least one ambulatory care visit in CY 2012 and CY 2016 by race and ethnicity. The rate of ambulatory care visits among this age group increased for all races and ethnicities throughout the evaluation period. Hispanic participants had the highest rate in both CY 2012 (89.1 percent) and CY 2016 (89.9 percent), and Black participants had the lowest rate across the evaluation period (78.0 percent in CY 2012 and 79.8 percent in CY 2016).

Figure 24. Percentage of HealthChoice Participants Aged 0–18 Years Who Received an Ambulatory Care Visit, by Race/Ethnicity, CY 2012 and CY 2016

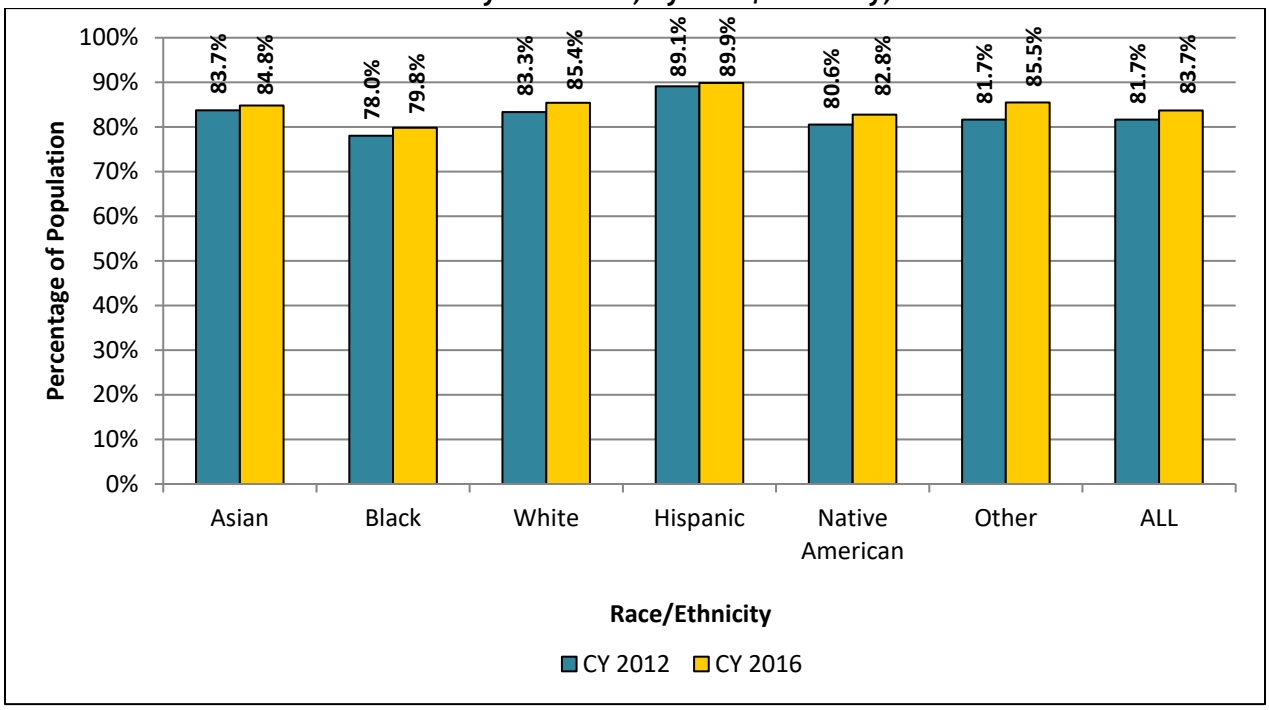
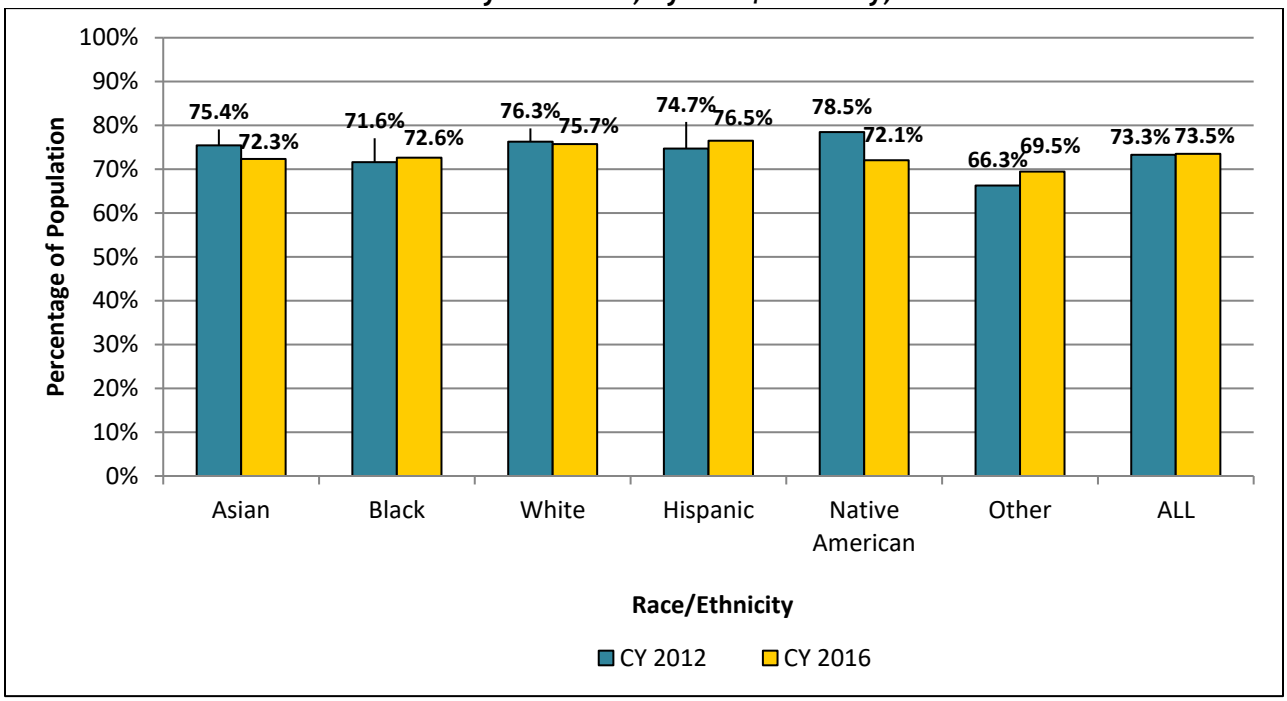


Figure 25 presents the percentage of adults aged 19 to 64 years who received at least one ambulatory care visit in CY 2012 and CY 2016 by race and ethnicity. While overall utilization remained steady, Asian and Native American participants' rates fell substantially—by 2.1 and 6.4 percentage points, respectively. White participants experienced a slight decline in the rate of ambulatory care: from 76.3 percent to 75.7 percent. Participants of all other races and ethnicities experienced increases in the rate of ambulatory care: a rise of 1.0 percentage point among Black participants, 1.8 percentage points among Hispanic participants, and 3.2 percentage points among participants with a race/ethnicity of "Other."

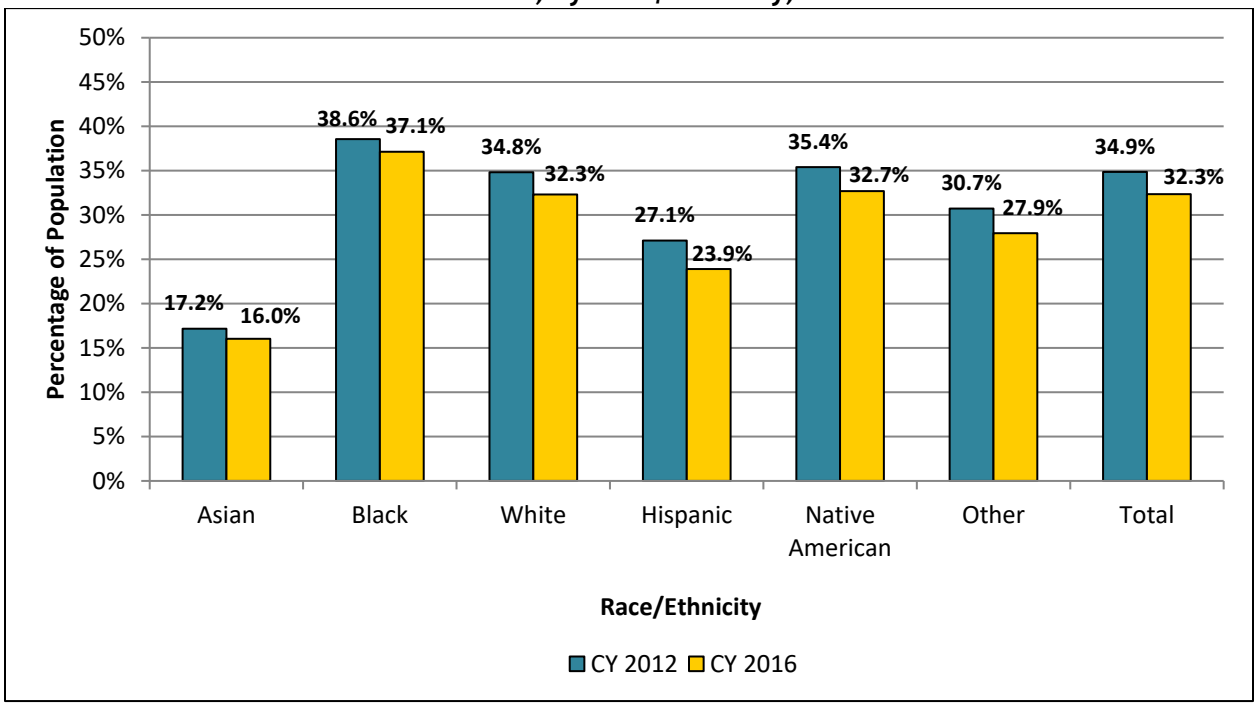
Figure 25. Percentage of HealthChoice Participants Aged 19–64 Years Who Received an Ambulatory Care Visit, by Race/Ethnicity, CY 2012 and CY 2016



ED Visits

Figure 26 displays the percentage of HealthChoice participants aged zero to 64 years who had at least one ED visit by race/ethnicity in CY 2012 and CY 2016. This measure excludes ED visits that resulted in an inpatient hospital admission. The overall rate decreased from 34.9 percent in CY 2012 to 32.3 percent in CY 2016, and each racial and ethnic group experienced a drop in its ED visit rate. Across the measurement period, Black participants continued to have the highest ED visit rate, while Asian participants continued to have the lowest.

Figure 26. Percentage of HealthChoice Participants Aged 0–64 Who Received an ED Visit, by Race/Ethnicity, CY 2012 and CY 2016



Prescriptions

Figure 27 shows the percentage of HealthChoice enrollees aged zero to 64 years who filled at least one prescription during CY 2012 and CY 2016 by race and ethnicity. The overall rate for all groups decreased from 68.8 percent in CY 2012 to 67.7 percent in CY 2016. Native American participants saw the greatest reduction in the percentage of participants who received one or more pharmacy prescriptions, decreasing by nearly three percentage points between CY 2012 and CY 2016.

Figure 27. Percentages of HealthChoice Participants Aged 0–64 with at Least One Outpatient Pharmacy Prescription, by Race/Ethnicity, CY 2012 and CY 2016

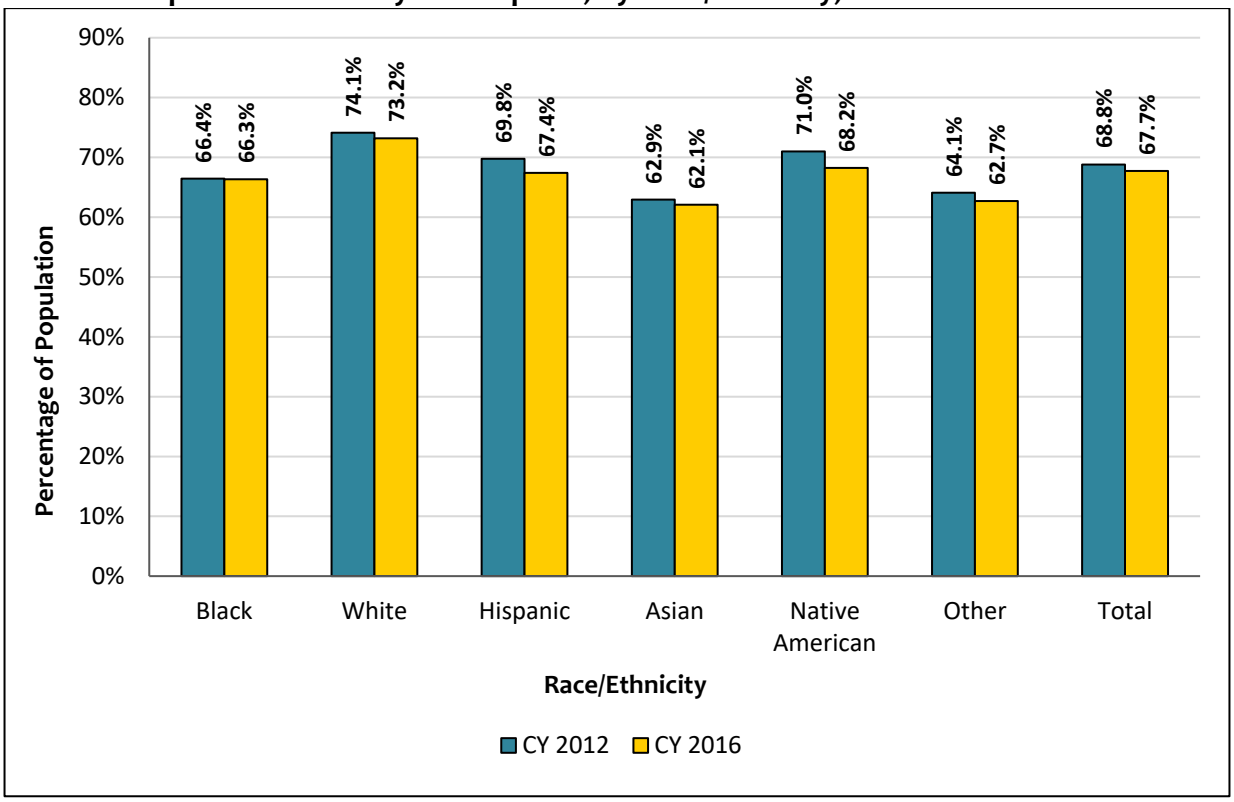


Table 53 displays the rates of MHDs, SUDs, and co-occurring MHD and SUD among HealthChoice participants by race/ethnicity during CY 2012 and CY 2016. An increase in the rate of participants with a diagnosis of an MHD only was seen among White, Black, Hispanic, and Asian participants, with the largest increase of 2.7 percentage points noted among Hispanic participants. Asian enrollees had the lowest rate of a diagnosed MHD, SUD, or co-occurring MHD and SUD both during CY 2012 and CY 2016. White participants had an increased rate of a diagnosed MHD, SUD, or co-occurring MHD and SUD across the measurement period.

Table 53. Distribution of HealthChoice Participants Aged 0–64, by Race/Ethnicity and Behavioral Health Conditions, CY 2012 and CY 2016

Race/Ethnicity	CY 2012		CY 2016	
	Number of Participants	Percentage of Total Participants	Number of Participants	Percentage of Total Participants
MHD Only				
Black	48,969	10.7%	69,699	12.4%
White	37,489	13.9%	56,682	15.3%
Hispanic	4,963	4.3%	8,232	7.0%
Asian	929	2.9%	2,016	3.6%
Native American	243	13.2%	456	12.6%
Other	3,740	6.6%	11,101	6.2%
Total	**96,333**	**10.4%**	**148,186**	**11.5%**
SUD ONLY				
Black	9,703	2.1%	14,160	2.5%
White	8,513	3.2%	20,243	5.5%
Hispanic	1,997	1.7%	743	0.6%
Asian	144	0.4%	251	0.5%
Native American	54	2.9%	145	4.0%
Other	885	1.6%	2,396	1.3%
Total	**21,296**	**2.3%**	**37,938**	**3.0%**
MHD + SUD				
Black	5,512	1.2%	11,765	2.1%
White	7,042	2.6%	16,745	4.5%
Hispanic	219	0.2%	362	0.3%
Asian	30	0.1%	143	0.3%
Native American	48	2.6%	127	3.5%
Other	391	0.7%	1,504	0.8%
Total	**13,242**	**1.4%**	**30,646**	**2.4%**
NONE				
Black	392,106	85.9%	465,482	83.0%
White	215,865	80.3%	275,738	74.6%
Hispanic	107,562	93.7%	107,451	92.0%
Asian	30,989	96.6%	52,852	95.6%
Native American	1,499	81.3%	2,890	79.9%
Other	51,383	91.1%	164,624	91.6%
Total	**799,404**	**85.9%**	**1,069,037**	**83.1%**

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 0.7 percentage points between CY 2012 and CY 2016, while rates for pregnant women aged 21 years and older decreased by 3.7 percentage points.
- In CY 2012, children and adults made up 50.3 percent and 49.7 percent, respectively, of HealthChoice participants with an MHD. In CY 2016, the proportion of adults increased to 61.3 percent. Among the HealthChoice population with an SUD, 95.2 percent of participants with an SUD were adults in CY 2016—a 21.5 percentage point increase from CY 2012. These changes can be attributed to the large influx of adults joining HealthChoice due to the ACA Medicaid expansion.
- In CY 2016, children in foster care had a higher rate of ambulatory care visits, a lower rate of outpatient ED visits, and a slightly higher rate of dental care utilization than other HealthChoice children.
- Measures of access to prenatal care services reached a low point in CY 2013, when the measure of the timeliness of prenatal care fell below the national HEDIS mean. The measures of access to prenatal care services then increased through CY 2016, equaling or exceeding the national HEDIS mean.
- Enrollment in the Family Planning program decreased by 37.9 percent between CY 2012 and CY 2016. During this time period, more postpartum women transitioned to full Medicaid coverage because of the ACA expansion.
- For participants with HIV/AIDS, ambulatory care service utilization and viral load testing rates remained stable, while CD4 testing rates increased by 5.6 percentage points during the evaluation period. ED utilization by this population decreased by 4.0 percentage points during the evaluation period.
- In 2012, 69.1 percent of HealthChoice participants with diabetes were aged 41 to 64 years; this proportion increased to 77.8 percent in 2016. Inpatient and ED utilization decreased by 8.9 and 6.9 percentage points respectively during the evaluation period for this population, while ambulatory care utilization remained stable.
- In CY 2016, the majority of REM participants were children (66.4 percent) and male (56.9 percent). The percentage of REM participants utilizing dental services increased by 4.6 percentage points between CY 2012 and CY 2016. The rates for ambulatory care and outpatient pharmacy prescription utilization remained stable throughout the evaluation period, while the rates of inpatient admissions and outpatient ED visits decreased slightly.

- Between CY 2012 to CY 2016, enrollment for every racial and ethnic group in HealthChoice increased. The number of participants enrolled in HealthChoice who were Black or Hispanic increased by 23.0 percent and 1.8 percent, respectively. Regarding racial and 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, Black participants also have the highest ED utilization rates. The Department will continue to monitor these measures to reduce disparities between racial and ethnic groups.

Section V. ACA Medicaid Expansion Population

The PAC program was launched in 2006, offering a limited benefit package to childless adults aged 19 years and older who were not otherwise eligible for Medicare and Medicaid and whose income was less than or equal to 116 percent of the FPL.[39] Subsequently, 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 fully-eligible Medicaid population on January 1, 2014. Therefore, the ACA Medicaid expansion population consists of three different coverage groups:

1. Former PAC participants;
2. Childless adults not previously enrolled in PAC[40]; and
3. Parents and caretaker relatives.

This section presents demographic and service utilization measures for participants with any enrollment in one of the ACA Medicaid expansion coverage groups. Additionally, the ACA expansion participants, many of whom were gaining Medicaid coverage for the first time, may have had limited health care utilization literacy, resulting in reduced access to care until they become more familiar with accessing care through Medicaid.

ACA Medicaid Expansion Population Demographics

The Maryland Medicaid program enrolled 283,697 adults through the ACA Medicaid expansion in CY 2014.[41] The number of participants who received coverage for at least one month in an ACA expansion coverage group increased to 355,271 in CY 2016. At the end of December 2016, 299,647 participants were enrolled in an ACA expansion coverage group.

Table 54 displays key demographic and enrollment characteristics of the expansion population for those with any period of enrollment in CY 2014 through CY 2016. In CY 2014, Black and White participants made up 81 percent of the overall expansion population with any period of enrollment, decreasing to 78.8 percent of the CY 2016 cohort. Among participants who had any period of enrollment in an ACA coverage group, men composed 53.3 percent of the cohort in CY

[39] The PAC program offered a limited benefit package to adults with low income, covering primary care visits, certain outpatient mental health services, and prescription drugs.
[40] 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.
[41] The definition of this measure was updated to include participants with any enrollment in an ACA expansion coverage group during the CY. The definition used in last year's HealthChoice evaluation was based on the participant's last coverage group of the CY or their status as a former PAC participant.

2014 and 52.2 percent in CY 2016. In CY 2014, the majority of participants with any period of enrollment resided in the Baltimore Suburban region (27.8 percent), followed by the Washington Suburban region (26.8 percent), and Baltimore City (22.6 percent); CY 2015 and CY 2016 followed a similar distribution. Participants aged 19 to 34 years composed the largest portion of the ACA expansion population. In CY 2014, 40.1 percent of participants with any ACA enrollment were aged 19 to 34 years. This proportion increased to 44.4 percent in CY 2016. Approximately 41.7 percent of ACA Medicaid expansion participants were enrolled for the entire year in CY 2014. This increased to 62.7 percent in CY 2016. Participants who were enrolled in Medicaid for less than three months may have begun their enrollment in the latter part of the year.

Table 54. ACA Medicaid Expansion Population Aged 19–64 Years, by Demographics and Enrollment Period, CY 2014–CY 2016

	CY 2014		CY 2015		CY 2016	
	# of Enrollees	% of Total	# of Enrollees	% of Total	# of Enrollees	% of Total
Race/Ethnicity						
Asian	14,680	5.2%	19,469	5.3%	18,270	5.1%
Black	125,828	44.4%	158,659	43.4%	152,532	42.9%
White	103,709	36.6%	130,211	35.6%	127,416	35.9%
Hispanic	7,381	2.6%	11,742	3.2%	11,683	3.3%
Other	32,099	11.3%	45,911	12.5%	45,370	12.8%
Total	**283,697**	**100%**	**365,992**	**100%**	**355,271**	**100%**
Sex						
Female	132,442	46.7%	176,731	48.3%	169,710	47.8%
Male	151,255	53.3%	189,261	51.7%	185,561	52.2%
Total	**283,697**	**100%**	**365,992**	**100%**	**355,271**	**100%**
Region						
Baltimore City	63,790	22.5%	75,295	20.6%	73,183	20.6%
Baltimore Suburban	78,933	27.8%	104,316	28.5%	103,563	29.2%
Eastern Shore	27,722	9.8%	34,867	9.5%	34,517	9.7%
Southern Maryland	14,737	5.2%	19,085	5.2%	18,783	5.3%
Washington Suburban	75,962	26.8%	103,187	28.2%	96,027	27.0%
Western Maryland	22,127	7.8%	28,530	7.8%	28,390	8.0%
Out of State	426	0.2%	712	0.2%	808	0.2%
Total	**283,697**	**100%**	**365,992**	**100%**	**355,271**	**100%**
Age Group (Years)						
19–34	113,747	40.1%	157,449	43.0%	157,804	44.4%
35–49	75,418	26.6%	95,190	26.0%	87,520	24.6%
50–64	94,538	33.3%	113,353	31.0%	109,947	31.0%
Total	**283,697**	**100%**	**365,992**	**100%**	**355,271**	**100%**
Member Months						
1	16,108	5.7%	10,564	2.9%	17,097	4.8%
2	10,093	3.6%	10,207	2.8%	12,954	3.7%
3	7,976	2.8%	41,699	11.4%	9,951	2.8%
4	8,981	3.2%	20,537	5.6%	8,977	2.5%
5	7,629	2.7%	14,514	4.0%	9,139	2.6%
6	7,515	2.7%	12,976	3.6%	9,444	2.7%

	CY 2014		CY 2015		CY 2016	
	# of Enrollees	% of Total	# of Enrollees	% of Total	# of Enrollees	% of Total
7	12,784	4.5%	15,189	4.2%	10,062	2.8%
8	13,895	4.9%	15,505	4.2%	10,833	3.1%
9	19,031	6.7%	16,377	4.5%	11,610	3.3%
10	39,867	14.1%	14,477	4.0%	13,360	3.8%
11	21,563	7.6%	25,265	6.9%	19,167	5.4%
12	118,255	41.7%	168,682	46.1%	222,677	62.7%
Total	**283,697**	**100%**	**365,992**	**100%**	**355,271**	**100%**

Table 55 displays key demographic and enrollment characteristics of the expansion population with 12 months of enrollment in CY 2014 through CY 2016. The racial and regional distribution is similar to the expansion population with any period of enrollment. In CY 2014, women made up a larger percentage of the ACA population with 12 months of enrollment (51.8 percent) than the ACA population with any period of enrollment (46.7 percent). The percentage of women in the ACA population with 12 months of enrollment decreased to 49.5 percent in CY 2016. In CY 2014, participants aged 50 to 64 years composed the largest portion of the ACA expansion population with 12 months of enrollment; in contrast, the majority of participants with any period of enrollment were aged 19 to 34 years. However, by CY 2016, participants aged 19 to 34 years composed the largest portion of the ACA expansion population with 12 months of enrollment.

Table 55. ACA Medicaid Expansion Population Demographics for Participants Aged 19–64 Years, 12 months of Enrollment, CY 2014–CY 2016

	CY 2014		CY 2015		CY 2016	
	# of Enrollees	% of Total	# of Enrollees	% of Total	# of Enrollees	% of Total
Race/Ethnicity						
Asian	6,176	5.2%	9,245	5.5%	11,764	5.3%
Black	53,201	45.0%	71,433	42.4%	96,225	43.2%
White	46,509	39.3%	65,172	38.6%	82,122	36.9%
Hispanic	3,371	2.9%	5,829	3.5%	7,723	3.5%
Other	8,998	7.6%	17,003	10.1%	24,843	11.2%
Total	**118,255**	**100%**	**168,682**	**100%**	**222,677**	**100%**
Sex						
Female	61,213	51.8%	90,271	53.5%	110,197	49.5%
Male	57,042	48.2%	78,411	46.5%	112,480	50.5%
Total	**118,255**	**100%**	**168,682**	**100%**	**222,677**	**100%**
Region						
Baltimore City	27,754	23.5%	35,615	21.1%	47,279	21.2%
Baltimore Suburban	33,062	28.0%	49,413	29.3%	64,706	29.1%
Eastern Shore	12,577	10.6%	17,707	10.5%	22,574	10.1%
Southern Maryland	6,346	5.4%	9,021	5.4%	11,920	5.4%
Washington Suburban	28,529	24.1%	42,572	25.2%	57,669	25.9%
Western Maryland	9,809	8.3%	14,089	8.4%	18,105	8.1%
Out of State	178	0.2%	265	0.2%	424	0.2%
Total	**118,255**	**100%**	**168,682**	**100%**	**222,677**	**100%**
Age Group (Years)						
19–34	42,096	35.6%	63,047	37.4%	94,136	42.3%
35–49	33,038	27.9%	46,217	27.4%	55,774	25.1%
50–64	43,121	36.5%	59,418	35.2%	72,767	32.7%
Total	**118,255**	**100%**	**168,682**	**100%**	**222,677**	**100%**

ACA Medicaid Expansion Population Service Utilization

This section presents the health care utilization of participants who received Medicaid coverage through the ACA Medicaid expansion. Table 56 displays the number and percentage of participants who had an inpatient admission, ambulatory care visit, or outpatient ED visit in CY 2014 through CY 2016. This section presents measures for individuals with any period of enrollment and 12 months of enrollment. ACA Medicaid expansion participants with 12 continuous months of enrollment provide an MCO with more time and opportunities to intervene

in their health care compared to participants with any period of enrollment (anywhere from one day to a few months of coverage). Tracking the utilization of the ACA expansion population over the next several years will offer insights into the health conditions and health care utilization of the population. Key findings from Table 56, below, include the following:

- Overall, 9.4 percent of ACA Medicaid expansion participants with any period of enrollment had an inpatient admission in CY 2014, decreasing slightly to 9.2 percent in CY 2016. Participants who were enrolled for the entire year experienced a higher rate of inpatient admissions; their rates were 11.9 percent in CY 2014 and 10.2 percent in CY 2016.
- In both CY 2014 and CY 2015, roughly 61 percent of ACA Medicaid expansion participants with any period of enrollment had an ambulatory care visit; the rate increased to 66.6 percent in CY 2016. Visit rates decreased over the evaluation period for expansion participants enrolled for the entire year. Among those with 12 months of enrollment, 80.8 percent of participants in CY 2014 and 77.7 percent of participants in CY 2015 had an ambulatory care visit.
- In CY 2014, 31.4 percent of ACA Medicaid expansion participants with any period of enrollment had an ED visit. This rate increased to 39.6 percent for those enrolled for the entire year. Similar rates were observed in CY 2015 and CY 2016.

Table 56. Service Utilization of ACA Medicaid Expansion Population Aged 19–64 Years, by Enrollment Period, CY 2014–CY 2016

	CY 2014			CY 2015			CY 2016		
Enrollment Period	Number of Users	Total Enrollees	Percentage of Total	Number of Users	Total Enrollees	Percentage of Total	Number of Users	Total Enrollees	Percentage of Total
Inpatient Admissions									
Any	26,573	283,697	9.4%	31,087	365,992	8.5%	32622	355,271	9.2%
12 Months	14,028	118,255	11.9%	19,088	168,682	11.3%	22,670	222,677	10.2%
Ambulatory Care Visits									
Any	174,293	283,697	61.4%	225,794	365,992	61.7%	236,729	355,271	66.6%
12 Months	95,639	118,255	80.9%	138,728	168,682	82.2%	172,901	222,677	77.7%
Outpatient ED Visits									
Any	89,029	283,697	31.4%	110,071	365,992	30.1%	114,624	355,271	32.3%
12 Months	46,838	118,255	39.6%	65,587	168,682	38.9%	82,894	222,677	37.2%

Table 57 displays the number and percentage of participants who had at least one pharmacy claim or encounter during CY 2014 to CY 2016. Measures are presented for individuals with any period of enrollment and 12 months of enrollment. Overall, the percentage of ACA Medicaid

expansion participants with any period of enrollment who had at least one outpatient pharmacy prescription increased from 60.9 percent in CY 2014 to 66.0 percent in CY 2016. In contrast, ACA Medicaid participants with 12 months of enrollment experienced a decrease in pharmacy usage from 80.0 percent in CY 2014 to 76.9 percent in CY 2016.

Table 57. Pharmacy Utilization of ACA Medicaid Expansion Population, by Enrollment Period, CY 2014–CY 2016

	CY 2014			CY 2015			CY 2016		
Enrollment Period	Pharmacy Users	Total Enrollees	Percentage of Total	Pharmacy Users	Total Enrollees	Percentage of Total	Pharmacy Users	Total Enrollees	Percentage of Total
Any	172,703	283,697	60.9%	227,105	365,992	62.1%	234,635	355,271	66.0%
12 Months	94,647	118,255	80.0%	136,989	168,682	81.2%	171,179	222,677	76.9%

ACA Medicaid Expansion Population with Mental Health and Substance Use Disorders

This section presents the rates of behavioral health diagnoses among ACA Medicaid expansion participants. Table 58 shows the rates of MHDs, SUDs, and co-occurring MHD and SUD conditions among ACA Medicaid expansion participants aged 19 to 64 years. Rates are shown for those with any period of enrollment and 12 months of enrollment in CY 2014 through CY 2016.

The percentages of participants diagnosed with an MHD, SUD, or co-occurring MHD and SUD were higher among participants who were enrolled for a 12-month period than participants with any period enrollment. The percentage of participants with any period of enrollment and an MHD only increased slightly across the measurement period: from 9.4 percent in CY 2014 to 10.6 percent in CY 2016. The percentage of participants with any period of enrollment and an SUD was 6.7 percent in both CY 2014 and CY 2016. The percentage of participants with any period of enrollment and a dual diagnosis increased slightly: from 4.5 percent in CY 2014 to 5.1 percent in CY 2016.

Table 58. Behavioral Health Diagnosis of ACA Medicaid Expansion Population Aged 19–64 Years, by Enrollment Period, CY 2014–CY 2016

	CY 2014			CY 2015			CY 2016		
Enrollment Period	# of Participants	Total Participants	% of Total	# of Participants	Total Participants	% of Total	# of Participants	Total Participants	% of Total
MHD Only									
Any	26,774	283,697	9.4%	35,123	365,992	9.6%	37,637	355,271	10.6%
12 Months	15,504	118,255	13.1%	22,559	168,682	13.4%	27,742	222,677	12.5%
SUD Only									
Any	18,911	283,697	6.7%	21,529	365,992	5.9%	23,739	355,271	6.7%
12 Months	10,234	118,255	8.7%	12,518	168,682	7.4%	16,717	222,677	7.5%
Dual Diagnosis (MHD and SUD)									
Any	12,666	283,697	4.5%	15,899	365,992	4.3%	18,100	355,271	5.1%
12 Months	8,356	118,255	7.1%	11,252	168,682	6.7%	14,501	222,677	6.5%
None									
Any	225,346	283,697	79.4%	293,441	365,992	80.2%	275,795	355,271	77.6%
12 Months	84,161	118,255	71.2%	122,353	168,682	72.5%	163,717	222,677	73.5%

Section V Summary

This section of the report examined the demographic characteristics and health care utilization of the ACA Medicaid expansion population between CY 2014 and CY 2016. A majority of the population resided in Baltimore City and the Washington and Baltimore Suburban regions. The percentage of participants with any period of enrollment who had at least one ambulatory care visit remained stable at slightly above 61 percent in CY 2014 and CY 2015 but increased to 66.6 percent in CY 2016. There was a minor decrease in the percentage of participants who had at least one inpatient admission from CY 2014 to CY 2016 and a slight increase in the percentage of participants with at least one outpatient ED visit. In CY 2014, 9.4 percent of participants with any period of enrollment in an ACA coverage group had an inpatient visit; this rate dropped to 8.5 percent in CY 2015 but rose back to 9.2 percent in CY 2016. Among the same group of participants, 31.4 percent had at least one ED visit in CY 2014, compared to 30.1 percent in CY 2015 and 32.3 percent in CY 2016.

Participants who were enrolled in Medicaid for 12 months were more likely to have had an ambulatory care visit, ED visit, or inpatient admission. In addition, this group had a higher rate of diagnosis of behavioral health conditions.

Conclusion

HealthChoice is a mature managed care program that covered nearly 21 percent of Marylanders during CY 2016. 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 rates of breast cancer screenings, ambulatory care visits among children in foster care, and HbA1c testing among participants with diabetes. Among individuals with HIV/AIDS, ambulatory care service utilization, CD4 testing, and viral load testing rates increased, while ED utilization dropped. The percentage of HealthChoice participants aged 19 to 64 years with at least one inpatient admission declined by 3.7 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 markedly increased enrollment in CY 2014 through CY 2016 compared to prior years. As these HealthChoice participants begin to understand how to navigate and use their newly-obtained full-benefit coverage, it is expected that there will be an increase in their service utilization rates across the spectrum of somatic and behavioral health services. In addition, the state's chronic health home demonstration is currently underway, and other programs—such as the Residential Treatment for Individuals with SUD Program and the Evidence-Based Home Visiting Service Pilot Program—began in July 2017.

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 improving diabetes care, reducing racial and ethnic disparities, and increasing rates of cervical cancer screening. The Department is committed to working with CMS and other stakeholders to identify and address necessary programmatic changes.

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Appendix A. Coverage Category Definitions

Table A1. Coverage Category Inclusion Criteria

Coverage Category	Inclusion Criteria		
Disabled	Coverage Group = A04, H01, H98, H99, L01, L98, L99, S01, S02, S03, S04, S05, S06, S07, S08, S10, S13, S14, S16, S98, S99, T01, T02, T03, T04, T05, T99		
MCHP	Coverage Group = D02, D04, P13, P14		
	OR		
	Coverage Group = F05, P06, P07	AND	Coverage Type = "S"
ACA Expansion	Coverage Group = A01, A02, A03, S09		
Families & Children	All other Coverage Groups/Coverage Types		

Table A2. Medicaid Coverage Group Descriptions

Coverage Group	Description
A01	Childless Adults < 65, 138% FPL, former PAC
A02	Childless Adults < 65, 138% FPL, inc disabled
A03	Parents and Caretaker Relative 124%-138% FPL
A04	Disabled Adults, no Medicare 77% FPL
C13	Presumptive Eligibility
D01	Employer Sponsored Insurance (ESI),200%-250% FPL
D02	MCHP Premium, 212%-264% FPL
D03	Employer Sponsored Insurance (ESI),250%-300% FPL
D04	MCHP Premium, 265%-322% FPL
E01	IV-E Adoption & Foster Care
E02	FAC Foster Care
E03	State-Funded Foster Care
E04	State-Funded Subsidized Adoption
E05	Former Foster Care up to 26 years old
F01	TCA Recipients
F02	Post-TCA: Earnings Extension
F03	Post-TCA: Support Extension
F04	FAC Non-MA Requirement
F05	Parents/Primary Caretakers and Children <123% FPL
F98	Children 19 and 20 123% FPL
F99	FAC - Med Needy Spenddown
G01	Refugee Cash Assistance
G02	Post RCA: Earnings Extension
G98	Refugee Med Needy Non-Spenddown

Coverage Group	Description
G99	Refugee Med Needy Spenddown
H01	HCB Waiver
H98	HCB Waiver Med Needy
H99	HCB Waiver Spenddown
L01	SSI Recipient in LTC
L98	ABD Long Term Care
L99	ABD Long Term Care Spenddown
P01	GPA to Pregnant Women (ended 7/97)
P02	Pregnant Women up to 189% FPL
P03	Newborns
P04	Med Needy Newborns (ended 6/30/98)
P05	Newborns of PWC Moms (ended 6/30/98)
P06	Newborns of Elig Mothers and their < 1
P07	Children 1-19 , 1-6 143% FPL, 6-19 138% FPL
P08	Child Under 19, up to 100% FPL
P09	Maryland Kids Count (ended 6/30/98)
P10	Family Planning Program (FPP)
P11	Pregnant Women 190% - 264% of FPL
P12	Newborns of P11 Mothers
P13	Child Under 19, up to 189% FPL
P14	Title XXI MCHP. under 19, 190-211% FPL
S01	Public Assistance to Adults (PAA)
S02	SSI Recipients
S03	Qualified Medicare Beneficiary (QMB)
S04	Pickle Amendment
S05	Section 5103
S06	Qualified Disabled Working Individuals
S07	SLMB group I
S08	SLMB/MPAP
S09	MPAP Prior to FY07 (ended 12/31/13)
S10	QMB and MPAP
S11	TEMHA/MPAP
S12	Family Planning Program/MPAP
S13	ACE or EID
S14	SLMB group II
S15	SLMB group III
S16	Increased Community Services Program (ICS) formerly MPDP
S17	MPDP/SLMB I

Coverage Group	Description
S18	MPDP/SLMB II
S98	ABD - Med Needy
S99	ABD – Spenddown
T01	TCA Adult or Child In LTC
T02	Family LTC Med Needy
T03	Medicaid Child Under 1 in LTC
T04	Medicaid Child Under 6 in LTC
T05	Medicaid Child Under 19 in LTC
T99	Family LTC Med Needy Spenddown
W01	Women's Breast & CC
X01	State-Funded Aliens
X02	MAGI and Non-MAGI Undocumented or Ineligible Aliens, Emergency Services only
X03	MAGI Undocumented or Ineligible Aliens (dropped 2/15/17)

Table A3. Medicaid Coverage Type Descriptions

Coverage Type	Description
A	Aged
B	Blind
C	Complimentary Coverage
D	Disabled
E	FC and SA
F	Family
G	Refugee
H	HCB Waiver
M	Medicaid Only
N	Not in CARES
P	Pregnant
R	Regular
T	Family LTC
U	Unemployed
X	Miscellaneous

Appendix B. MCO Enrollment by County

Table B. MCO Enrollment by County, CY 2016

County Name	Amerigroup		JAI		Kaiser		MPC		MedStar		Priority Partners		Riverside		United		Total	
	Number of Enrollees	Percentage of Enrollees	Number of Enrollees	Percentage of Enrollees	Number of Enrollees	Percentage of Enrollees	Number of Enrollees	Percentage of Enrollees	Number of Enrollees	Percentage of Enrollees	Number of Enrollees	Percentage of Enrollees	Number of Enrollees	Percentage of Enrollees	Number of Enrollees	Percentage of Enrollees	Number of Enrollees	Percentage of Enrollees
Allegany	1,006	5.3%	*		*		16,253	85.25%	18	0.1%	1,015	5.3%	*		746	3.9%	19,064	100%
Anne Arundel	19,035	22.0%	656	0.8%	4,130	4.8%	9,543	11.02%	6,725	7.8%	29,089	33.6%	2,321	2.7%	15,077	17.4%	86,576	100%
Baltimore City	57,091	23.9%	20,218	8.5%	4,905	2.1%	52,200	21.85%	19,744	8.3%	56,155	23.5%	6,271	2.6%	22,341	9.4%	238,925	100%
Baltimore County	46,249	25.7%	6,816	3.8%	7,374	4.1%	25,382	14.10%	27,724	15.4%	36,767	20.4%	4,197	2.3%	25,536	14.2%	180,045	100%
Calvert	2,144	15.8%	17	0.1%	490	3.6%	6,595	48.69%	91	0.7%	1,664	12.3%	628	4.6%	1,917	14.2%	13,546	100%
Caroline	410	3.8%	*		*		956	8.75%	23	0.2%	8,412	77.0%	628	5.7%	485	4.4%	10,923	100%
Carroll	3,338	15.5%	29	0.1%	37	0.2%	6,760	31.31%	123	0.6%	4,853	22.5%	1,463	6.8%	4,987	23.1%	21,590	100%
Cecil	6,103	24.1%	13	0.1%	15	0.1%	6,884	27.15%	135	0.5%	3,091	12.2%	4,563	18.0%	4,550	17.9%	25,354	100%
Charles	4,519	15.2%	*		1,725	5.8%	4,829	16.27%	3,013	10.2%	4,338	14.6%	*		10,477	35.3%	29,677	100%
Dorchester	409	3.5%	*		*		1,242	10.77%	*		8,589	74.5%	586	5.1%	682	5.9%	11,535	100%
Frederick	7,383	19.8%	15	0.0%	195	0.5%	11,236	30.06%	124	0.3%	9,526	25.5%	2,082	5.6%	6,816	18.2%	37,377	100%
Garrett	375	4.8%	*		*		6,754	87.22%	*		307	4.0%	*		299	3.9%	7,744	100%
Harford	4,853	11.8%	131	0.3%	1,351	3.3%	6,039	14.73%	5,654	13.8%	11,832	28.9%	1,725	4.2%	9,422	23.0%	41,007	100%
Howard	10,020	24.5%	131	0.3%	2,759	6.7%	6,796	16.60%	525	1.3%	12,188	29.8%	1,270	3.1%	7,240	17.7%	40,929	100%
Kent	337	7.4%	*		*		414	9.10%	*		2,836	62.4%	591	13.0%	359	7.9%	4,548	100%
Montgomery	62,407	37.0%	24	0.0%	15,560	9.2%	16,569	9.83%	9,921	5.9%	29,804	17.7%	4,715	2.8%	29,506	17.5%	168,506	100%
Out of State	234	17.3%	26	1.9%	108	8.0%	283	20.90%	84	6.2%	379	28.0%	76	5.6%	164	12.1%	1,354	100%
Prince George's	77,081	35.4%	59	0.0%	23,684	10.9%	22,495	10.32%	17,125	7.9%	34,090	15.6%	7,078	3.2%	36,370	16.7%	217,982	100%
Queen Anne's	586	7.2%	*		*		553	6.78%	27	0.3%	5,701	69.9%	543	6.7%	734	9.0%	8,155	100%
Somerset	496	6.3%	*		*		1,159	14.62%	*		5,396	68.1%	453	5.7%	411	5.2%	7,929	100%
St. Mary's	2,754	12.9%	*		420	2.0%	5,125	24.02%	3,073	14.4%	4,546	21.3%	*		4,931	23.1%	21,332	100%
Talbot	88	1.2%	*		*		592	7.86%	*		5,915	78.5%	564	7.5%	360	4.8%	7,535	100%

County Name	Amerigroup		JAI		Kaiser		MPC		MedStar		Priority Partners		Riverside		United		Total	
	Number of Enrollees	Percentage of Enrollees	Number of Enrollees	Percentage of Enrollees	Number of Enrollees	Percentage of Enrollees	Number of Enrollees	Percentage of Enrollees	Number of Enrollees	Percentage of Enrollees	Number of Enrollees	Percentage of Enrollees	Number of Enrollees	Percentage of Enrollees	Number of Enrollees	Percentage of Enrollees	Number of Enrollees	Percentage of Enrollees
Washington	2,819	7.1%	12	0.0%	53	0.1%	26,647	66.91%	52	0.1%	6,858	17.2%	129	0.3%	3,255	8.2%	39,825	100%
Wicomico	1,670	5.3%	*		*		4,331	13.63%	36	0.1%	22,710	71.5%	1,805	5.7%	1,209	3.8%	31,777	100%
Worcester	898	7.1%	*		*		1,296	10.31%	17	0.1%	8,678	69.0%	721	5.7%	957	7.6%	12,572	100%
Total	**312,305**	**24.3%**	**28,189**	**2.2%**	**62,861**	**4.9%**	**240,933**	**18.7%**	**94,276**	**7.3%**	**314,739**	**24.5%**	**43,673**	**3.4%**	**188,831**	**14.7%**	**1,285,807**	**100%**

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